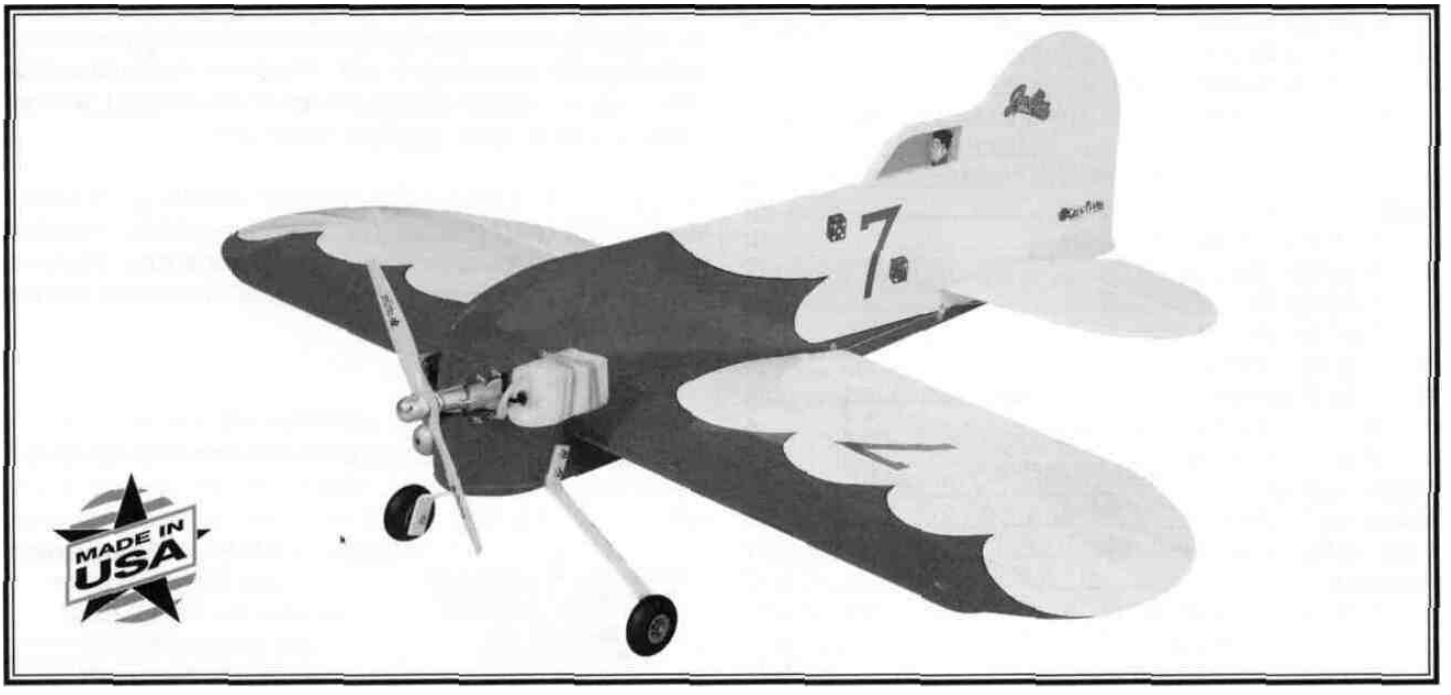
Gee Bee PROFILE

INSTRUCTION MANUAL



WARRANTY

Great Planes Model Manufacturing Co guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This warranty does not cover any component parts damaged by use or modification. **In no case shall Great Planes' liability exceed the original cost of the purchased kit.** Further, Great Planes reserves the right to change or modify this warranty without notice.

In that Great Planes has no control over the final assembly or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately in new and unused condition to the place of purchase.

While this kit has been flight tested to exceed normal use, if the plane will be used for extremely high stress flying, such as racing, the modeler is responsible for taking steps to reinforce the high stress points

READ THROUGH THIS MANUAL BEFORE STARTING CONSTRUCTION. IT CONTAINS IMPORTANT WARNINGS AND INSTRUCTIONS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.

GREAT PLANES® MODEL MANUFACTURING COMPANY

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GB40P03 V10

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FOLLOW THIS IMPORTANT SAFETY PRECAUTION TO PROTECT YOUR MODEL, YOURSELF & OTHERS.

Your **Gee Bee Profile** is not a toy, but rather a sophisticated, working model that functions very much like an actual airplane. Because of its performance, the **Gee Bee Profile,** if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage property.

To make your R/C modeling experience totally enjoyable, we recommend that you get experienced, knowledgeable help with assembly and during your first flights. You'll learn faster and avoid risking your model before you're truly ready to solo Your local hobby shop has information about flying clubs in your area whose membership includes qualified instructors.

You can also contact the national Academy of Model Aeronautics (AMA), which has more than 2,500 chartered clubs across the country. Through any one of them, instructor training programs and insured newcomer training are available.

Contact the AMA at the address or toll-free phone number below.

Academy of Model Aeronautics
5151 East Memorial Drive
Muncie, IN 47302-9252
Tele (800)435-9262
Fax (765) 741-0057
Or via the internet at: http //www modelaircraft.org

INTRODUCTION

If you have been looking for a way to put the FUN back into your Sunday flying, you have just found it The Gee Bee Profile is a nimble little profile hot-dogger that assembles in only a few hours and is easy on the budget It does not require any special building or flying skill - just a few hand tools and a little tail-dragger time. With its oversized control surfaces it turns, loops and rolls in the blink of an eye, but the thick, high lift airfoil and light wing loading allow the plane to slow way down for gentle spot landings If equipped with an engine like the OS 40 LA it's possible to be airborne in a matter of feet, zip through three rolls, loop on its own axis, then go into the "hover" mode while waiting for your buddies to get off the ground What more can we say? The Gee Bee Profile maximizes fun for minimal cost and time!

PRECAUTIONS

1 You must assemble the model according to the instructions Do not alter or modify the model, as doing so may result in an unsafe or unflyable model In a few cases the instructions may differ slightly from the photos In those instances the plans and written instructions should be considered as correct.

2. Take time to build straight, true and strong.

3. Use an R/C radio system that is in first class condition, and a correctly sized engine and components (fuel tank, wheels, etc) throughout your building process.

4. You must properly install all R/C and other components so that the model operates correctly on the ground and in the air

5 You must test the operation of the model before every flight to insure that all equipment is operating, and you must make certain that the model has remained structurally sound Be sure to check clevises or other connectors often and replace them if they show signs of wear or fatigue

NOTE: We, as the kit manufacturer, provide you with a top quality kit and great instructions but ultimately the quality of your finished model depends on how **you** build it, therefore, we cannot in any way guarantee the performance of your completed model, and no representations are expressed or implied as to the performance or safety of your completed model.

Remember: Take your time and follow directions to end up with a well-built model that is straight and true. Please inspect all parts carefully before starting to build!

YOU CAN CONTACT US...

If any parts are missing, broken or defective, or if you have any questions about building or flying this airplane, please call us at (217) 398-8970. You can also check our web site at *www.greatplanes.com* for the latest Gee Bee updates, or e-mail your questions to *productsupport@greatplanes.com.* If you are calling for replacement parts, please reference the part numbers and the kit identification number (stamped on the end **of** the carton) and have them ready when calling.

PREPARATIONS

Required Accessories

Terns *in parentheses (GPMQ4243) are suggested part numbers recognized by distributors and hobby shops and are listed for your ordering convenience* ***GPM*** *is the Great Planes brand,* ***TOP*** *is the Top Flite brand, and* ***HCA*** *is the Hobbico" brand.*

- D 4 Channel radio with 5 servos and a Y-harness
- D 35-46 2-stroke or 40 - 52 4-stroke engine
- D 6oz Fuel tank (GPMQ4102)
- D (2) 2-1/2" Wheels (GPMQ4223)
- D 1 "Tail wheel (GPMQ4241)
- D (2) 3/32" Wheel collars (GPMQ4302)
- D 12" Medium fuel tubing (GPMQ4131)
- D (2) Rolls covering film
- D 1/4" Foam Rubber (HCAQ1000)

Building Supplies

These are the building supplies that are required *We recommend* ***Great Planes Pro****" CA and Epoxy glue*

- D 1 oz ThinCA(GPMR6002)
- D 1 oz Medium CA (GPMR6008)
- D 6-Minute Pro Epoxy (GPMR6045)
- D 30-Minute Pro Epoxy (GPMR6047)
- D Balsa filler (HCAR3401)
- D Masking Tape (TOPR8018)
- D Plan Protector (GPMR6167)
- D Isopropyl Rubbing Alcohol (70%)

Tools

- D Sanding block and sandpaper (coarse, medium, tine)
- D Hobby knife (HCAR0105)
- D #11 blades (HCAR0311)
- D Single edge razor blades (HCAR0212)
- D Razor Saw
- D Razor Plane
- D Electric drill
- D Drill bits - 1/16", 5/64", 7/64", 1/8", 3/32",3/16"(HCAR0699)
- D Small Phillips and flat blade **screwdrivers**
- D Pliers with wire cutter
- D Sealing Iron (COVR2700)
- D Heat Gun (TOPR2000)
- D T-Pins (HCAR5150)
- D Straightedge with scale (HCAR0475)
- D Cutting Mat (HCAR0456)
- D Builders Triangle (HCAR0480)

EXPERT TIP

On our workbench, we have three 11" **Great Planes Easy-Touch Bar Sanders,** equipped with 80, 150 and 220-grit sandpaper This setup is all that is required for almost any sanding task We also keep some 320-grit wet-or-dry sandpaper handy for finish sanding before covering

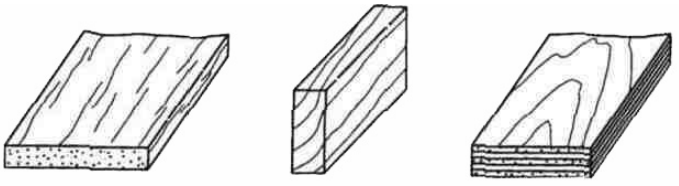
Great Planes **Easy-Touch Bar Sanders** are made from lightweight extruded aluminum and can be found at most hobby shops They are available in five sizes - 5-1/2" (GPMR6169) for those tight, hard-to-reach spots; 11" (GPMR6170) for most general purpose sanding, and 22" (GPMR6172), 33" (GPMR6174) and 44" (GPMR6176) for long surfaces such as wing leading edges The **Easy-Touch Adhesive-Backed Sandpaper** comes in 2" x 12' rolls of 80-gnt (GPMR6180), 150-grit (GPMR6183), 180-grit (GPMR6184) and 220-grit (GPMR6185) and an assortment of 5-1/2" long strips (GPMR6189) for the short bar sander The adhesive-backed sandpaper is easy to apply and remove from your sanding bar when it's time for replacement

This setup is all that is required for almost any sanding task Custom sanding blocks can be made from balsa or hardwood blocks and dowels for sanding difficult to reach spots.

Common Abbreviations

Elev = Elevator	Fuse = Fuselage
LE = Leading Edge (front)	LG = Landing Gear
Ply = Plywood	Stab = Stabilizer
TE = Trailing Edge (rear)	" = Inches

Types of Wood



Balsa **Basswood** **Plywood**

Important Building Notes

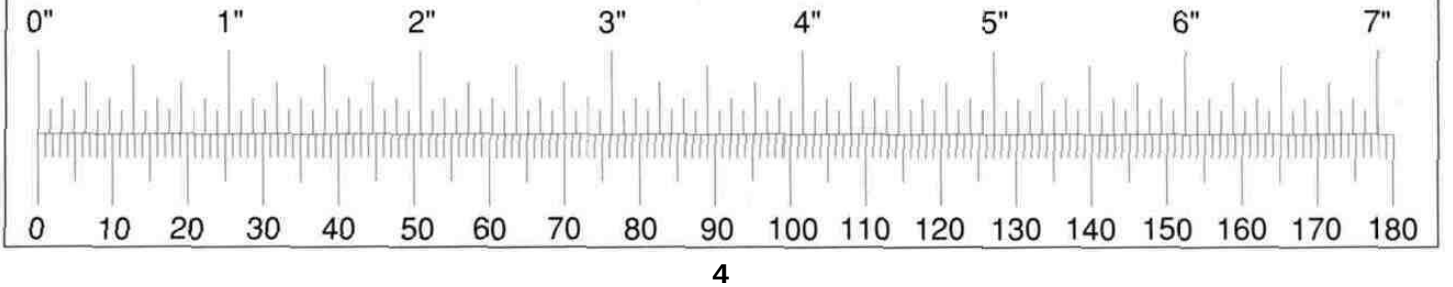
1 Unroll the plan sheet, then re-roll the plan inside-out to make it lie flat.

