

A 965

John D'Ottavio seems to have been flying CL Aerobatics (Stunt) forever. He has been a Nats judge and an FAI Team Trials judge. He has mentored and coached the likes of Ed Elasick, Dawn Cosmillo, Bill Simons, Windy Urtnowski, me, and many others. At 80+ years of age, John is still active as a judge, coach, and competitor. It is safe to say that Windy Urtnowski and I consider him our second father.

John's published designs include the J.D. Falcon and the Topper profile model that Ed Elasick used to win the 1961 Air Youth Championships. In his heyday, John was one of the most competitive fliers on the East Coast. Throughout the years he has designed many airplanes. The Jerseyan is perhaps his most well-known design that has not been published until now.

When Stunt fliers get together, they discuss everything from aerodynamic

theories and opinions to what they will name their next creation. These discussions are long, and they often result in designs that will be used

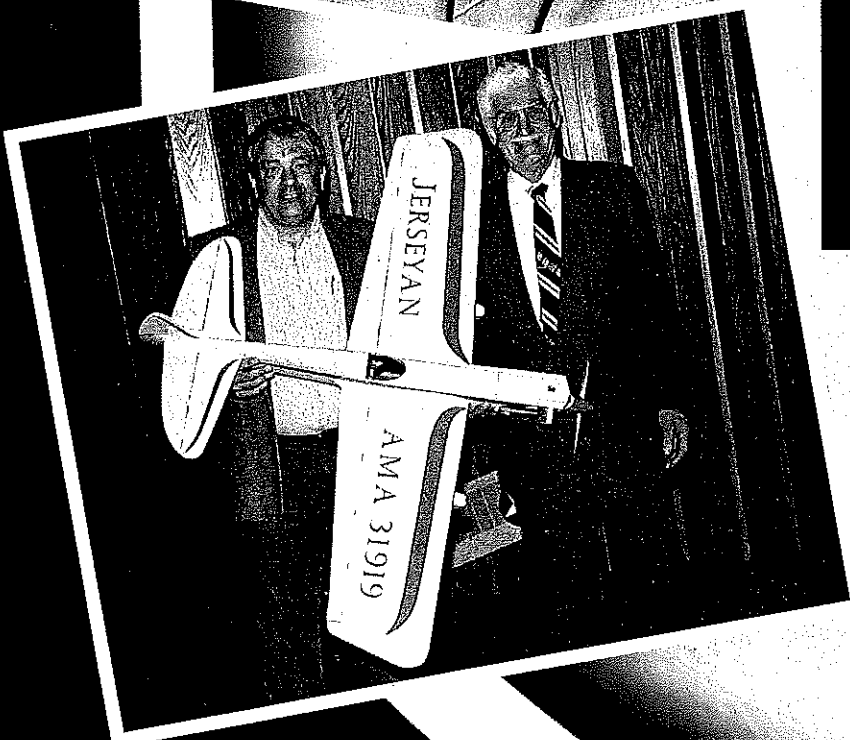
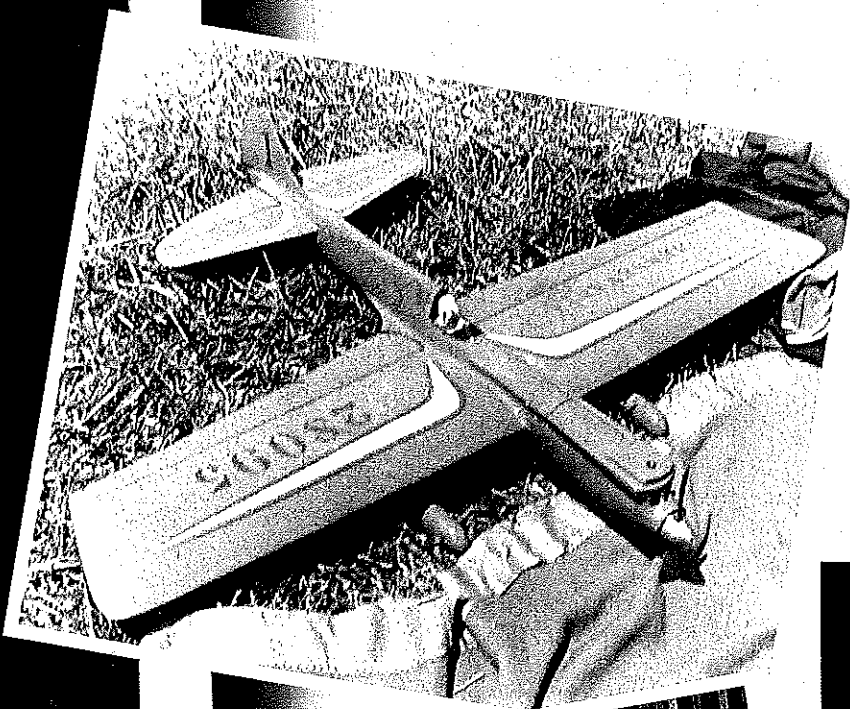
**Top:** The original Jerseyan, resplendent in its second paint job, had distinctive upright engine with helmet cowl. **John D'Ottavio photo.** **Bottom:** Tom Hampshire (L) reprised John's design a few years ago to fly in Classic Stunt, and John seems to approve of Tom's work. **Bob Hunt photo.**

