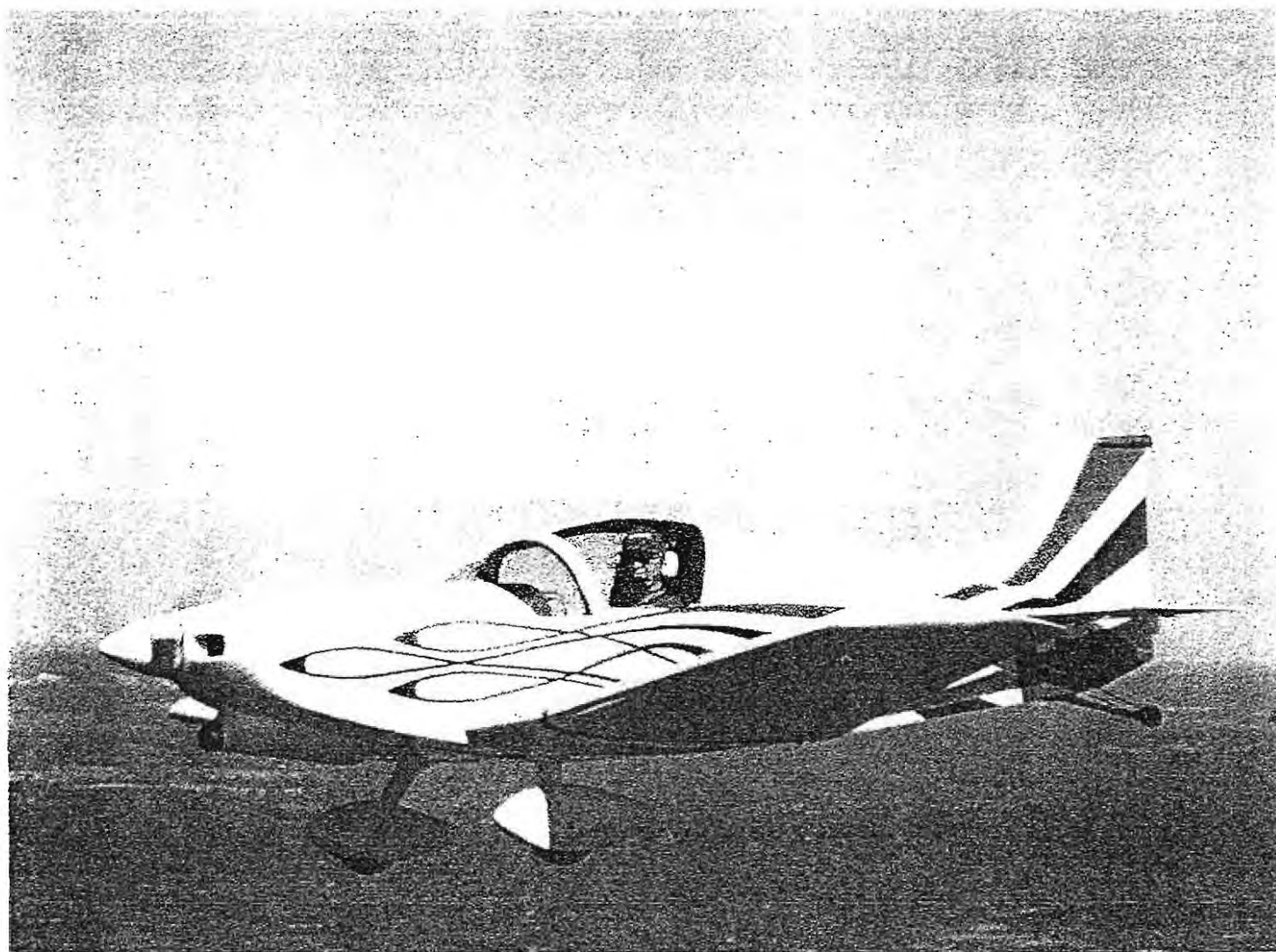


Corvairisation

www.corvairs.org

Tucson Corvair Association
Volume 27, Number 2

Tucson, Arizona
February 2001



Marty Langford's Corvair-powered KR-2S

Dues are due!! Elections this Month
Tune up Session at Bakers' Saturday

Tucson Corvair Association
Established 1975

Corvairsation is a monthly publication of the Tucson Corvair Association, which is dedicated to the preservation of the Corvair model of the Chevrolet Motor Division of General Motors. The Tucson Corvair Association is a chartered member of the Corvair Society of American (CORSA), Chapter 857.