2. Sort through the sticks and sheets grouping them by size Masking tape can be used to bundle matching sheets and sticks Using a felt tip or ball point pen lightly write the part **name** or **size** on each piece or bundle Refer to the parts list and plans for sizes and quantities Use the die-cut patterns shown on page 5 to identify the die cut parts and mark them **before** removing them from the sheet Save all scraps If any of the die-cut parts are difficult to remove, do not force them! Instead, cut around the parts with a hobby knife or lightly sand the back of the sheet After removing the die cut parts use your sanding block to **lightly** sand the edges to remove any die-cutting irregularities

3 Work on a flat surface Cover the plan with waxed paper or Great Planes Plan Protector material to prevent glue from sticking to it.

Metric Conversions

1/64"	=	.4 mm	1/4"	=	6.4 mm	6"	=	152.4 mm
1/32"	=	.8 mm	3/8"	=	9.5 mm	12"	=	304.8 mm
1/16"	=	1.6 mm	1/2"	=	12.7 mm	18"	=	457.2 mm
3/32"	=	2.4 mm	5/8"	=	15.9 mm	21"	=	533.4 mm
1/8"	=	3.2 mm	3/4"	=	19.0 mm	24"	=	609.6 mm
5/32"	=	4.0 mm	1"	=	25.4 mm	30"	=	762.0 mm
3/16"	=	4.8 mm	2"	=	50.8 mm	36"	=	914.4 mm
			3"	=	76.2 mm			



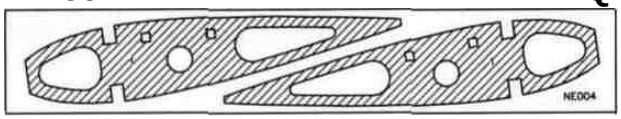
4. When instructed to **test fit** parts, this means **DON'T USE GLUE** until you are satisfied that everything fits properly - **THEN** glue the parts together if instructed to do so

5. Whenever the instructions tell you to **glue** pieces together, CA or epoxy may be used When a **specific** type of glue is required, the instructions will state the type of glue that is **highly recommended.** When 30-mmute epoxy is **specified,** it is highly recommended that you use only 30-minute (or slower) epoxy because you will need either the working time and/or the additional strength

6 The easiest way to cut balsa sticks is with a single edge razor blade or razor saw Position the stick over the plan, mark its size, then cut the part on a piece of scrap lumber A modeling miter box works well for cutting square corners and 45° gussets.

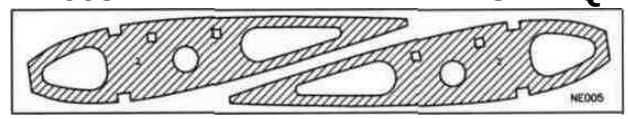
DIE-CUT PATTERNS

NE004 **2 REQ.**



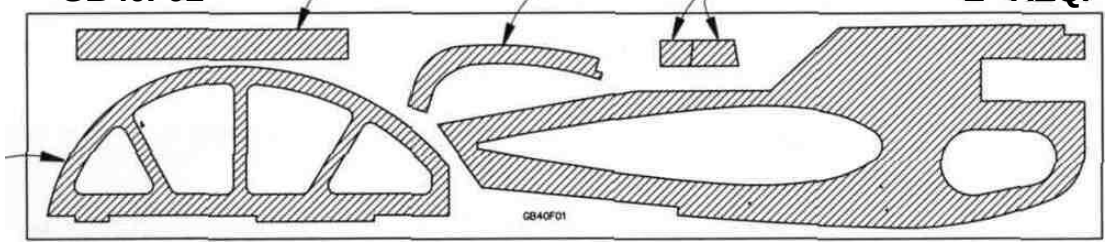
3/32" X 3" X 18" BALSA

NE005 **5 REQ.**



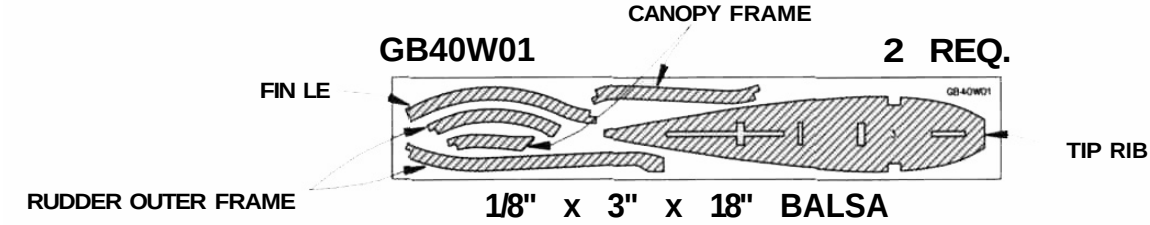
3/32" X 3" X 18" BALSA

GB40F01 **2 REQ.**



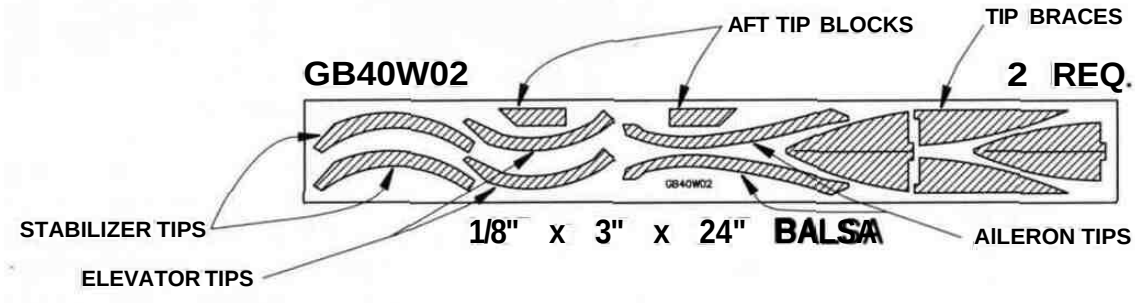
1/8" x 6-5/8" x 31-3/4" PLY

GB40W01 **2 REQ.**



1/8" x 3" x 18" BALSA

GB40W02 **2 REQ.**

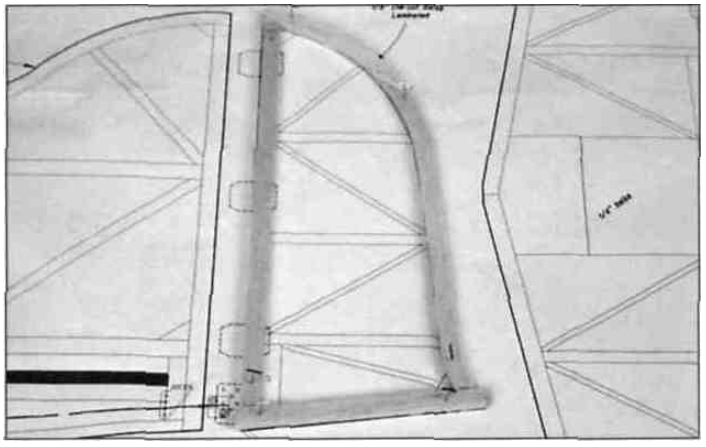


1/8" x 3" x 24" BALSA

BUILD THE TAIL SURFACES

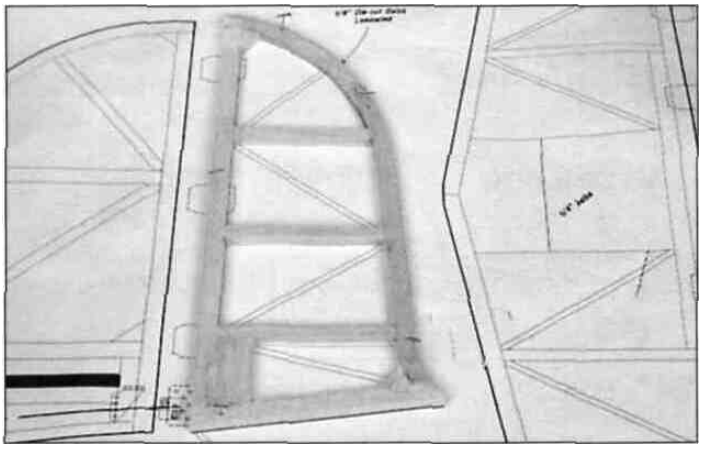
Build the Rudder

D 1. Glue together the pairs of die-cut 1/8" balsa rudder TE'S to make 1/4" thick parts.

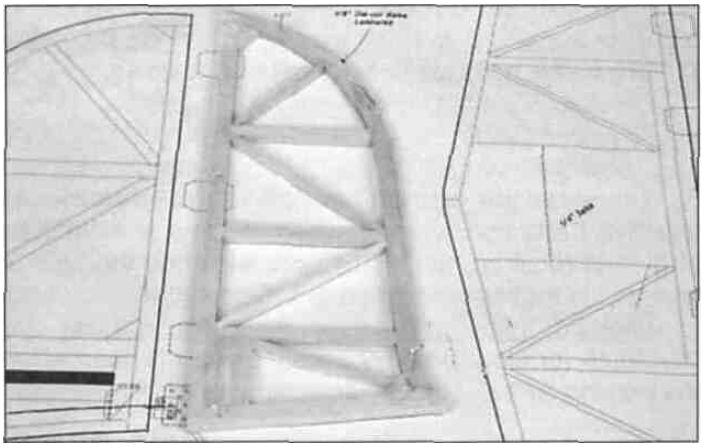


D 2. With the waxed paper or Plan Protector over the plan, pin the rudder TE'S in position over the plan. Cut the **rudder outer frame** from 1/4" x 3/8" x 30" balsa sticks. Glue the outer frame and rudder frame together and pin it in position over the plan. Use the plan or a straightedge as a guide to make sure the **rudder LE** is straight as you glue it in position.

D 3. From the 1/4" x 3/8" x 30" balsa stick, cut and glue the two **gussets** and the **control horn base** to the rudder frame.



D 4. From the 1/4" x 1/4" x 30" balsa stick, cut and glue the **rudder ribs** to the rudder frame.



D 5. From a 1/8" x 1/4" x 30" balsa stick, cut and glue the **diagonal braces** to the rudder frame.

D 6. Remove the rudder from your building board. Inspect all the glue joints and add CA to any joints that don't look strong. Sand the joints flush and the entire top and bottom surface of the rudder flat and even. Be careful that you don't sand any area too thin.

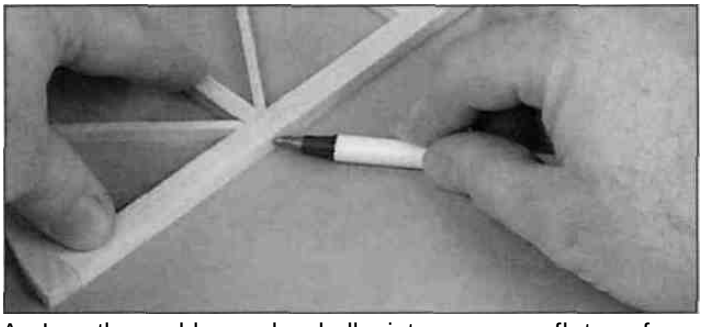
Hinge the Rudder

D 1. Place the rudder over the plan and lightly mark the **hinge locations** on the LE.