the following season. Such was the case with the Jerseyan.

The discussions about it were with, among others, Art Meyers, who mentioned that he had a new design for his son Art Jr. that he would call the "New Yorker." (Artie won Senior Stunt at the 1960 Dallas, Texas, Nats with that aircraft.)

Although the dominant engine of the day was the Fox .35, the design considerations were no different in the early 1960s from what they are today. Competitors agreed and disagreed on airfoils, aspect ratios, and moments.

John D'Ottavio's new design for the 1961 season was named the "Jerseyan," obviously as an answer to the Meyers' New Yorker. The rest of the aircraft was a blend of old and new ideas that resulted in a



design by John D'Ottavio  
article by Tom Niebuhr

# Jerseyan

model that dominated the Northeast Stunt arena for the next five years!

The Jerseyan's first contest was on Long Island, New York. Art Meyers Sr. was quick to praise the new Stunter; after all, it took first place that day! The Jerseyan racked up a record that is impressive for any era. From 1961 to 1964, John recorded 23 firsts, seven seconds, and three thirds with the model!

The Jerseyan has many features that were uncommon until years later. The wing had a relatively high aspect ratio for the period, with a root chord of only 9 inches (less flaps), with an LE taper of 1 inch over a span of 54 inches. The airfoil was a blend of ideas from Red Reinhart, Larry Scarinzi, and himself. The aircraft was also greatly influenced by the Classic Thunderbird, with the upright engine and elliptical elevator TE.

However, the design's great departure from most people's thinking in the late 1950s and early 1960s was the long nose and tail moment. Most people are shocked when they learn that the Jerseyan's nose moment is 10 inches and the tail moment measures 16 inches from the flap hinge to the elevator hinge! After all, these dimensions were not "discovered" until almost 20 years after the Jerseyan came onto the scene, when people were flying .40 cu. in. and larger engines!

John built two Jerseyans, but he flew only one in competition. He sold the other to a friend, and it was crashed soon after. Those who remember the Jerseyan might have thought that more than one was flown in contests, but the original airplane was refinished two times.

The original metallic-blue paint scheme had an outline of New Jersey on the wing and ornamental rhinestones in the front of the cowl, just below the "hood." People remember the rhinestones 40 years later.

AeroGloss orange was the primary color in the second and third paint schemes. The last makeover also included a fuselage-mounted landing gear and a slightly different cowl without the "hooded" shape and cheeks that are shown on the drawing.

The plans presented here were drawn in roughly 1967 and traced from John's original pencil drawings. The intent was to publish the airplane at that time, but the article was never written. With John's permission, I built a Jerseyan in 1988 for use in Fox .35 and Classic Stunt events, and interest in the venerable design was resurrected.

Tom Hampshire, of the Garden State Circle Burners, has flown his Jerseyan at the huge Brodak Fly-In. It is an excellent-flying model and is powered by an HP .40, giving it modern performance!

The original Jerseyan was lost in 1987, but John D'Ottavio has graciously helped prepare this article for the much overdue publication of the design. The drawing has not been updated in any way; it shows the construction exactly as it was on the original aircraft.