Monthly Meetings are held on the fourth Wednesday of each month, except December. One technical/social event is planned for each month except August.

Membership Dues are \$15 per year for singles and \$18 per year for families. Initial dues are \$15 for singles and \$22 for families (includes name tags). Make checks payable to Tucson Corvair Association.

Change of Address: Report any change of address or phone number to the Membership Chairperson. Do not report such changes to the Corvairsation Editor.

CORSA Membership Dues are \$30 per year (\$70 for 26 months) and include a subscription to the CORSA Communique, a monthly publication. CORSA membership is not required for membership in the TCA, but is highly recommended. See any TCA officer for more information.

Classified Ads are free to members and \$2.50 per 4-line ad to all others.

Deadline for all materials submitted for publication in the Corvairsation is the 10th for that month's issue. Mail or deliver all materials to the Corvairsation Editor.

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Prez Sez

Happy Valentine's Day! Be sure and honor your Corvair on Valentine's Day. We all have a special love affair with our Corvairs and one way you can show that is to bring your Corvair Saturday to Dave Baker's annual margarita & hot dog tune up clinic. Our last get together in January at Tubac for the car show was great. A really beautiful day with the cars.

We are looking for volunteers to help with storage of the club's new Corvair parts inventory. If anyone knows of some extra indoor space, empty garage or storage shed we could sure use your help.

See you at Dave's Saturday!!

Thanks, Barry



from the editor.....

The tune up clinic at the Bakers' is at Dave's shop which is in the alley behind 4456 East 4th Street. (The rain date is February 24) Bring any parts you may need, the mechanics are ready to make your Corvair run great. See you and your Corvair there!

Our February meeting on the 21st is election day for officer in the Tucson Corvair Association. The Nominating Committee has presented the following slate of officers:

President	-----	Barry Cunningham,
Vice President	----	Chris Cunningham,
Treasurer	-----	Allen Elvick,
Secretary	-----	Tim Green.

The floor will be open for any other nominations. Please be there and exercise your voting privilege and show your support of the club.

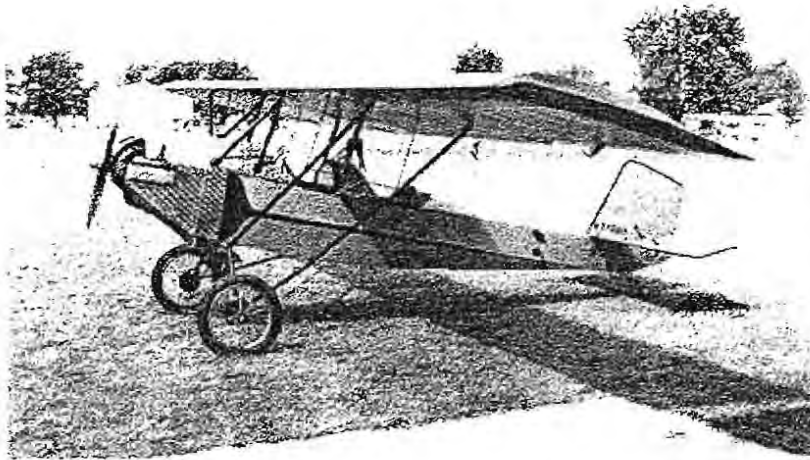
What about that cover picture? And there is more! The feature article this month by Van Pershing is all about Corvair powered aircraft. Hope you enjoy it.