D 2. Mark the centerline **on the rudder's LE using the following centerline method.**

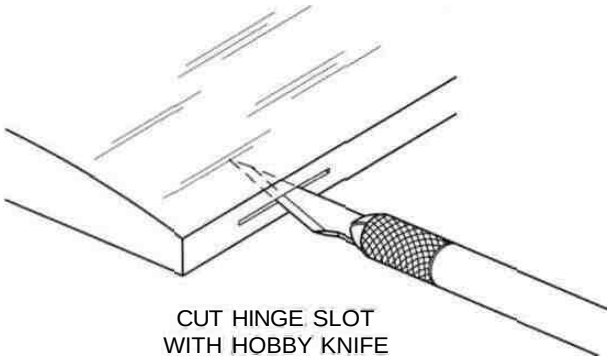
HOW TO MARK A CENTERLINE

It's important that the hinges are centered and parallel to the part you are hinging. The best way to start is by accurately marking the hinge centerline.



A. Lay the rudder and a ballpoint pen on a flat surface. **Mark a** "test line" on the LE of the rudder.

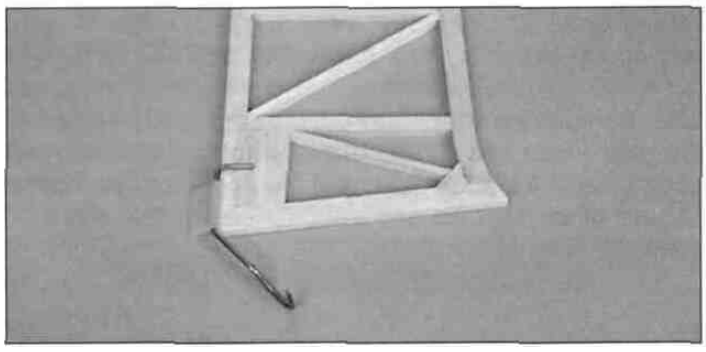
B. Flip the rudder over and mark another line in the same location as the first. If you see only one line, then it is on center. Proceed and mark the centerline at each hinge location. If you see two lines, use playing cards or business cards to adjust the height of the pen until you can mark the centerline.



CUT HINGE SLOT
WITH HOBBY KNIFE
AND #11 BLADE

D 3. Cut the hinge slots in the rudder using a #11 blade. Begin by **carefully** cutting a very shallow slit at the hinge location to accurately establish the hinge slot. Make three or four more cuts, going a little deeper each time. As you cut, slide the knife from side to side until the slot has reached the proper depth and width for the hinge.

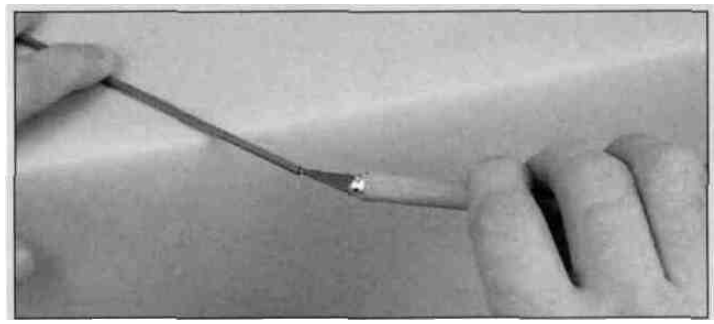
D 4. Cut the 3/4" x 1" hinges for the rudder from the supplied 2" x 9" **hinge material.** Use the hinge drawing on the plan as a guide. Test fit the hinges into the rudder. **Do not** glue the hinges at this time.



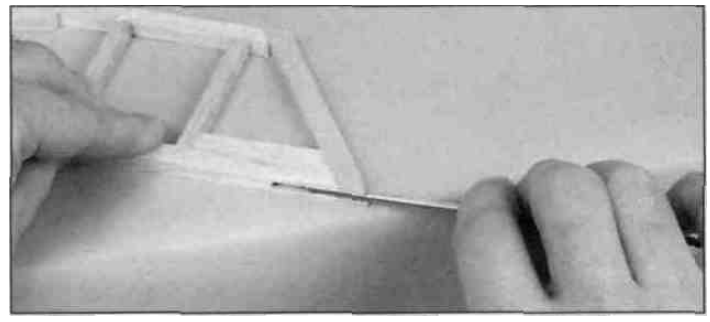
D 5. Position the rudder over the plan and align the **tailgear assembly** over the rudder. Mark the tailgear "arm" location on the LE of the rudder. Drill a 7/64" hole, 3/4" deep at the mark.

D 6. Cut a groove from the above hole to the bottom of the rudder that will allow the nylon tailgear bearing to fit flush with the LE of the rudder (see the following expert tip). Do not glue the tailgear bearing in position at this time.

HOW TO CUT A GROOVE



A. Use a hobby knife to sharpen the inside of a piece of 1/8" brass tube. Roll the tube as you carve the end.

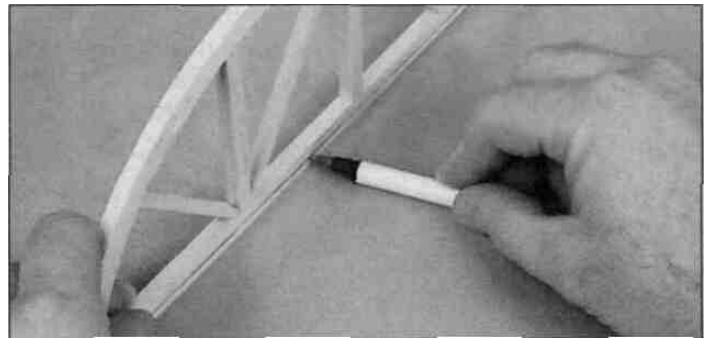


B. Use the sharpened tube to carefully gouge the leading edge. You'll have to make several passes to make the recess deep enough for the tailgear bearing.

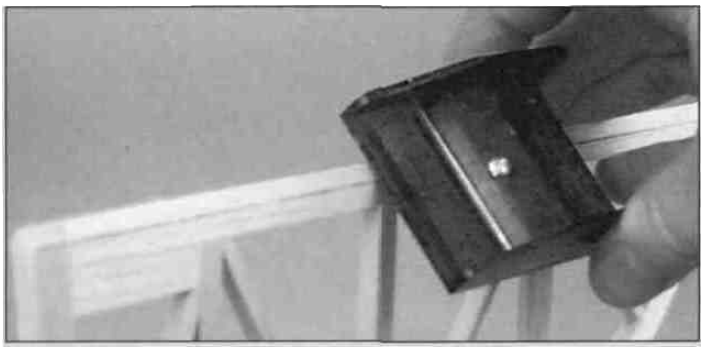
Finish the Rudder

D 1. Refer to the Expert Tip that follows and shape the LE of the rudder to a "V" shape as shown on the plan.

HOW TO BEVEL THE LEADING EDGE



A. Place the leading edge of the rudder on your work surface and use your ballpoint pen to mark a "bevel to" line on both sides about 1/8" high.



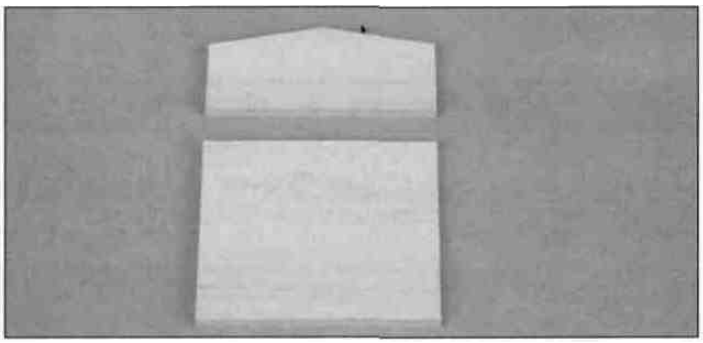
B. Using the bevel to lines and the centerline as a guide, make the "V" on the leading edge of the rudder with a razor plane or your bar sander.

D 2. Draw a centerline on the TE and tip of the rudder. Sand a radius on the edges as shown on the plan using the centerline as a guide to keep the radius symmetrical.

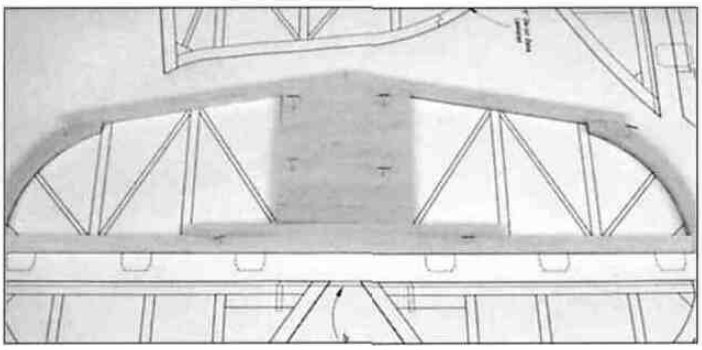
Build the Stabilizer

D 1. Pin the stabilizer and the elevator portion of the plan to your building board. Cover this portion with waxed paper or Plan Protector.

D 2. Glue the pairs of die-cut 1/8" balsa **stabilizer tips** together to make 1/4" thick parts.

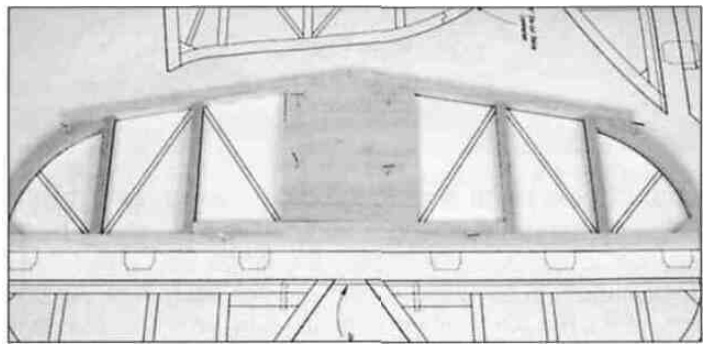


D 3. Make the stabilizer LE joiner and stabilizer center from a 1/4" x 3" x 7-1/2" balsa sheet. Use the plan for the correct outline of the parts.

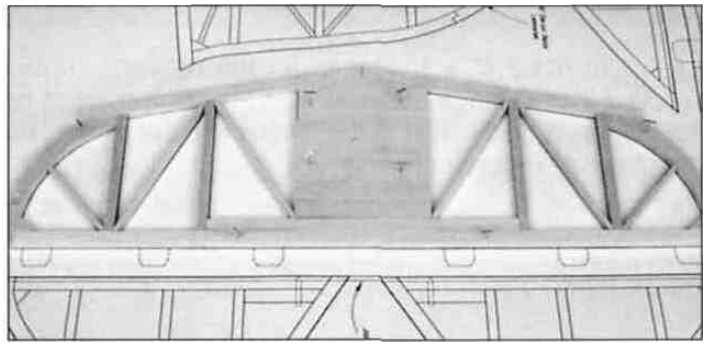


D 4. Pin the stab LE joiner, stab center and stab tips in position over the plan. Cut the **stab outer frame** from 1/4" x 3/8" x 30" balsa sticks. Glue the stab outer frame, stab LE joiner, stab center and stab tips together. Use the plan or a straightedge as a guide to make sure the **stab TE** is **straight** as you glue it in position.

D 5. From a 1/4" x 3/8" x 30" balsa stick, cut and glue the two **gussets** to the stab frame.



D 6. From the 1/4" x 1/4" x 30" balsa stick, cut and glue the **stab ribs** to the stab frame.