Consider making an engine-mount crutch assembly with  $\frac{1}{2}$  balsa between the  $\frac{3}{8}$  x  $\frac{1}{2}$ -inch engine bearers. You should also consider using an adjustable leadout guide and a tip weight box. Remember that these adjustments were made during the "Classic" era, but they were executed with an X-Acto knife! Also, as with many of the larger Classic Stunters, a modern .40 engine will really make it talk.

John's Jerseyan was heavy, but since he was a master of trim, he was successful with the airplane at an unmentionable 58 ounces with a strong Fox .35 in the nose. The design's ideal weight is roughly 43 ounces.

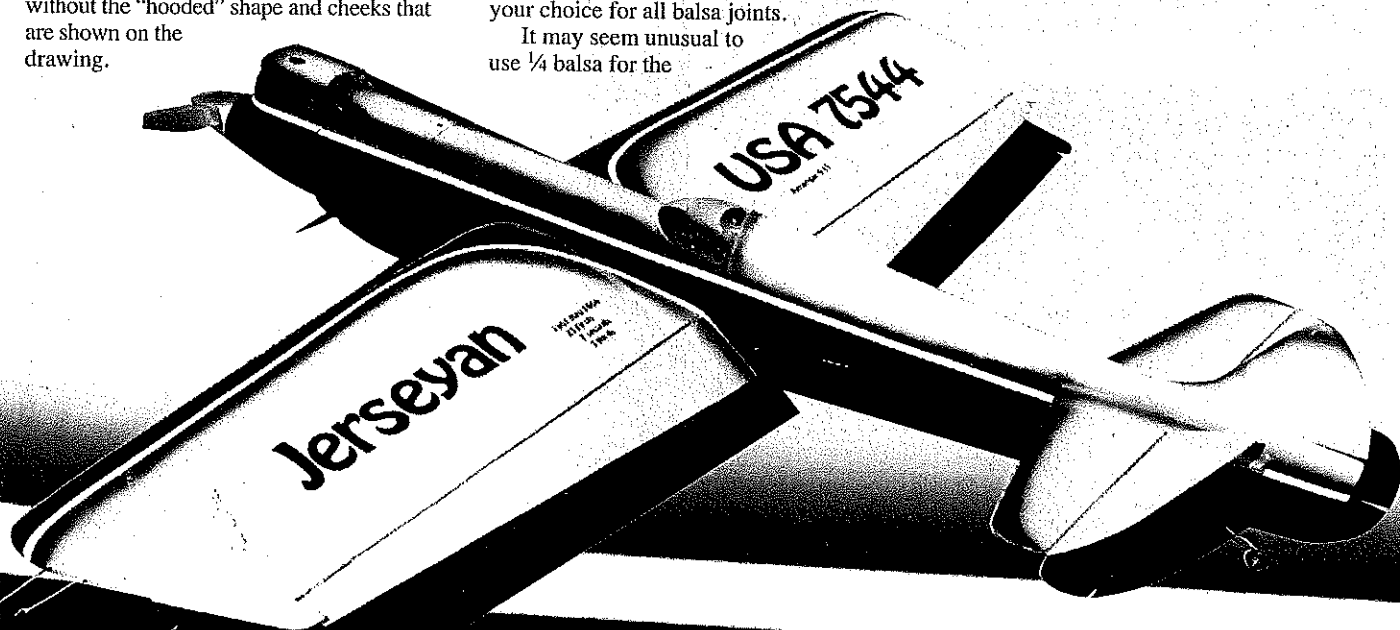
#### CONSTRUCTION

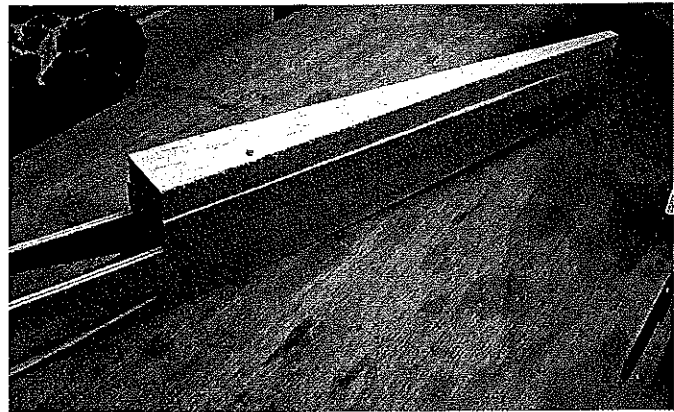
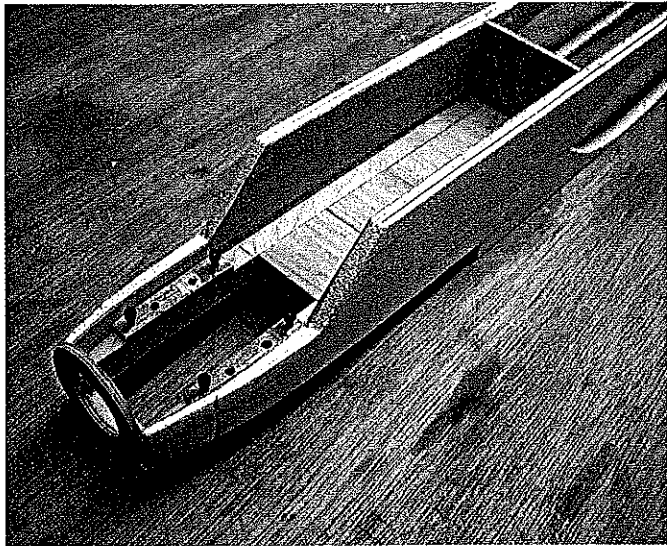
The "cheeks" on the sides of the nose were inspired by the Macchi and Supermarine Schneider Cup racers of the 1920s and early 1930s, and they make the distinctive nose's construction slightly different. For this reason we will start with the fuselage construction.