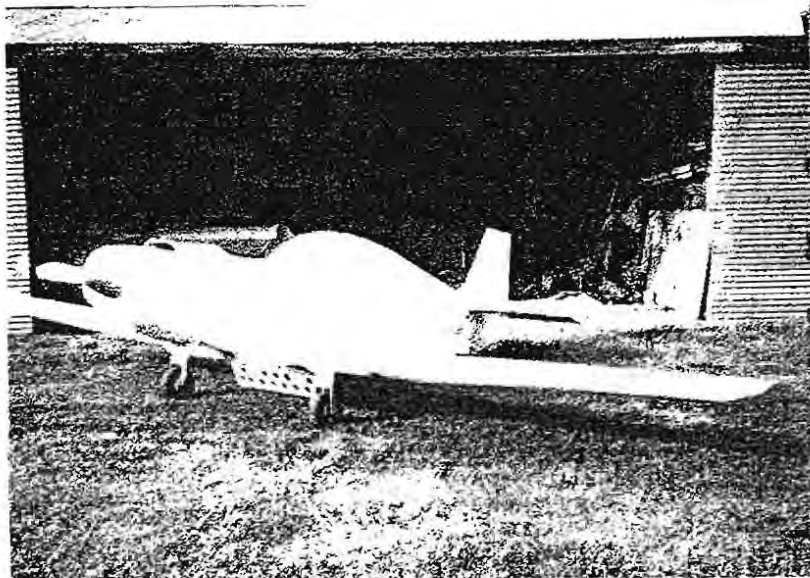
Corvaír-Powered Airplanes

Van Pershing

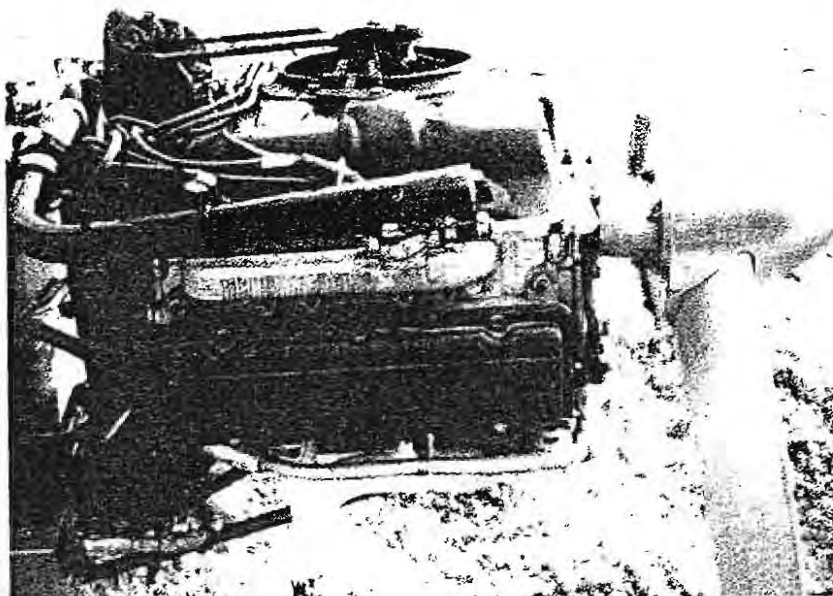
Every time I go to look for something on the internet I am totally amazed. I'm sure there is something about everything under the sun there including a plethora of information about Corvairs that fly. There are literally hundreds of sites that have information about Corvaír-powered airplanes and what it takes to convert a Corvaír engine into one of the most dependable engines used by experimental home-built aircraft enthusiasts. So, what do these crazy people put Corvaír engines into? Here's a very partial look.



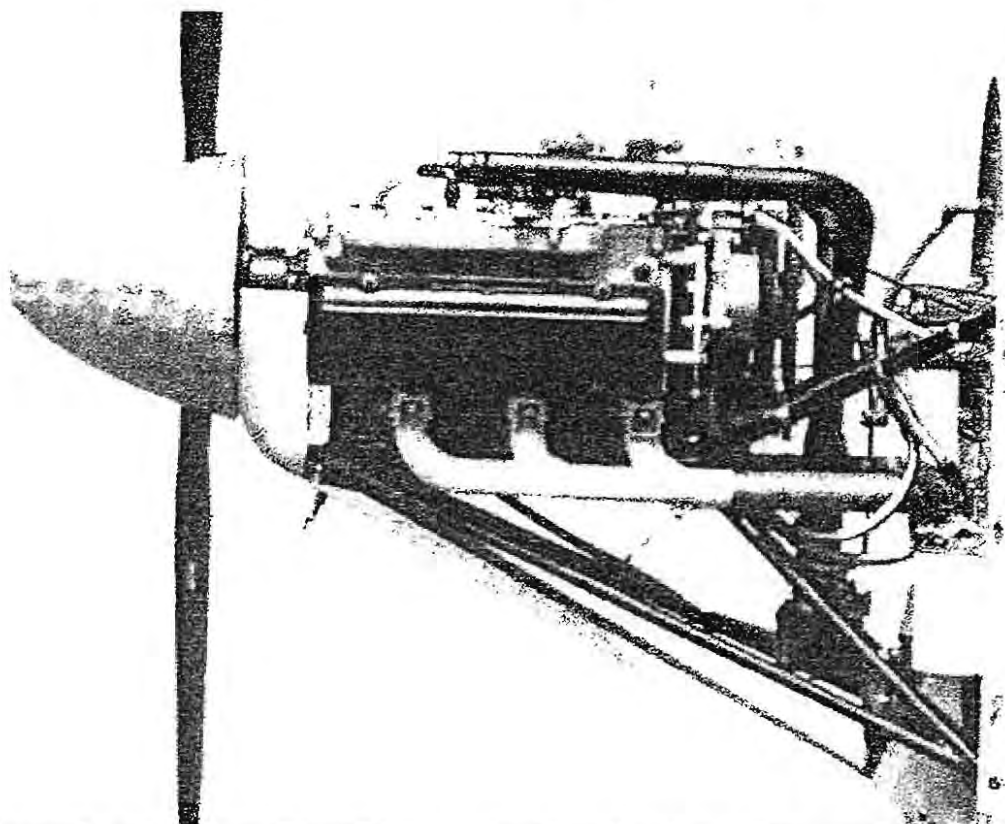
This is a design that has been around since the late 20s. It was original powered by a Ford Model A engine. Today the Pietenpol Air Camper is powered by more modern power plants, one of the most popular being the Corvaír 110hp.