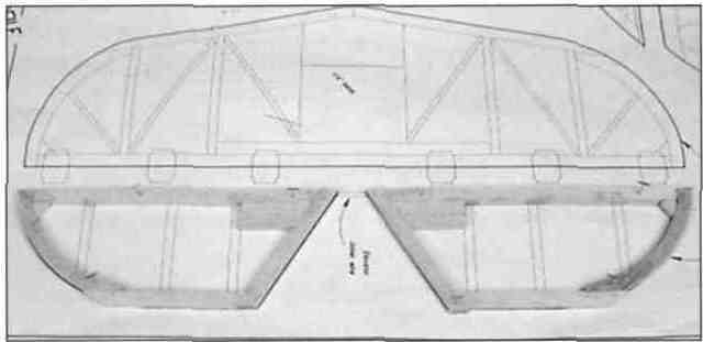
D 7. From a 1/8" x 1/4" x 30" balsa stick, cut and glue the **diagonal braces** to the stab frame.

D 8. Remove the stab from your building board. Inspect all the glue joints and add CA to any joints that don't look strong. Sand the joints flush and the entire top and bottom surface of the stab flat and even. Be careful that you don't sand any area too thin.

Build the Elevators

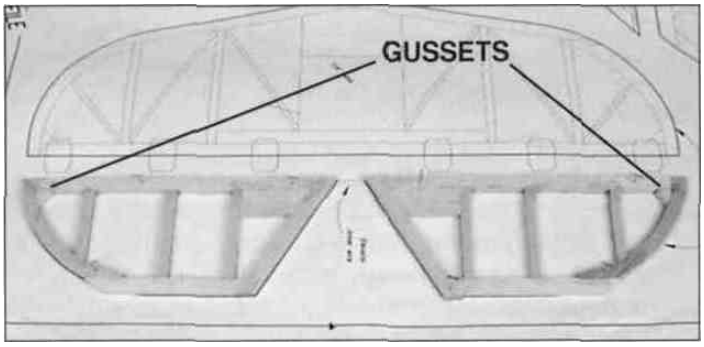
D 1. Pin the elevator plan to your building board and cover it with waxed paper or Plan Protector.

D 2. Glue the pairs of die-cut 1/8" balsa **elevator tips** together to make 1/4" thick parts.



D 3. Pin the elevator tips in position over the plan. Cut the **elevator outer frame** from 1/4" x 3/8" x 30" balsa sticks. Glue the elevator outer frame and tips together. Make sure each **elevator LE** is **straight** as you glue it in position. Glue the **elevator joiner wire doublers** to the **elevator LE'S.**

D 4. From a 1/4" x 3/8" x 30" balsa stick, cut and glue the two **gussets** to the elevator frame and tips.



D 5. From the 1/4" x 1/4" x 30" balsa stick, cut and glue the **elevator ribs** to the elevator frame.

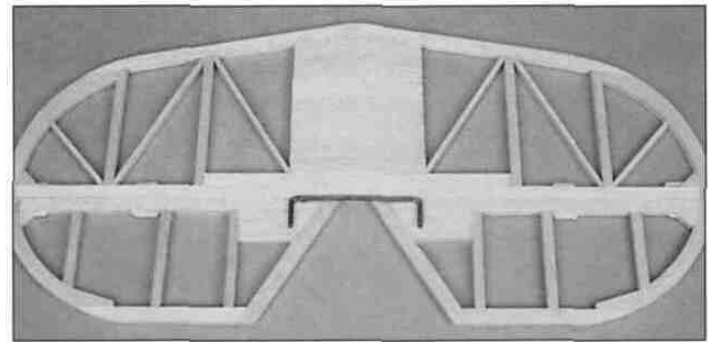
D 6. Remove the elevators from your building board. Inspect all the glue joints and add CA to any joints that don't look strong. Sand the joints flush and the entire top and bottom surface of the stab flat and even. Be careful that you don't sand any area too thin.

Hinge the Stab and Elevator

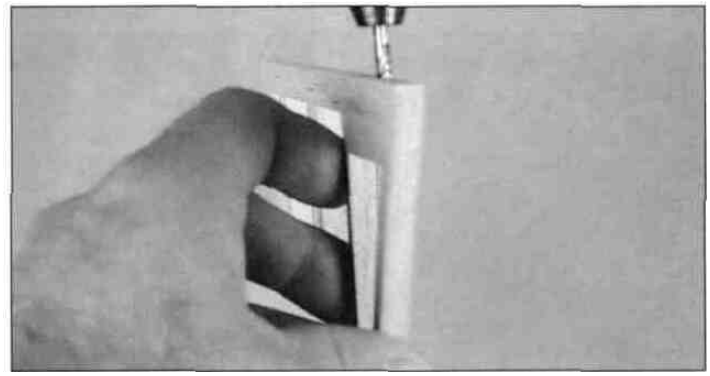
D 1. Place the stab and elevator over their locations on the plan and lightly mark the **hinge locations** on the TE of the stab and LE of the elevator.

D 2. Make six 3/4" x 1" elevator hinges from the remaining 2" x 9" hinge material.

D 3. Mark the centerline of the hinges on the stab's TE and elevator's LE. Cut the hinge slots and **without using glue,** test fit the elevator on the stab.



D 4. Position the stab and elevators over the plan and mark the location of the **elevator joiner** on the elevators.



D 5. Drill a 3/32" pilot hole into the elevator LE, on the centerline, at the torque rod marks. As you drill the holes, keep the drill aligned with the top and bottom surfaces of the elevator. Enlarge the holes with a 1/8" drill bit.

D 6. Cut a 1/8" groove in the leading edge of both elevators to recess the joiner wire. **Do not** glue the joiner wire in position at this time.

D 7. Remove the elevators from the stab. Mark the "bevel to" lines and sand the LE of the elevators to a "V" as shown on the plan.

D 8. Draw a centerline on the LE of the stab and the TE of the elevators. Sand a radius on the LE of the stab and the TE of the elevators, referring to the cross-section on the plans as a guide.

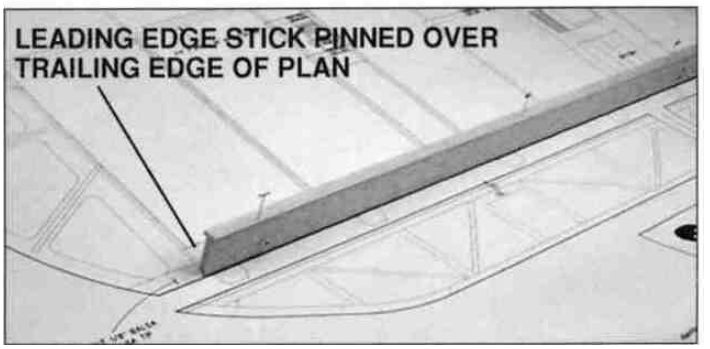
This completes the stab and elevators. Put them aside for now and let's move on to ***Building the Wing.***

BUILD THE WING

Assemble the Ribs and Spars

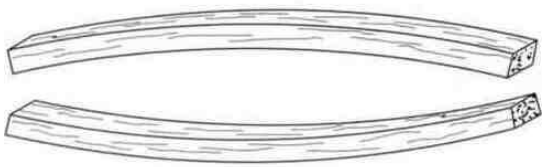
NOTE: The wing is built as one piece, upside-down, over the plan.

D 1. Pin the wing plan to the building board. Cover the plan with waxed paper or Plan Protector.

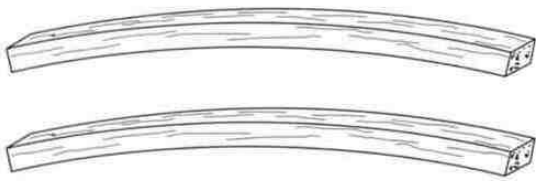


D 2. Temporarily pin the 1/4" x 1" x 36" balsa stick over the TE of the wing plan to create a temporary **trailing edge fixture.** This fixture stick is used later to make the wing **leading edge.** Cover the fixture with waxed paper or Plan Protector. Pin the 1/8" x 3/8" x 36" balsa **trailing edge** to the top edge.

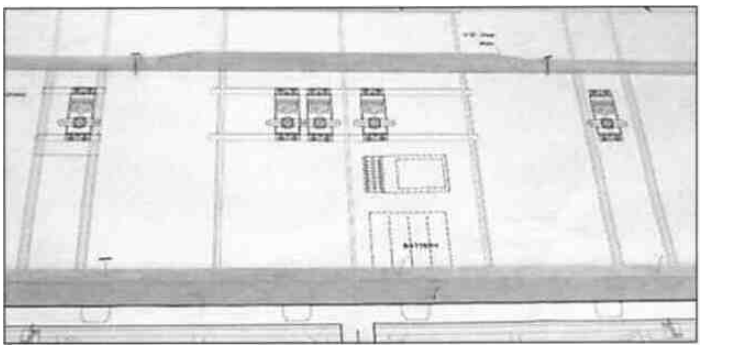
TWO WARPED SPARS INSTALLED THIS WAY WILL RESULT IN A STRAIGHT WING



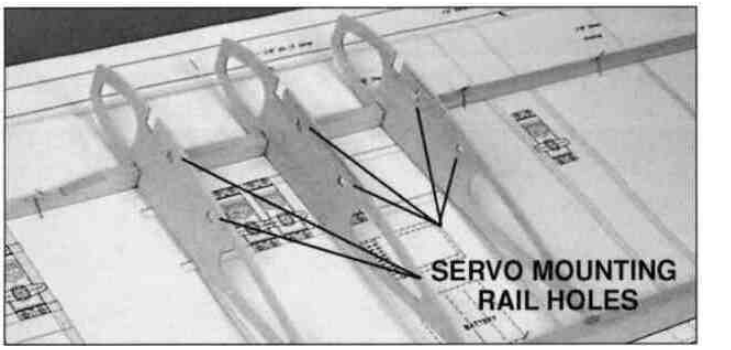
TWO WARPED SPARS INSTALLED THIS WAY WILL RESULT IN A WARPED WING



D 3. Match the 1/4" x 3/8" x 36" balsa wing spars so any warps will counteract each other.

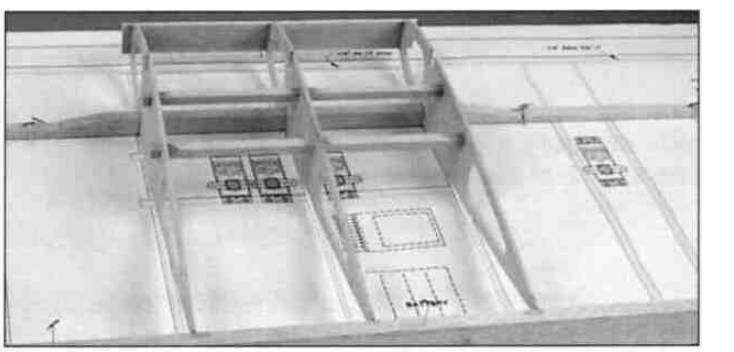


D 4. Cut the 1/4" x 3/8" x 24" balsa **spar doubler** in half to make two 12" sticks. Bevel both ends of spar doublers and glue them to the wing spars where shown on the plan. Pin the bottom spar assembly into position over the plan.

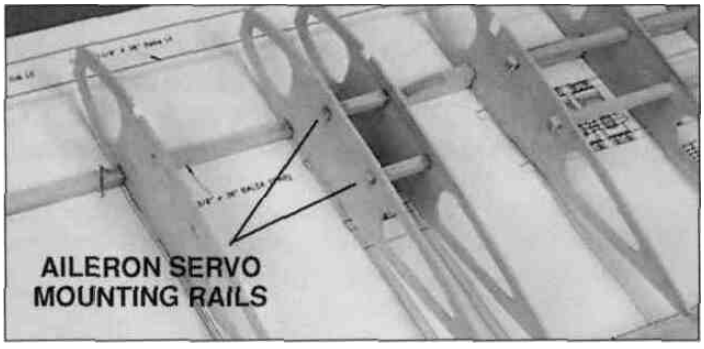


D 5. Glue the three die-cut 3/32" balsa #1 **ribs** onto the bottom spar and trailing edge, perpendicular to the building board. **Important:** Make sure that the 1/4" square holes for the servo mounting rails are **facing up** as shown and that the ribs are centered on the forward edge of the trailing edge.

