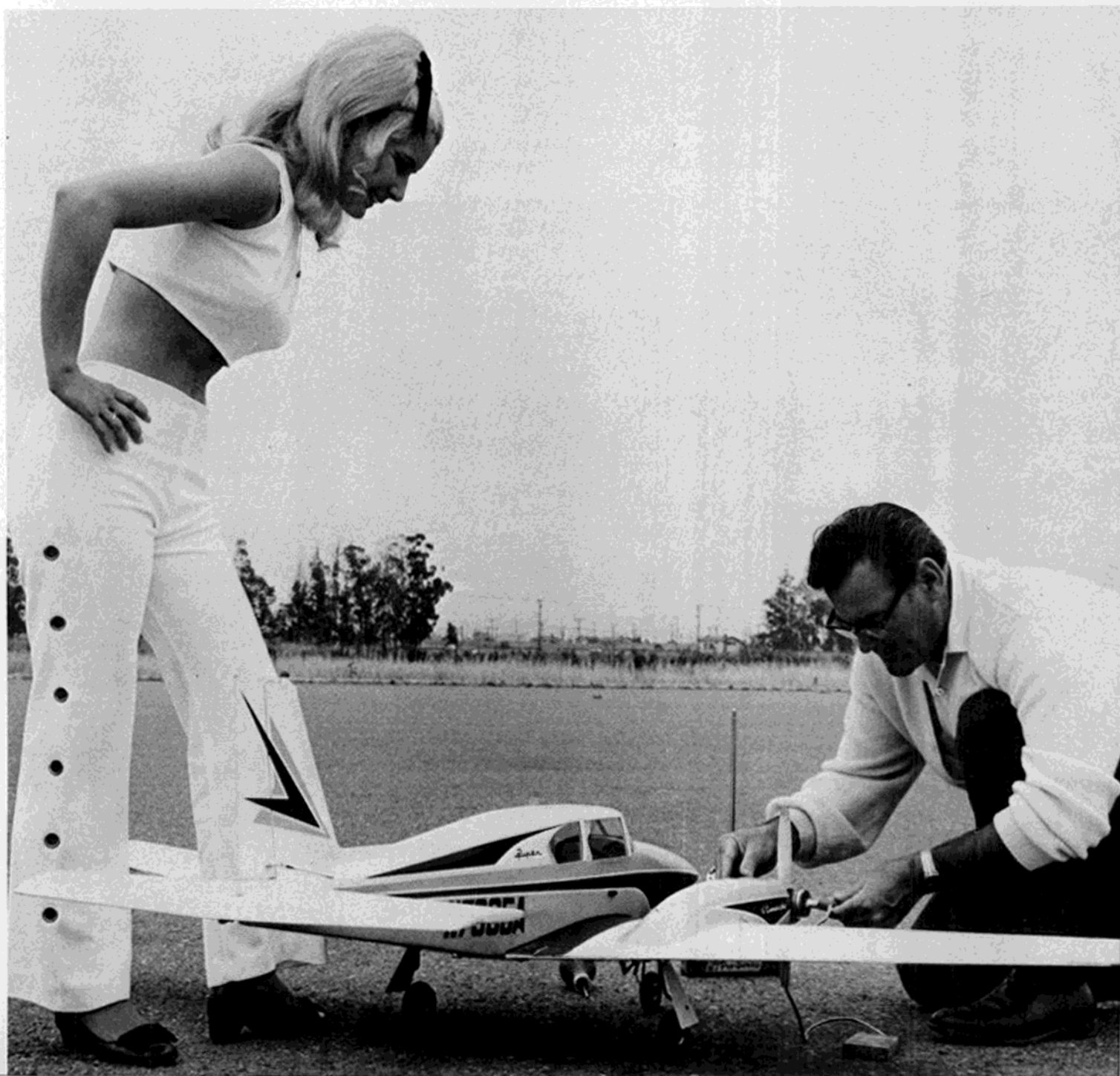




# PIPER COMANCHE

5TH PLACE INTERNATS SCALE  
WINNER, JOE BRIDI, PRESENTS THE SPORT  
SCALE SHIP HE FLIES FOR FUN.

PHOTOS BY BOB RAMIREZ



As with most scale models, general information and details are hard to obtain. You can spend many hours, weeks, and even months, researching a suitable aircraft for scale modeling. Accurate three-view drawings, of an approved source, is a must; cabin or cockpit details, landing gear and wheels, finish, etc., are all equally important when attempting to choose and build a scale project.

The Piper "Twin Comanche" was picked in this case because of its availability at the local airport. I was able to obtain suitable three-view prints from the local Piper dealer and, having the actual aircraft in the area for reference, I could take photos and refer to the aircraft for details whenever it was necessary.

The model itself worked well for construction purposes. Its clean design and attractive colors for painting and trimming has made this scale model eye-appealing in every way.

We will be going into some of the construction details that were used. We did deviate from scale in certain areas to speed construction time and also make the model more eye-appealing. If we were to give a percentage of accuracy for this model, I'd say it would be 75% scale.