Use slow-drying epoxy for all plywood and hardwood parts, and use the glue of your choice for all balsa joints.

It may seem unusual to use  $\frac{1}{4}$  balsa for the

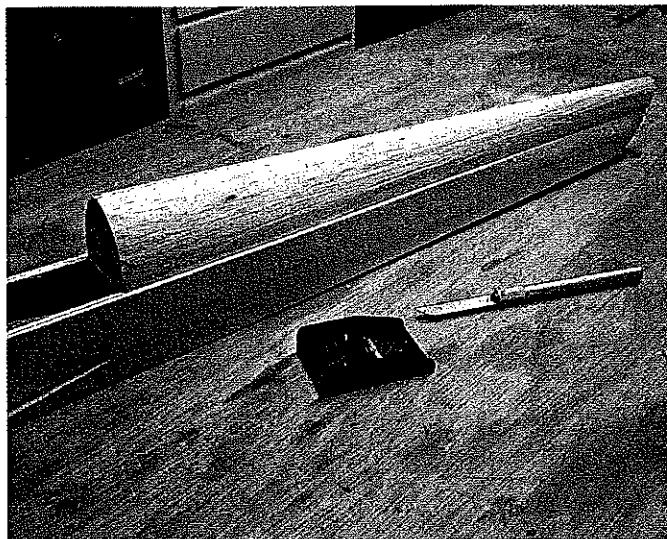
***With its long moments and helmet cowl, this CL Stunt model was a radical departure for its time***



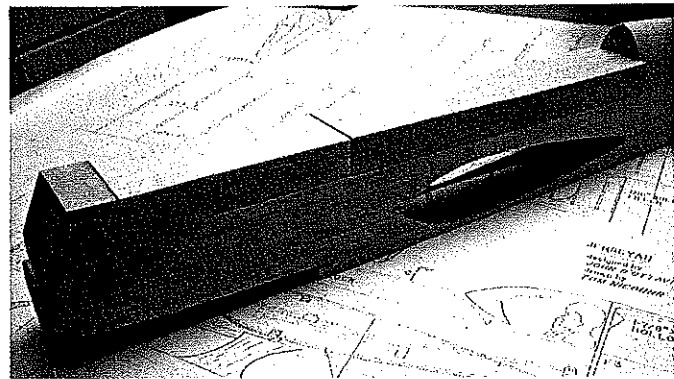


Balsa turtledeck block has been tack-glued to fuselage crutch and is ready for carving. Note step in fuselage side.

Tom Niebuhr decided to add metal engine-mount plates to his Jerseyan remake. These help ensure great motor runs.



Tom used a razor plane and X-Acto No. 26 Whittling Blade to shape top block. Fuselage sides will blend into it smoothly.



Cowling blocks are tack-glued on and are ready for shaping. This is a focal point of the model, so work carefully.