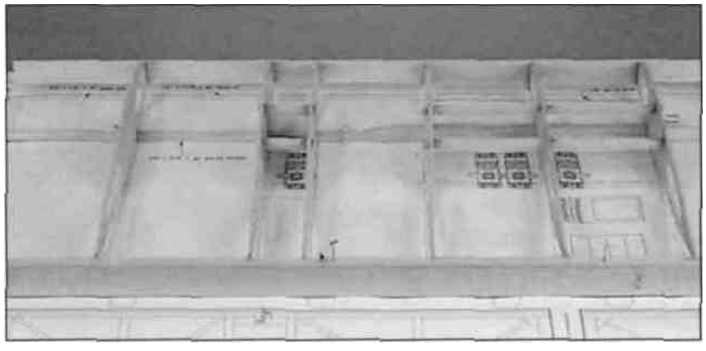
D 6. Glue the die-cut 1/8" ply **leading edge doubler,** centered, on the front of the #1 ribs.



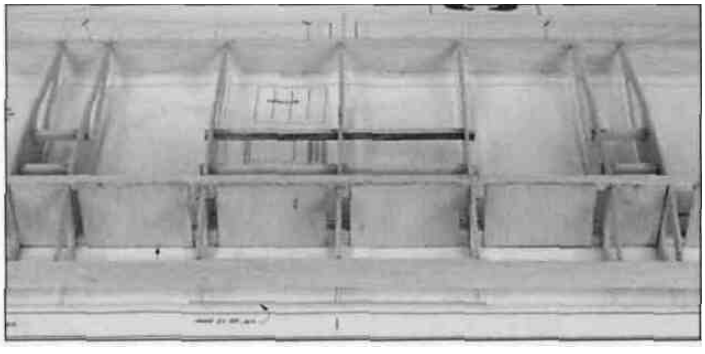
D 7. Cut two 7-7/8" long **servo mounting rails** from the 1/4" x 1/4" x 15" hardwood stick. Save the left-over pieces for later use. Slide a servo mounting rail through the front and back square holes as shown and glue them securely into position.



D 8. Glue all of the die-cut 3/32" balsa #2 **and** #3 ribs onto the bottom spar and trailing edge. Once again make sure all of the 1/4" square holes are facing up. From the remaining 1/4" x 1/4" hardwood stick, cut and glue four 1/4" square hardwood aileron servo mounting rails into the square holes in the #2 ribs.

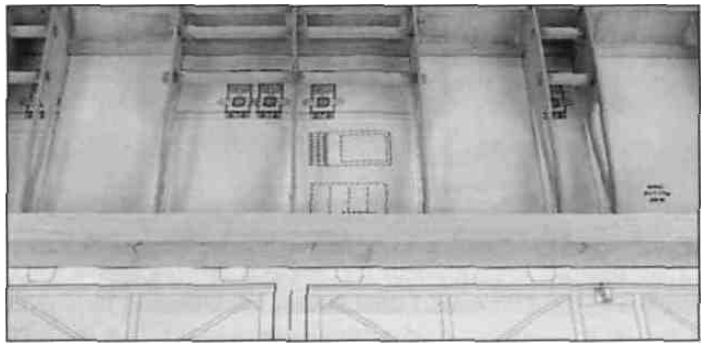


D 9. Center the 3/32" x 7/8" x 36" balsa **sub-leading edge** on the forward edge of the *#2* and #3 ribs and to the leading edge doubler. Glue the sub-leading edge to the ribs and doubler. Insert and glue the **top wing spar** into notches in the ribs.



D 10. From a 1/16" x 3" x 30" balsa sheet, cut and glue **shear webs,** perpendicular to the forward edge of the wing spars. The shear webs must be glued **securely** to the wing spars.

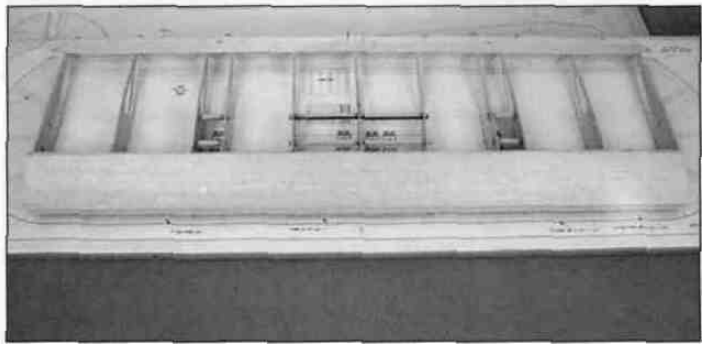
Sheet the Wing



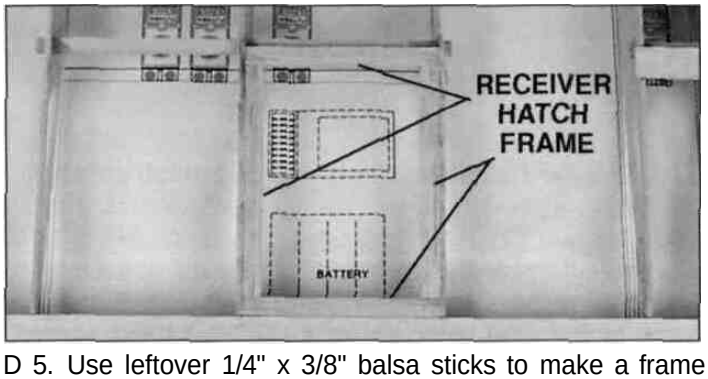
D 1. Glue the 1/16" x 7/8" x 36" balsa **trailing edge sheeting** to the ribs and to the 1/8" x 3/8" balsa trailing edge.

D 2. Use a long sanding block to sand the sub-leading edge flush with the tops of all wing ribs.

D 3. Test fit the 1/16" x 3" x 36" **LE wing sheet** to the wing. The aft edge of the wing sheeting should cover the forward half of the wing spar. Remove any pins that are holding the wing to the building board in front of the wing spar. You may need to place weights on the wing to keep the wing spars flat against the building board.



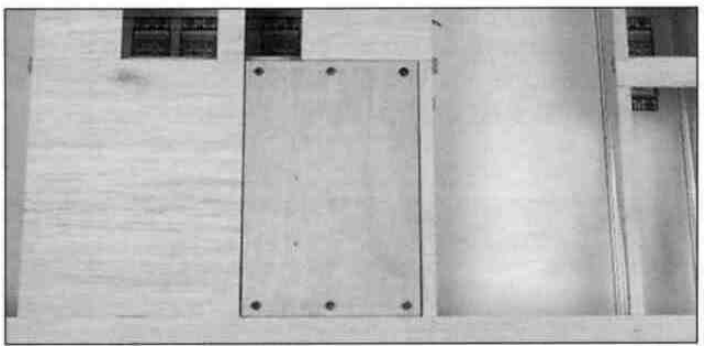
D 4. Apply medium CA to the top of the sub-leading edge and the ribs from the wing spar forward. Working quickly, center the LE wing sheet on the wing spar and press it down against the ribs and the sub-leading edge. Use thin CA to glue the wing sheet to the wing spar.



D 5. Use leftover 1/4" x 3/8" balsa sticks to make a frame for the receiver hatch. The frame should be glued flush with the top of the wing ribs.

D 6. Temporarily position the servos on the servo rails. From a 1/16" x 3" x 30" balsa sheet, cut sheeting to fit over the center section and aileron bays. Use the plan to determine the hatch location.

D 7. From the 1/16" x 1/4" x 30" balsa sticks, cut and glue the **cap strips** to the top of the wing ribs.

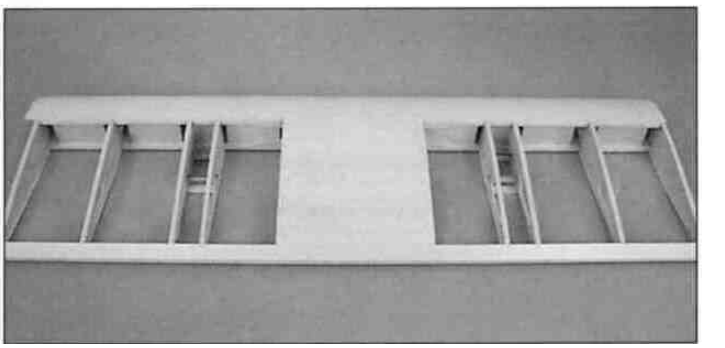


D 8. Trim the 1/16" x 3-3/8" x 5" plywood **hatch cover** to fit the hatch frame as shown. Mark the location for the six hatch screws. Place the hatch in position and drill a **1/16" pilot hole** through the hatch and hatch frame at each mark. Countersink the six screw holes in the hatch. Test fit the hatch to the wing using six #2 **x 3/8" flat head screws.** Remove the hatch when you are satisfied with the fit. Apply a couple of drops of thin CA to each screw hole in the hatch frame to harden the balsa.

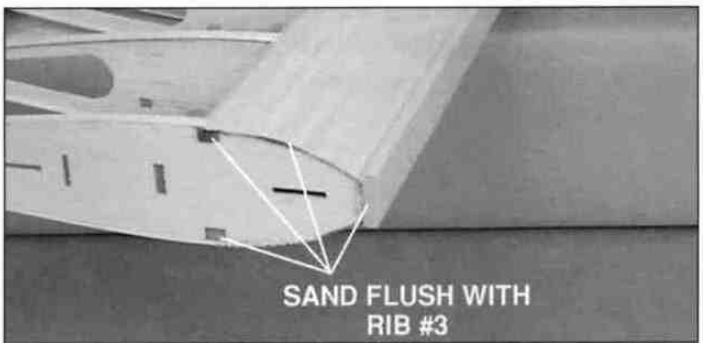
D 9. Remove the wing from the building board and turn it over. Sand the sub-leading edge so that it's flush with the tops of all ribs. Place the wing back on the **trailing edge fixture.**

D 10. Glue the second 1/16" x 3" x 36" leading edge sheet to the ribs, beveled sub-leading edge and spar.

D 11. Glue the second 1/16" x 7/8" x 36" balsa trailing edge sheet to the ribs and trailing edge.



D 12. Cut, fit and glue the 1/16" x 3" balsa wing center sheeting and 1/16" x 1/4" balsa cap strips to the wing ribs.

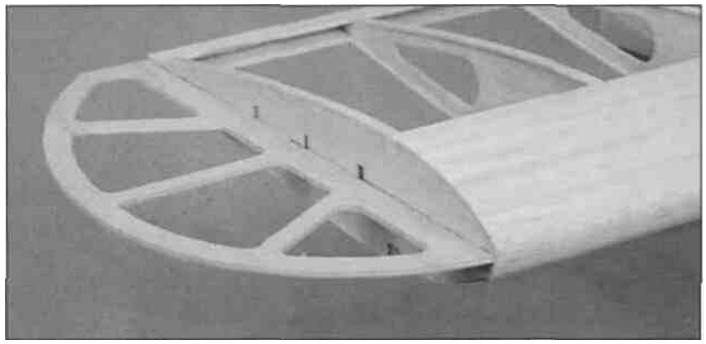


D 13. Sand the top and bottom leading edge sheeting until it is flush with the front face of the sub-leading edge. Glue the 1/4" x 1" x 36" balsa leading edge to the sub-leading edge. *You used this piece as a trailing edge fixture earlier in the wing construction.*

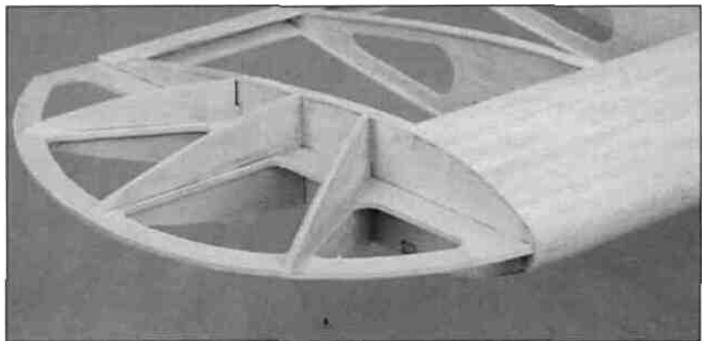
D 14. Trim and sand the LE to the shape as shown on the plan.