This is a KR-2 belongs to Howard Hoops. It's capable of 170 mph with its Corvaír engine. The cover photo is a KR-2S, a slightly different model of the same home-built aircraft.



Here's the engine presently in Howard's KR-2. Some of the engines used in these home-built aircraft are amazingly simple and others are modified to the hilt. This one is a simple one.



A view of Marty Langford's engine. This is what's powering the KR-2S featured on the cover of this issue.



This home-built is a W-8 Tailwind owned by Glen Divers. Not as fast as the KS-2 but a little more practical and just as much fun.

Picking a 110 hp engine

Here's how to pick a 110 hp engine, quoted from Brent at the Corvair Center Forum:

"Fully half the Corvairs built from 1965-67 have a 110 HP Powerglide and the suffix code for this engine is RH- its common and a good engine. A worn out core that still runs is worth a couple hundred dollars, a really good used one is worth about a grand. I'd buy the best you can find, it's cheaper in the long run.

T1214RH would be an example, all will have a number like this-the number indicates the date of engine manufacture, in this case, December 14 of whatever year-

Powerglide engines are superior rebuild candidates generally speaking, as the automatic limits the abuse potential. Things like connecting rods have significantly greater service life left in them on Powerglides of equivalent history to manual transmission engines of similar type.

The RH code means also that the engine had neither factory Air Conditioning, nor an Air Injection Reactor- this is a plus, as (the latter especially,) they both increase engine temperatures somewhat.

Normal lifespan of this engine in normal service is 150,000 ish miles. Many have gone twice that far. Also, many 1966 versions of this engine have the 95 HP cam, as Chevrolet apparently swapped it in production for a while here are all the suffix codes for 95-110 hp engines for 1965-1969: RA, RD, RE, RF, RG, RH, RJ, RK, RR, RS, RU, RV, RW, RX, QO, QP, QS, AC, AD, AE . Most combinations are oddballs, like AIR or A/C combos, or manual transmission jobs.

There's not too much risk of getting a 140/145 cid engine in a later case, but things can happen."

Selecting the right Corvair engine for your homebuilt

by Robert Finch

Reprinted from the May, 1979 Air-Vair News letter edited by J. Hartley Locher... (a copy of which was provided to Grant McLaren by Vi Kapler -1033 Forest Hills Dr., SW, Rochester MN 55902) ... interesting reading from an era when BHP had been successfully flying a Corvair for at least fourteen years.

Corvair engines can be expected to produce from 60 to 140 horsepower in direct-drive configuration, and from 80 to 150 horsepower in rear-drive configuration! Take a look at a list of homebuilt airplanes and the horsepower engines they require or will accept and you can include about 90% of all homebuilts in your list of airplanes that can use from 60 to 180 hp Corvair engines! Of course no homebuilt designer wants his airplane built by a homebuilder to crash and hurt someone, so he will strongly advise against the use of any but the most reliable engine for his design.