# Jerseyan

**Type:** CL Classic Stunt

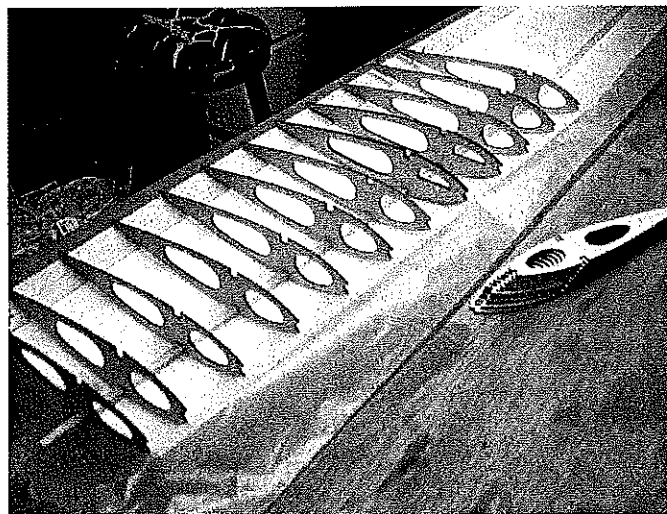
**Wingspan:** 54 inches

**Engine:** .35-.40

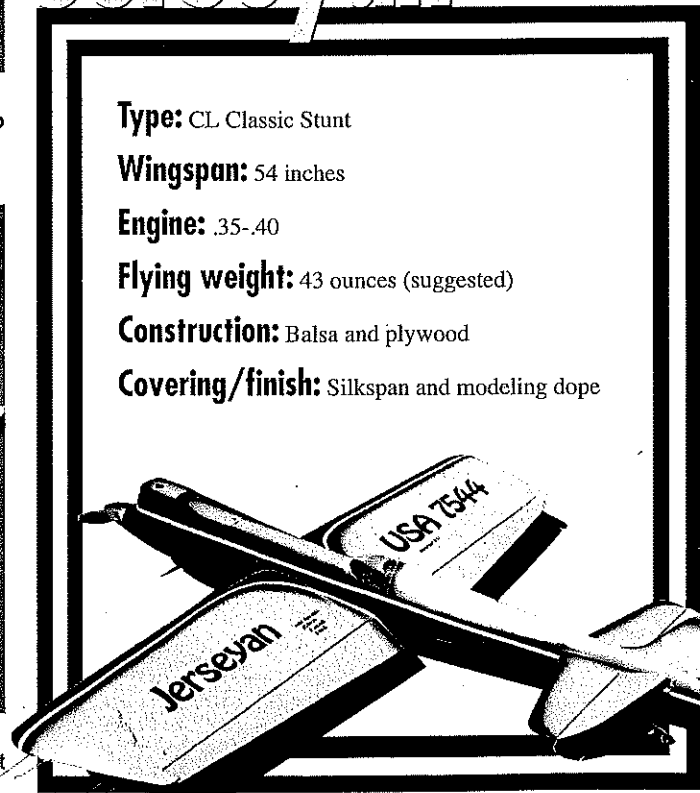
**Flying weight:** 43 ounces (suggested)