Install the Wing Tips

D 1. Sand the LE and TE, LE and TE sheeting, spars and capstrips flush with rib #3 at both ends of the wing.

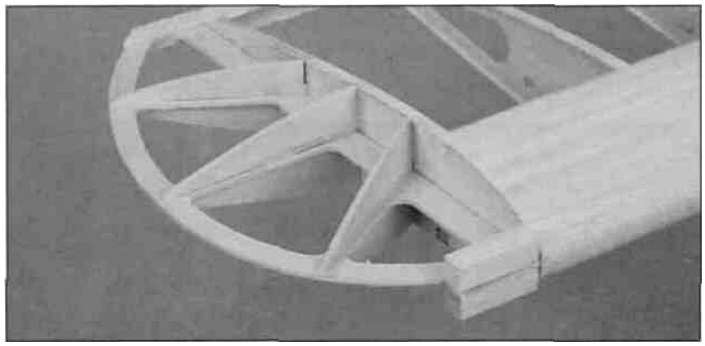


DD 2. Glue the die-cut 1/8" plywood **wing tip** perpendicular to rib *#3.*

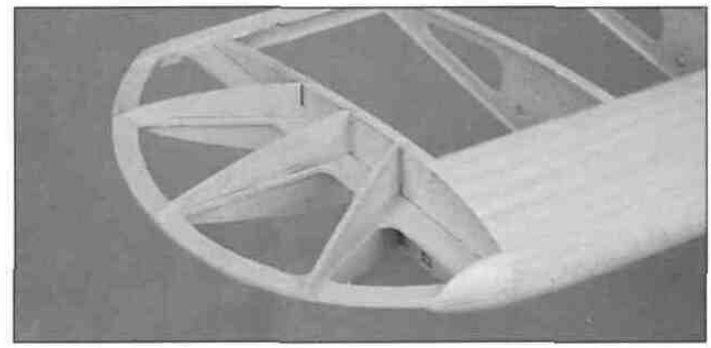


DD 3. Glue three die-cut 1/8" balsa **wing tip braces** to the top and three to the bottom of the plywood wing tip and rib #3.

DD 4. Sand the top of the wing tip braces flush with the capstrips on rib #3.



DD 5. Glue the die-cut 1/8" balsa **aft tip blocks** on the top and bottom of the aft edge of the plywood wing tip. From a 1/2" x 1/2" x 6" balsa stick, cut and glue **forward tip blocks** on the top and bottom of the forward edge of wing tip.

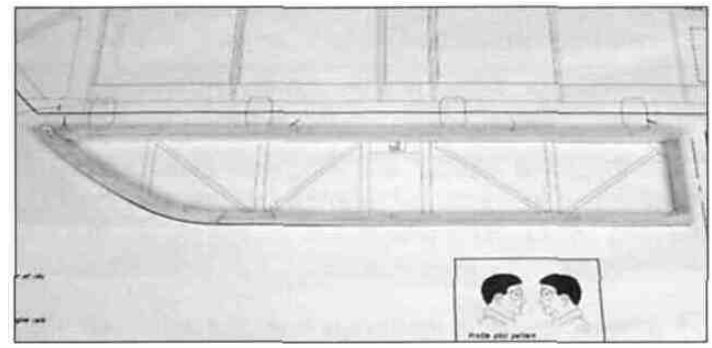


DD 6. Sand the forward and aft tip blocks to shape.

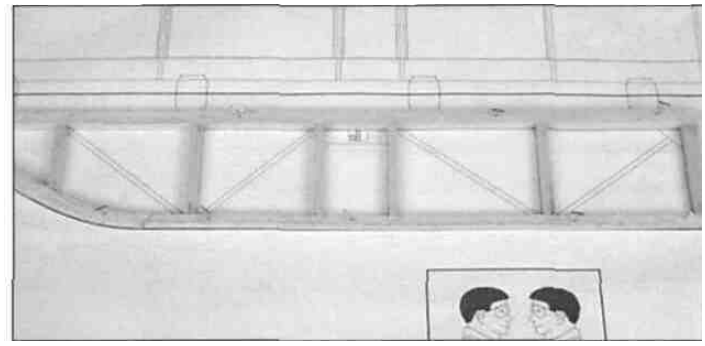
D 7. Go back to step 2 and install the other wing tip.

Build the Ailerons

D 1. Glue together the pairs of die-cut 1/8" balsa **aileron tips** to make 1/4" thick parts. Sand them to shape as shown on the plan.

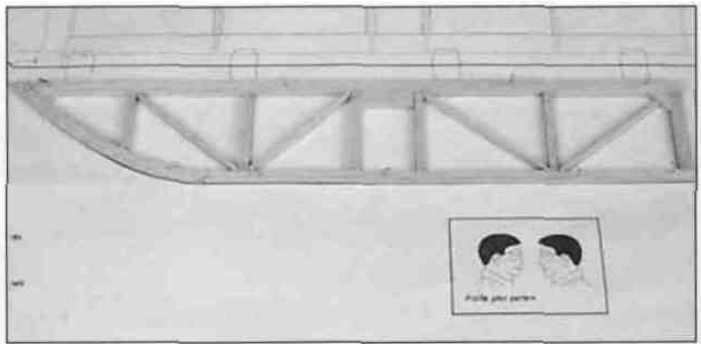


DD 2. With the waxed paper or Plan Protector still positioned over the plan, pin an aileron tip in position. Cut the aileron outer frame from 1/4" x 1/4" x 30" and 1/4" x 3/8" x 30" balsa sticks. Glue the outer frame and aileron tips together and pin it in position over the plan. Make sure the **aileron LE** is **straight** as you glue and pin it in position.



DD 3. From the 1/4" x 1/4" x 30" balsa stick, cut and glue the aileron ribs to the aileron frame.

DD 4. From the 1/4" x 3/8" x 30" balsa stick, cut and glue the two **gussets** and the **control horn base** to the aileron frame.



DD 5. Cut the **diagonal braces** from a 1/8" x 1/4" x 30" balsa stick. Glue the braces in position.

DD 6. Remove the aileron from your building board. Inspect all the glue joints and add CA to any joints that don't look strong. Sand the joints flush and the entire top and bottom surface of the aileron flat and even. Be careful that you don't sand any area too thin.

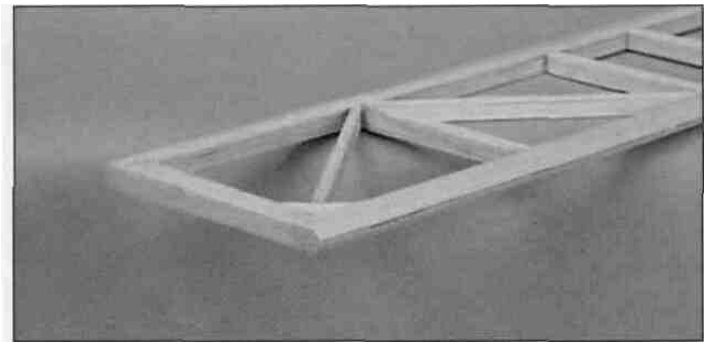
D 7. Go back to step 2 and build the second aileron.

Hinge the Aileron

D 1. Place the ailerons and wing over their locations on the plan and lightly mark the **hinge locations** on the TE of the wing and LE of the aileron.

D 2. Use the leftover hinge material to make eight 3/4" x 1" aileron hinges.

D 3. Mark the centerline of the **hinges** on the wing's TE and aileron's LE using the centerline method. Cut the hinge slots and **without using glue,** test fit the ailerons on the wing.

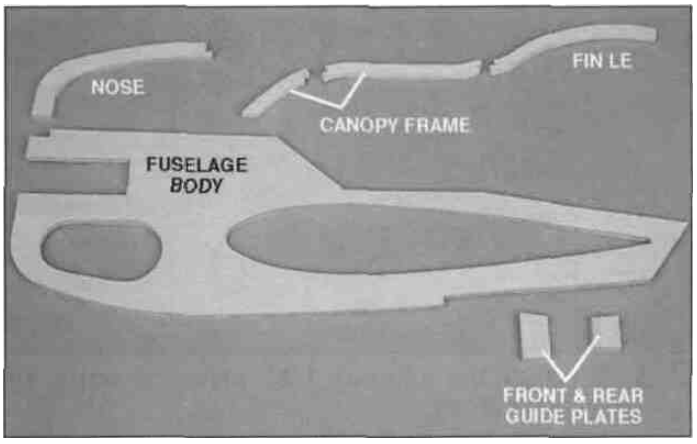


D 4. Remove the ailerons from the wing. Mark the "bevel to" lines and sand the LE of the ailerons to a "V" as shown on the plan.

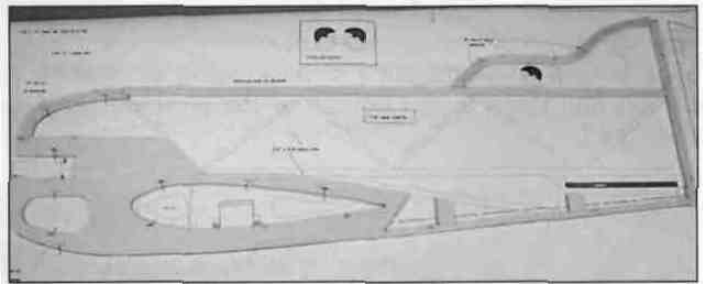
D 5. Sand a slight radius on the wing tips and the TE of the ailerons.

BUILD THE FUSELAGE

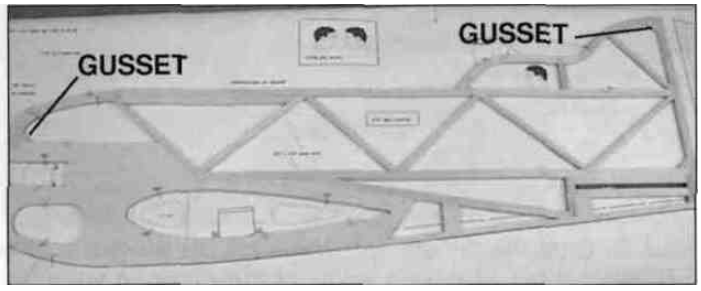
Assemble the Fuselage Frame



D 1. Make 1/4" thick parts by gluing together the pairs of die-cut 1/8" plywood, **nose, front** and **rear guide plates** and die-cut 1/8" balsa **canopy frame** and **fin LE.** Use 6-minute epoxy to glue the two die-cut 1/8" plywood **fuselage bodies** together. Apply epoxy to one side of the fuse body. Lightly clamp the second side to the first. If your fuse sides are warped, you will need to twist the fuse body in the opposite direction of the warp as the epoxy cures. This process will take some patience, but will produce a straight fuse body. Sand the parts as needed to match the plan.