Burt Rutan of Vari-Eze fame advises if you want to try a non-certified engine, put it in a proven airframe such as a Piper Cub. At least that way you don't have to cope with two unknowns on your first flight. This one factor is probably the main reason such a large number of homebuilts never fly. I would suggest using a Cessna 150 as a test bed for your experimental Corvair engine set-up. Or buy a used homebuilt like a Pietyenpol that has many hours of trouble-free flying time on it and you will probably get your Corvair engine in the air a whole lot sooner!

CHOOSING A SPECIFIC ENGINE: 1) A new one from Chevrolet is the best and cheapest way to go in the long run ... yes, you can still buy a new 145 CID 102 hp '62-'63 engine from the parts department at your local Chevrolet dealer. The price (early 1978) is averaging \$800.00. 2) The second-best engine would be a medium-time, never-over-hauled 1964-to-1969 engine, and just do a seal job on it without taking the heads off. Just inspect it for sludge deposits, and leave it together. It probably would run five years that way. 3) Find a high time, 100,000-mile engine that needs an overhaul because of no compression on one or more cylinders, and expect to spend \$800 for parts and outside labor to TOTALLY "major" it. That price for an overhaul is not so bad when you find out that a crankshaft for a Continental 0-200 costs over \$1100.00!!! 4) The last choice is any Corvair engine that has "just been overhauled," especially if it had a ring job and not all-new cylinders assemblies. From long, long experience I say you can expect to have problems with this kind of an engine if you don't go all the way through it and thoroughly inspect every single part for damage caused by a poor overhaul job. Expect to spend at least as much for parts for this engine as you would a new one.

CONVERTING THE ENGINE FOR AIRCRAFT USE: Dual ignition is usually the first topic to come tip. Dual ignition is still used on all certified aircraft engines today for three main reasons: Reason #1) A 140 hp Lycoming has huge 5.125 inch diameter cylinders with a displacement of eighty cubic inches in each cylinder!! And the spark plug can just not ignite that much fuel in the time allowed for combustion. (A 140 hp Corvair has a 3.4375 inch cylinder diameter and a displacement of only 27.3 inches per cylinder, and a modern squish-chamber cylinder head design.) The Lycoming or Continental engine has 2 spark plugs cylinder to from fouling out the spark plugs, whereas Corvair air engines run just fine with one plug to fire the mixture!! Reason #2) Most people think that dual ignition is a safety factor. The Feds also consider it a safety factor. Reason #3) The Feds say you must have dual ignition!! Then for safety, why don't they make you have dual pilots, dual engines? dual landing gear? dual propellers? dual carburetors? (If one iced up, you could switch to the other?) dual valves, dual pistons, dual wings, rudders, etc., etc., etc., Well, the point here is that if any of these systems is in good shape and doing its job you don't need but one of any given system. Also, if you did have dual mags on your Corvair, they would probably deteriorate at the same rate and then what do you have? Dual bad mags?

"Corvair Distributor, if rebuilt every 50,000 miles or 1,000 hours, and if the points and condenser are replaced every 200 hours, it will do the job just as good as ANY magneto or better than any transistor ignition available today. All you need for ignition is the stock distributor 12 volt coil, a dropping a resistor like is used in early Corvair ignitions and a small motorcycle battery and a means to keep the battery charged. I feel this would be much safer than to try to adapt dual magnetos to a Corvair engine.