#### **Wing**

The wing construction on a scale twin engine of this type is the engine mounting platform type. The original Comanche was built with styrofoam wing cores. This speeded up the construction time a bit. We've detailed all of the ribs separately in case you would like to make a built-up type. If you wish to cut a "foam" wing use only the ribs necessary to cut your core. The "foam" wing was planked with 1/16" balsa and had a full trailing edge of balsa for reinforcing. The landing gear was attached in regular class "C" manner. The flaps were also used as per scale.

The engine pods were made of solid balsa block epoxied to the wing followed by 1/2 inch leather fillets. The engine nacelles were vacuum formed from plastic, although they can also be made from fiberglass; this

is not too difficult, since the nacelle is carved and shaped with the pod and you already have the making of a mold for this purpose. Simply cut the nacelle for use as a male mold if desired. The engines were radially mounted on removable firewalls for easy access to the fuel tanks with all venting done inside the nacelles, themselves. Careful construction techniques are required on the engine mounts due to twin engine vibration. A "Twin" seems to go in and out of harmonics and this sets up a tremendous vibration.

#### **Fuselage**

The fuselage was made narrower than scale for improved appearance. The construction is both standard and easy. It consists, basically, of two large sides, which are brought together in the front with top and bottom blocks glued together similar to the old Stormer construction. The frame around the windshield and windows is 1/16" plywood and is installed early in the construction stage, and before the top cabin block is glued into position. All of the cabin details will have to be finished before sealing the cabin. This includes the side curtains, seats, dash, carpet and headliner, all of which are completed while still constructing the fuselage.

#### **Stab and Rudder**

The actual stab on the larger aircraft is in one piece, but we chose to use standard R/C type construction here of the fixed, and more conventional, style. If you plan on entering scale competition and want to place high on the list, I suggest you obtain the three-views and re-do the stab to scale configuration.

#### **Painting**

Before painting the Comanche, check with your local Piper dealer as to various colors and trims. Colored photos can also be helpful and are often available. The original model was painted with acrylic lucite, with the colors available at auto paint supply stores by factory code numbers. I would suggest checking into the acrylic material before using - the Comanche, after 4 years of usage,

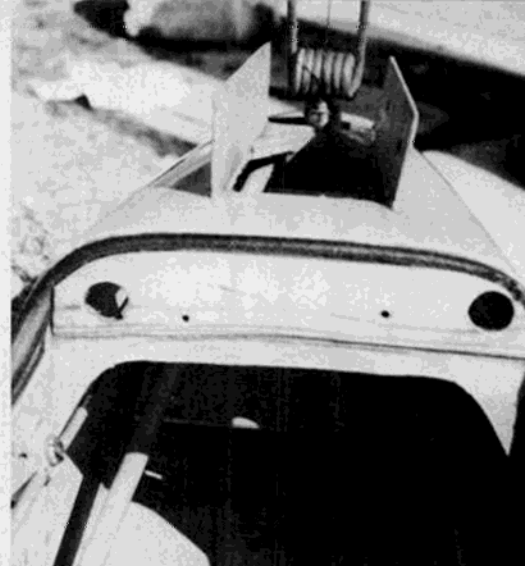
shows check marks and splits in the finish.

#### **Test Flying**

Here's where the fun begins! The extra engine should be considered a LIABILITY instead of an asset. Absolute reliability with both top R.P.M. and idle is a MUST! The two engines you employ have to be tops in all ways. I used 2 Merco "49's" with Fox "59" carburetors. To date, I have at least 60 flights and only once did I lose an engine. This was also a surprise to me, since I had lost the engine at high speed, and I was able to control the model with only slight aileron correction. I have flown a few other "Twins" and they can be a barrel of snakes with only one engine working. If attempting Touch-and-Go's, stay on the ground until both engines come on strong before lift-off. The engine noise produced by a twin is something to remember! I don't think there's anything more pleasing to the ear than hearing a Twin flying and the stimulating roar of both engines. Believe me, it's worth all the trouble and time to produce a model of this class. In landing, always maintain adequate altitude when approaching the landing area since wing loadings are normally high and they tend to sink like a brick; overshooting the field definitely won't be a problem to you!

In summing up the "Comanche Twin", it must be seen and heard on a much more intensified level than a Class C pattern ship, since you must listen for engine performance continually. Much can be gained by listening for changes in the sound of the engines. A twin engine flyer must keep cool-headed and alert or he'll lose his twin ticket! Close attention to prop condition, good plugs, and clean fuel go without saying. Also, do not hide your antenna in the fuselage when you display your model, since you might forget to string it out when you fly the next time! Keep the Excedrin and Maalox handy for the pilot - these are mandatory and should be kept in your tool box just in case they are needed!

Many Happy Landings! ●



A "75% Scale", twin engine Piper Comanche with 100% flight performance. When you step up to a twin, you have to be cool-headed and alert or you'll lose your twin ticket!