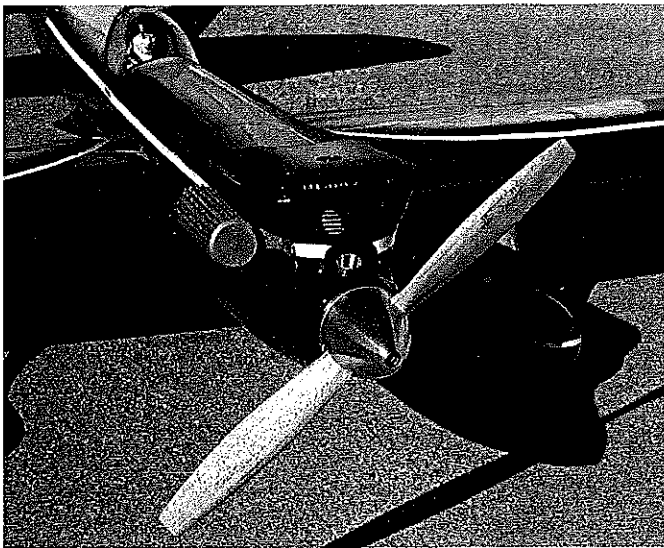
**Construction:** Balsa and plywood

**Covering/finish:** Silkspan and modeling dope

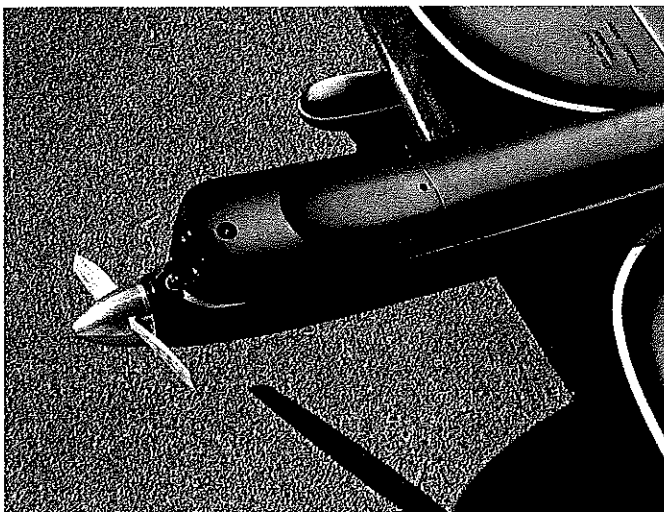


Tom prefers the Lost Foam wing-construction technique, but other fixturing methods also work. Rib sets are available.





A good look at the cowl openings shows that the venturi is easily accessible, and the balsa "cheeks" are visible.



The cheek pieces are easy to see in this view from the top. They add character to the model and should not be omitted.



Designer John D'Ottavio proudly holds Tom Niebuhr's tribute model. John is a legendary figure in the CL Stunt world.

side panels, but doing so will result in a beautifully contoured fuselage with no weight penalty. Glue the fuselage doublers to the  $\frac{1}{4}$  balsa sides, and then glue the  $\frac{3}{8} \times \frac{1}{2}$ -inch engine mounts in place.

Glue the  $\frac{1}{8}$  plywood F1 and F2 formers to the fuselage sides. Mark a centerline on your building table, and denote the centerline of the F1 and F2 plywood formers to align with the mark on the table.

Using the mark on the table as a reference, add the  $\frac{1}{8}$ -inch formers and glue the aft end of the sides together. (A good fuselage building fixture will make this job fast and easy and is well worth the money.)

Mark the centerline on the top and bottom edges of the fuselage sides. This will provide a reference when you are sanding to the final contour.

Mount the engine, and use a  $1\frac{1}{4}$ -inch-diameter spinner backplate to align the  $\frac{1}{8}$  plywood nose ring. Use  $\frac{1}{16}$ -inch shims to leave a uniform gap between the spinner and the nose ring.

Construct the cheeks by cutting 1-inch square balsa at a  $10^\circ$  angle and then tapering it lengthwise as shown on the plans.

I suggest that you tack-glue the sides of the cowl to the lower fuselage, and then glue the top cowl block to the short cowl side section. Add the front cowl block. Tack the aft end of the top block to the top of the fuselage.

Trim the blocks to the proper width, making sure that the sides of the top nose block are sanded flat and in the same plane as the fuselage sides. Mark the outline of the cheeks on the side of the top block. Round the top block to shape, taking care to leave the cheek mating surface flat. Now the cheeks can be glued to the sides of the top block over its full length.

Tack-glue the bottom nose block, the turtledeck block, and the  $\frac{1}{4}$ -inch bottom sheeting in place, and carve and sand the assembly to shape. Remember that the sides will be contoured to the guidelines that you have put on the top and bottom of the fuselage sides.

Cut through the cheeks at the aft vertical cowl split line, and remove the cowl assembly. Remove all other blocks, and hollow them out to approximately  $\frac{1}{8}$  inch wall thickness.

The cowl air exits are slots cut under each cheek. A generous-size cutout can be made for the engine head since the "hood" covers this area. The sides of the hood are located at the mating line of the fuselage sides and the cheeks.

The stabilizer and elevator consists of  $\frac{1}{2}$ -inch hinge-line spars and  $\frac{1}{4} \times \frac{1}{2}$ -inch LEs and TEs. Use  $\frac{1}{8}$ -inch shims to locate the LEs and TEs, as shown on the drawing.