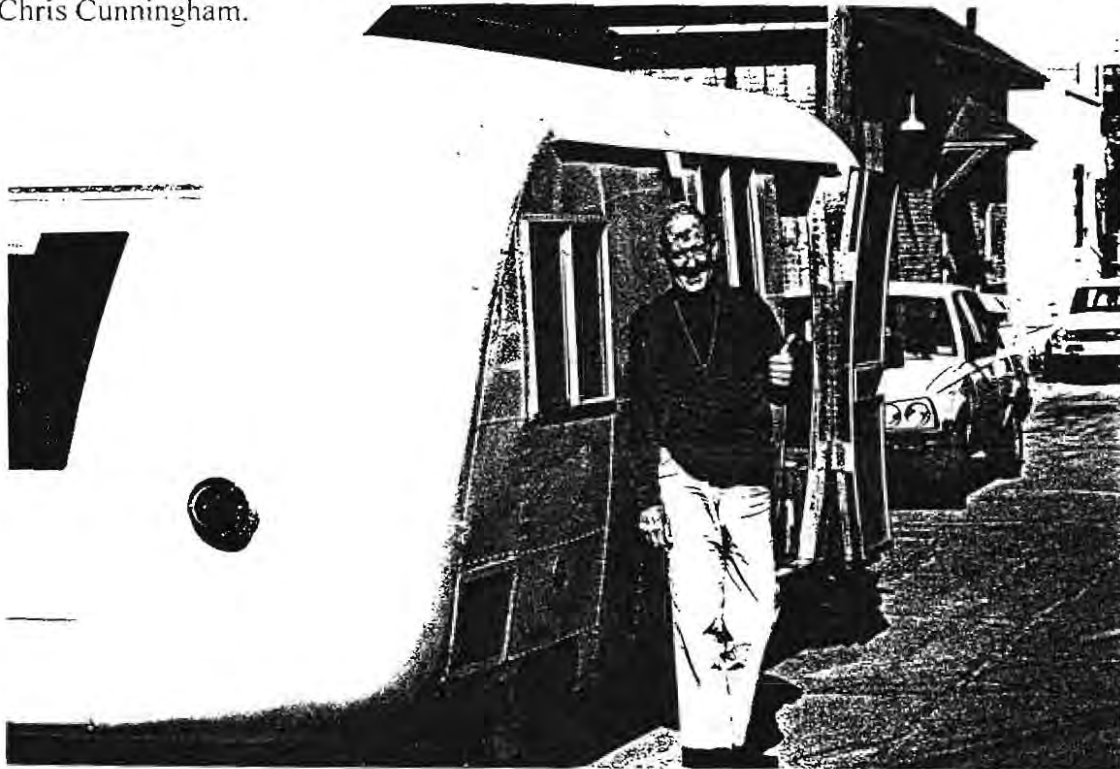
DIRECT/DRIVE OR GEAR DRIVE? Gear-drive costs more weighs more, takes a lot longer to set up the first time but allows from 50%-100% more power output. It can be almost as good as an extra engine at much less cost and much less weight. The question is, do you need the extra power or will the airplane perform adequately with a direct-drive Corvair engine putting out approximately 70% of its rated horsepower? The answer to that question is strictly up to the individual.

"By now, because of those who have successfully flown Corvair-powered airplanes, we know for sure that the Corvair makes a good airplane engine. The main reason for picking a Corvair engine over a Continental 0-200 is that it costs just about ONE TENTH as much in any given condition, to say nothing of the fact that it is ten times smoother running than the 0-200, every town and hamlet has a Chevy parts department and even the local auto wrecking yard has usable parts!"

You can tell that the above was written some time ago. Wouldn't it be great to buy a new 110 for \$800 at the Chevy dealer?? If you'd like to see much more than we've shown here, log on to William Wayne's site. He is the all-knowing Guru of Corvairs when it comes to the use of their engines in airplanes. He can be found at www.flycorvair.com.

YOU SEE THEM EVERYWHERE

Corvairs are everywhere!! Now you have seen a Corvair-powered airplane, but how observant are you? How about commercials on TV? I like the Visa one where the guy and his girl are in the tattoo parlor and he is caught short of cash and ends with the inscription 'Don' instead of 'Donna' on his arm. Look closely as they leave the shop, there is an early model Corvair sitting at the curb. Then there is the Compac Computer ad showing a great stack of evolutionary electronics mounted in a Greenbrier. At the car nuts show in Tubac last month there was a Corvair-powered motorcycle. One of my favorites was a forward control pickup with a Corvair-powered trailer in tow seen years ago at the Palm Springs fan belt toss. How about Ultravans? Below are a couple of pictures of one driven by this Floridian during his stop in Tucson last summer. Photos by Chris Cunningham.



Spares & Vairs

For Sale: 1962 4-Door Monza, automatic, factory air conditioning, 85K original miles. \$3250. Call Dick (520) 299-4723.

For Sale: Corvair parts - Large outdoor yard full of Corvairs and parts, Call Barry Cunningham at (520) 747-9028.

For Sale: 1963 Monza Coupe, Red, 4speed, completely restored in and out. Brand new interior and tires. A beauty. \$11,000 invested. Sell for \$3700. Call Don at (520) 743-3346.

For Sale: 1948 Packard Call Gordon at (520) 299-1122.

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