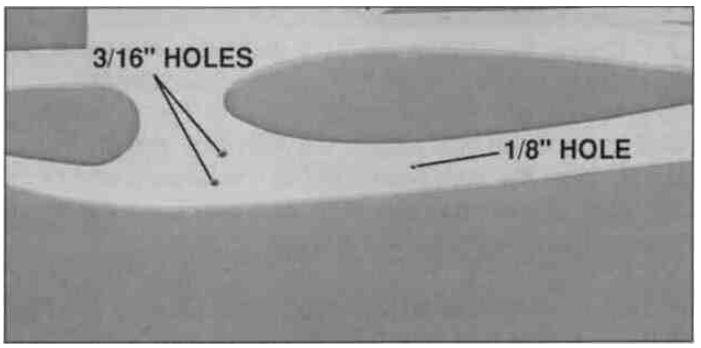
D 2. With the waxed paper or Plan Protector positioned over the fuse plan, pin the fuse body, nose, front and rear guide plates, canopy frame and fin LE in position over the plan. Cut the fuse outer frame from 1/4" x 1/4" x 30" and 1/4" x 3/8" x 30" balsa sticks. Glue the outer frame and plywood parts together and pin it in position over the plan.



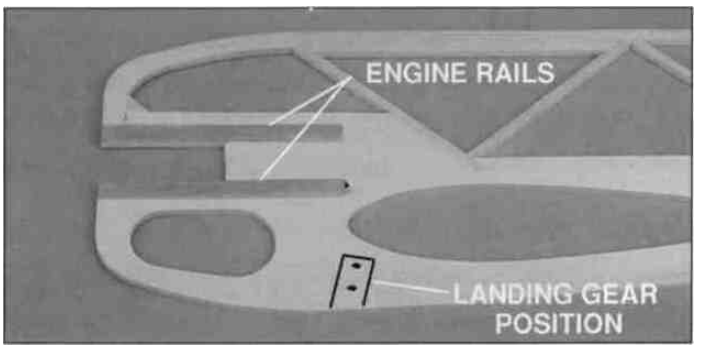
D 3. Finish assembling the interior framework from the 1/4" x 1/4" and 1/4" x 3/8" balsa sticks. Glue 1/4" gussets in the corners.

D 4 Remove the fuse frame from your building board and sand both sides flat Be careful that you don't sand any area too thin.

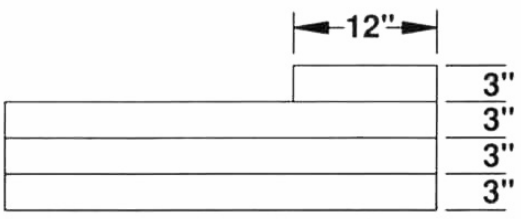
Sheet the Fuselage



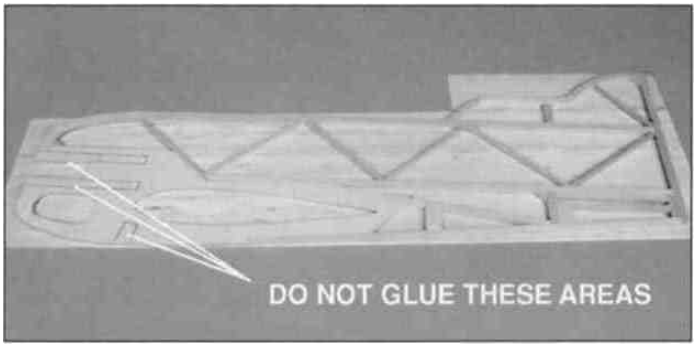
D 1 Drill a **3/16"** hole at the punch marks for the landing gear and a **1/8"** hole at the balance point.



D 2 Place two of the 1/16" x 1/2" x 6" plywood **engine rails** in position on each side of the engine opening and the **landing gear** in position on the bottom of the fuse frame Trace around the engine rails and landing gear Repeat the process on the other side of the fuse.



D 3. To make the **fuse skins,** edge glue three 1/16" x 3" x 36" balsa sheets together to make a skin 1/16" x 9" x 36". Cut a 1/16" x 3" x 24" sheet in half and edge glue one 12" piece to the three sheets as shown Sand the sheets flat with fresh 220-grit sandpaper.

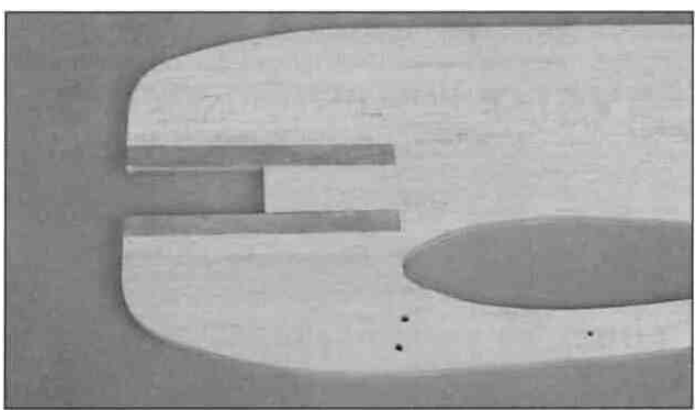


D 4 Glue the fuse skins to the right side of the fuse frame. Do not glue the fuse skin to the fuse frame at the engine rail or landing gear locations.

D 5. Use a 3/16" and 1/8" drill bit to drill through the fuse skin at the landing gear mounting holes and balance point. Make sure to back the skin with a piece of leftover wood to prevent the balsa skin from splitting when the drill bit exits. Trim and sand the fuse skin flush with the outside edge of the fuse frame and the center of the wing and stab "cut-out " Keep the sheeting you cut from the wing opening to use as a template when covering the fuse To dress-up your Gee Bee Profile, the cockpit center can also be trimmed out.

D 6. Use the remaining three sheets of 1/16" x 3" x 36" and the 1/16" x 3 x 12" to sheet the left side of the fuselage. Trim and drill the skin as before.

D 7. Place two of the plywood engine rails in position on each side of the engine opening and the landing gear at the bottom of the fuse Again, trace around them Repeat the process on the other side of the fuse Carefully trim the balsa skin from the engine rail and landing gear area.

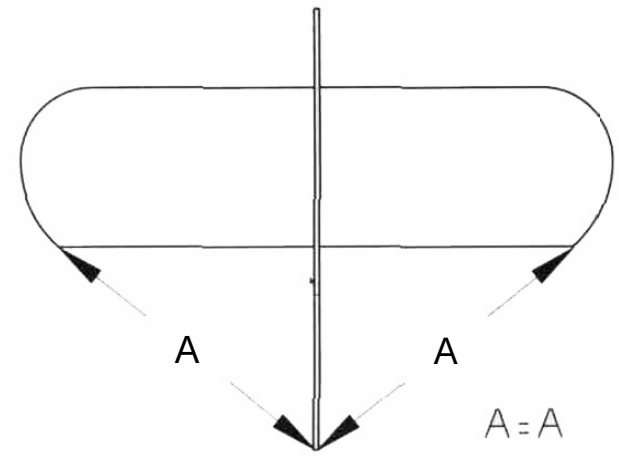


D 8 Use 30-minute epoxy to glue the engine rails to both sides of the plywood fuse body Use clamps or weights to hold the rails tightly in position.

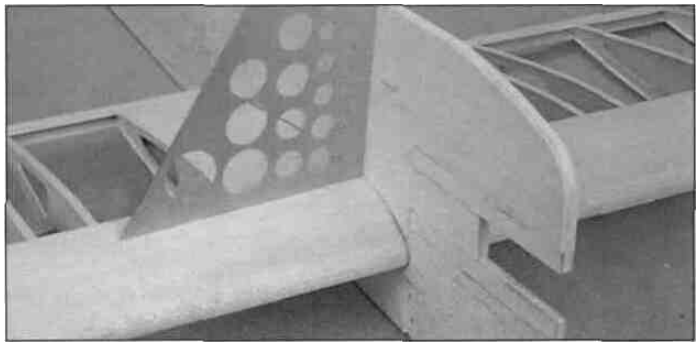
D 9 Sand a slight radius on the edges of the fuse to remove the sharp edge.

FINAL ASSEMBLY

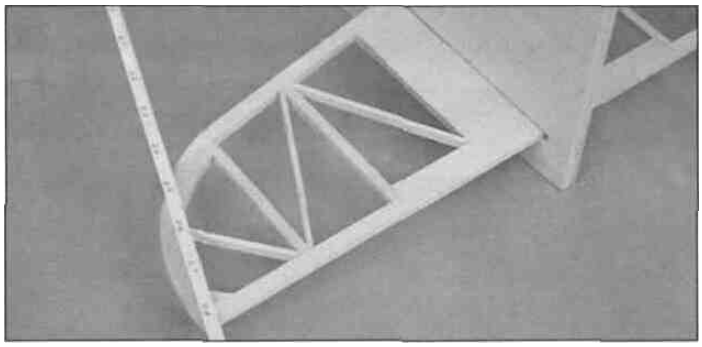
D 1. Draw a centerline from leading edge to trailing edge on the top of the wing and stab. Draw a parallel line **3/16" on** each side of the centerlines. Insert the wing in the fuse.



D 2, Carefully center the wing in the fuse. Check that the wing tips measure the same distance from the center of the tail and that the wing is perpendicular to the fuse sides.



⊢⊣ 3. Use 30-minute epoxy to glue the wing to the fuse. Check that the wing is centered and perpendicular to the **fuse.** After the epoxy has cured, fill any gaps with microballoons and epoxy.



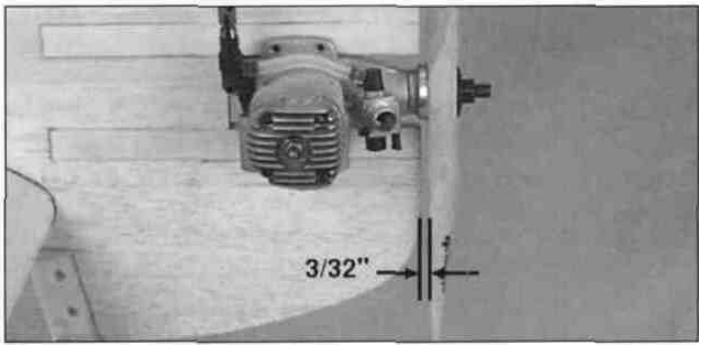
D 4. Center the stab in the stab slot using the centerline you drew in step #1. View the airplane from the aft end. If the stab tips are not an equal distance above the wing, carefully sand the high side of the stab **slot** until the stab is aligned. With the stab positioned at the forward end of the stab slot, check that the stab tips measure the same distance from the center of the nose.

D 5. Use 30-minute epoxy to glue the stab to the fuse. After the epoxy has cured, fill any gaps with a mixture of microballoons and epoxy.

D 6. Position the rudder on the TE of the fuse and mark the hinge and tailgear bearing locations. Carefully cut hinge and tailgear bearing slots in the TE of the fuse. Test fit the rudder on the fuse.

D 7. Attach the landing gear to the fuse using two **6-32 x** 3/4" cap head screws, two #6 **washers** and two **6-32 lock nuts.**

MOUNT THE ENGINE



D1 1. Install a propeller on your engine. Center the engine between the engine rails with the back of the propeller approximately **3/32"** from the front of the **fuselage.**

D 2. Mark the engine mounting holes on the engine rails. Drill four 1/8" holes through the engine rails at the marks.