The plans show a built-up center-section, but you can use  $\frac{1}{2}$  balsa for this. Leave the center-section flat in the area where it contacts the fuselage sides. This will help attain proper alignment.

Draw centerlines on the LEs, TEs, and hinge-line spar as a guide for shaping and to locate the hinges. The  $\frac{1}{2}$ -inch spars will taper to approximately  $\frac{1}{4}$  inch at the tips. Use a sanding block for final shaping.

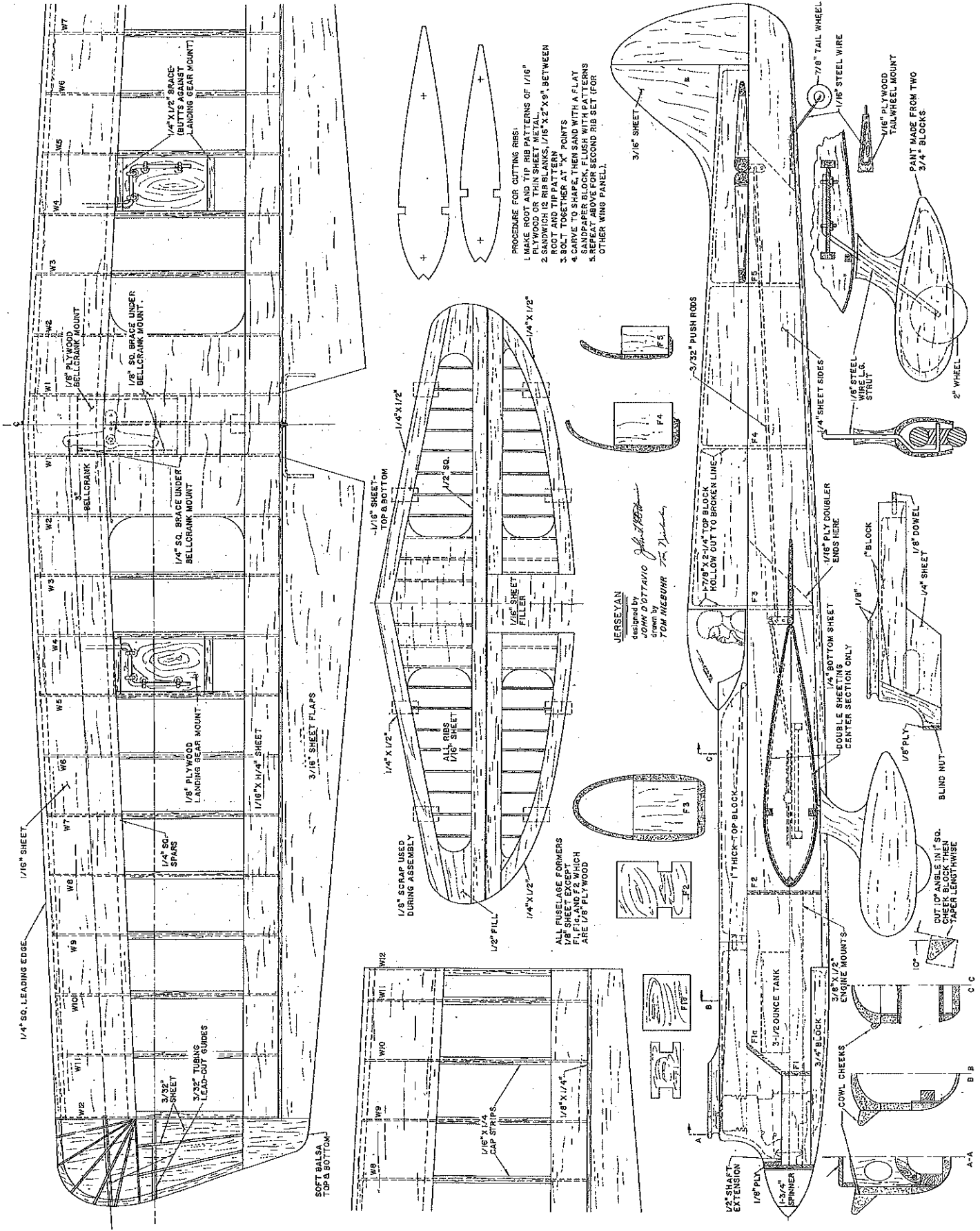
Wing construction is conventional, so I will not provide all construction details. However, I suggest that you use the rod method or the Lost Foam method of fixturing. These will almost guarantee a straight wing. Laser-cut ribs are available from Blue Sky Models, and they will allow for either construction method. Lost Foam cradles are available from Robin's View Productions.

Remember that the wing center-section is double-planked with  $\frac{1}{16}$  sheet, assuring a strong center-section.

The following tips will help you with this project.

- Use a damp sponge to lightly moisten the outside of the sheeting. This will allow it to curve naturally to the shape of the ribs. If you are using the Lost Foam method of wing construction, you can purchase a set of LE mold bucks that allow you to mold perfect-fitting LE shells.

- Cut sheets of balsa will relieve internal stresses and bow slightly. You can true these bows by trimming a minute amount of balsa from the edge of each sheet using a long straightedge and an X-Acto knife fitted with a #11 blade. Ignore the bow if it is not excessive (See the next item.)



- PROCEDURE FOR CUTTING RIBS:
1. MAKE ROOT AND TIP PATTERNS OF 1/16" Balsa.
  2. SAND/CH 12 RIB BLANKS, 1/16" X 3", BETWEEN ROOT AND TIP PATTERNS.
  3. BOLT TOGETHER AT "X" POINTS.
  4. CARVE TO SHAPE, THEN SAND WITH A FLAT SANDPAPER BLOCK, FLUSH WITH PATTERNS.
  5. REPEAT ABOVE FOR SECOND RIB SET (FOR OTHER WING PANEL).

JERSEYAN  
 MODELER  
 JOHN D. OTTAVIO  
 DRAWN BY  
 TOM MEASURE

ALL RIBSEL AGE FORMERS ARE RIBS AND F3 WHICH ARE 1/8" PLYWOOD



• When installing the LE, use thin cyanoacrylate glue at the main spar first. It is recommended that you leave a small amount of the rear of the spar exposed. This will allow for slight bowing of the sheeting and leave a small area for better bonding of the capstrips that will be installed later.

• Never pull slightly bowed sheeting to align with the spars. This will induce a warp!

**Final Assembly:** Take your time when aligning the wing and tail surfaces. Hours you spend here will be rewarded with a great flying airplane!

A number of finishing methods are available today. This subject can fill volumes, so I will leave it up to you.

Please let me know how you like your Jerseyan. *MA*

*Tom Niebuhr  
7173 FM 1377  
Blue Ridge TX 75424*

**Sources:**

Blue Sky Models  
7173 FM 1377  
Blue Ridge TX 75424  
(972) 736-3780  
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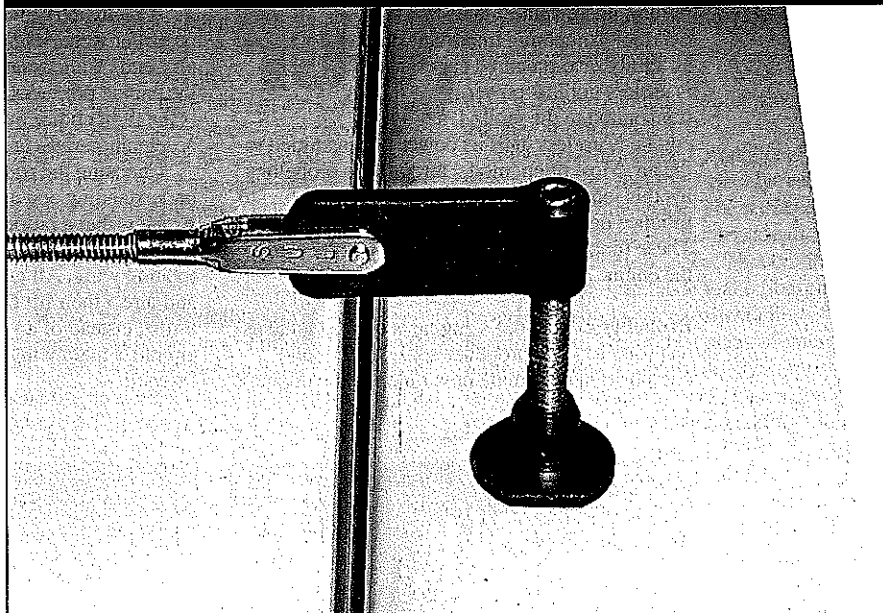
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