D 3. Use two #4 **washers** under the **two front** holes between the engine and the rails. This will provide the 2 degrees of right thrust required. Secure the engine to the rails with four **4-40 x 1" pan head bolts, 4-40 locknuts and #4 washers.**

BALANCE THE MODEL LATERALLY

Do not confuse this procedure with "checking the C.G." that will be discussed later in the manual

Now that the model is nearly completed, you should balance it laterally (side-to-side) An airplane that is laterally balanced will track better during acrobatic maneuvers Here's how

1 Temporarily attach the elevators, rudder, engine and landing gear Lift the model by the propeller shaft and the bottom of the fuse near the rudder. This will require an assistant Do this several times

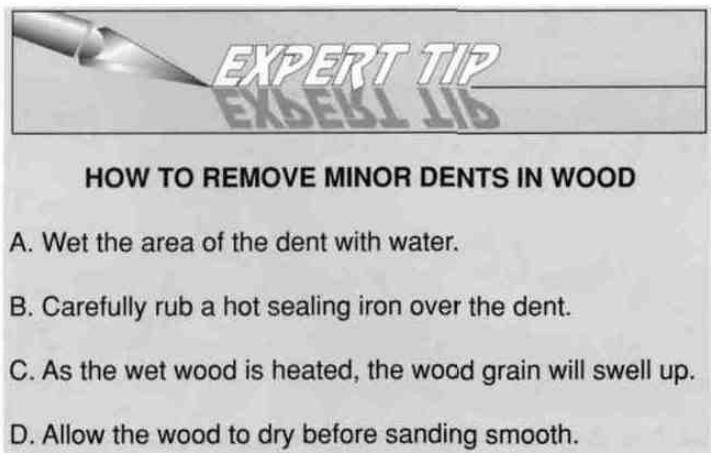
2 The wing that consistently drops indicates the heavy side Balance the model by adding weight to the opposite wing tip.

COVERING

Preparing the Surface

D 1 Remove the engine, landing gear and any other hardware you may have installed.

D 2 Most of the model should be rough-sanded by now, with all edges sanded and rounded following the cross-section views on the plans Fill all dents, seams, low **spots** and notches with HobbyLite" balsa colored filler



D 3 After the filler has dried use progressively finer grades of sandpaper to even and smooth all the edges, seams and surfaces Remove all the balsa dust from the model with compressed air or a vacuum with a brush and a tack cloth

Covering Technique

Cover the model with Top Flite MonoKote film, using the suggested covering sequence that follows Before you cover the fuselage first apply 1/4" wide strips of MonoKote film in the corners where the stab and wing meet the fuselage Proceed to cover the stab with pre-cut pieces that meet in the corners and overlap the 1/4" strips Never cut the covering on the stab and fin after it has been applied except around the leading and trailing edges and the tips Modelers who do this may cut through the covering and into the stab This will weaken the structure to a point where it may fail during flight.

Some modelers prefer to cover the top and bottom of the ailerons with one strip of MonoKote film This is done by covering the bottom first, then wrapping the MonoKote film up over the leading edge

We used Top Flite MonoKote White (TOPQ0204), Missile Red (TOPQ0218) and Black (TOPQ0208) to cover our Gee Bee Profile

Suggested Covering Sequence

Fuselage and Tail:

1. 1/4" strips at the stab and wing as described
2. Fuselage right side (use the "balsa template' made on page 15 to cut out the wing opening)
3. Fuselage left side (Use the template here also)
4. Fin TE, followed by stab TE
5. Stab bottom, followed by top
6. Rudder Leading Edge
7. Rudder, followed by the left side
8. Elevator **LE**
9. Elevator bottoms, followed by the top

Wing:

1. T E of wing
2. Bottom right, followed by the left wing panel
3. Top right, followed by the left wing panel
4. Aileron LE, followed by the bottom and top

FINAL HOOKUPS AND CHECKS

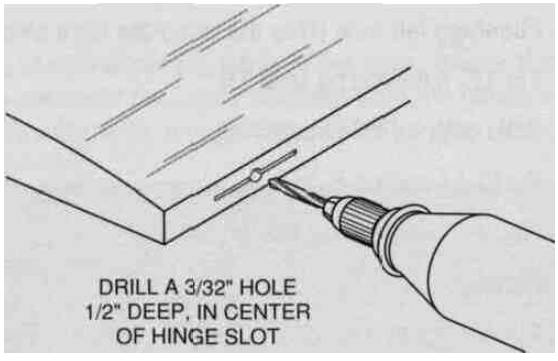
Install the Hinges

D 1. Starting with the elevators and stab, cut the covering from the hinge slots

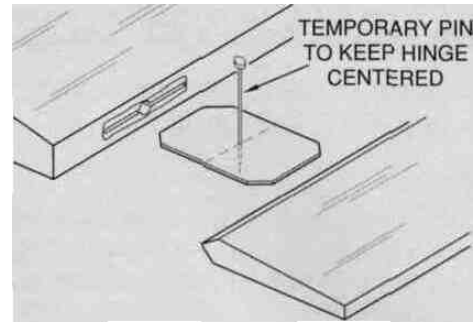
INSTALLING CA HINGES

The hinge material supplied in this kit consists of a 3 layer lamination of mylar and polyester It is specially made for the purpose of hinging model airplane control surfaces Properly installed, this type of hinge provides the best combination of strength, durability and ease of installation. We trust even our best show models to these hinges, but it is essential to install them correctly Please read the following instructions and follow them carefully to obtain the best results These instructions may be used to effectively install any of the various brands of CA hinges.

The most common mistake made by modelers when installing this type of hinge is not applying a sufficient amount of glue to fully secure the hinge over its entire surface area, or, the hinge slots are very tight, restricting the flow of CA to the **back** of the hinges This results in hinges that are only "tack glued" approximately 1/8" to 1/4" into the hinge slots The following technique has been developed to help ensure thorough and secure gluing.



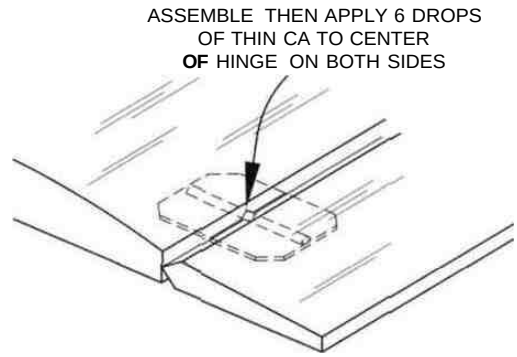
Drill a 3/32" hole, 1/2" deep, in the center of the hinge slot If you use a Dremel MultiPro" for this task, it will result in a cleaner hole than if you use a slower speed drill Drilling the hole will twist some of the wood fibers into the slot, making it difficult to insert the hinge, so you should reinsert the knife blade, working it back and forth a few times to clean out the slot.



It is best to leave a very slight hinge gap, rather than closing it up tight, to help prevent the CA from wicking along the hinge line Make sure the control surfaces will deflect to the recommended throws without binding If you have cut your hinge slots too deep, the hinges may slide in too far, leaving only a small portion of the hinge in the control surface To avoid this, you may insert a small pin through the center of each hinge before installing This pin will keep the hinge centered while you install the control surfaces

D 2 Clean the elevator joiner wire with alcohol and a paper towel to remove any oil residue

D 3. Glue the joiner wire in the elevators with 6-minute epoxy Before the epoxy cures, tape a flat stick to the left and right side of the stab and to the elevators This will ensure that both elevators are even.



D 4. Apply 6 drops of thin CA adhesive to both sides of each hinge Allow a few seconds between drops for the CA to wick into the slot.

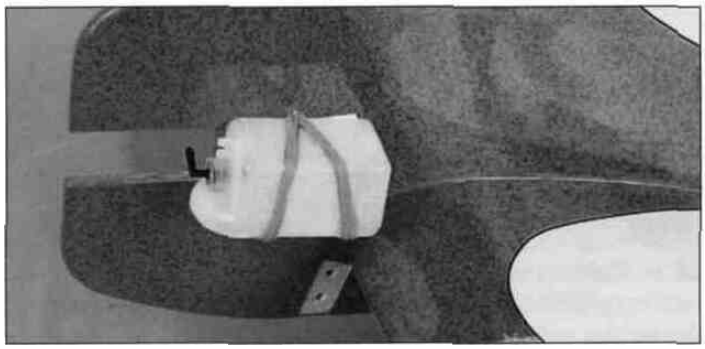
D 5 Install the ailerons with their hinges repeating the gluing technique described previously.

D 6 Cut a slot in the TE of the fin for the tailwheel bracket nylon bearing.

D 7 Lightly coat the tailwheel wire with petroleum jelly where it enters the nylon bearing This will prevent the wire from becoming glued to the bearing

D 8 Pack the tailwheel bracket hole in the rudder and the slot in the TE of the fin with 30 minute epoxy Install the rudder with its hinges Repeat the gluing technique described previously and allow the epoxy to cure.

Install the Fuel Tank



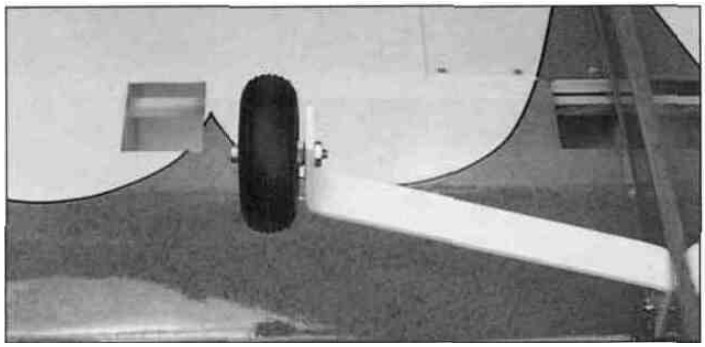
D 1. Assemble your 6 oz. fuel tank per the manufacturer's instructions. Open the three "closed loop" eyelets slightly to make hooks. Locate the position of the three hooks and thread them into the left side of the fuselage. Place a piece of 1/4" foam between the fuselage side and the tank. We recommend you use 3 rubber bands to secure the tank **to** the aircraft.

D 2. Reinstall the engine. Connect fuel tubes to the fuel pick-up fitting and the pressure fitting, on the fuel tank.

D 3. Connect the fuel pick-up tube to the carburetor. Connect the pressure tube to the muffler.

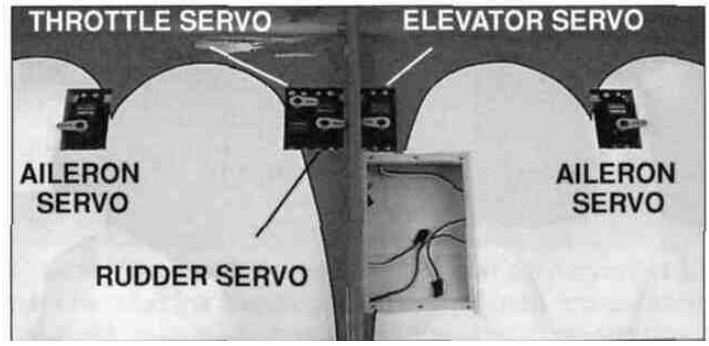
Install the Wheels

D 1. Install a 1" tail wheel (not included) on the tailwheel wire. Secure the tail wheel with a 3/32" wheel collar **and** 4-40 x 1/8" set screw.

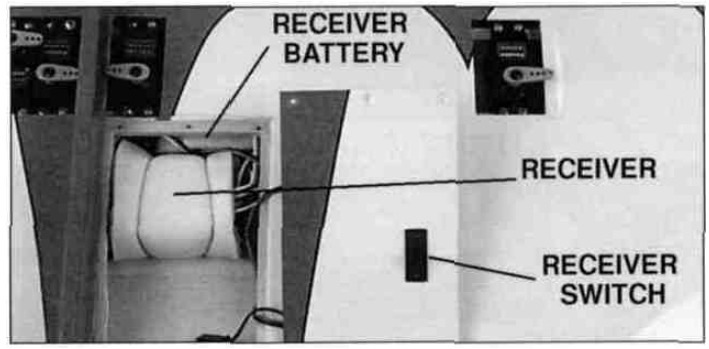


D 2. Reinstall the landing gear to the fuse using 6-32 x 3/4" cap head bolts and lock nuts. Insert a **8-32 x 1-1/4" socket cap head bolt** through each 2-1/2" wheel (not included). Screw an **8-32 nut** onto each bolt. **Do not** tighten the nuts completely. The wheels must rotate freely. Insert the cap head bolt through the landing gear, apply thread lock to the bolt threads and secure the bolt to the landing gear with a second 8-32 nut.

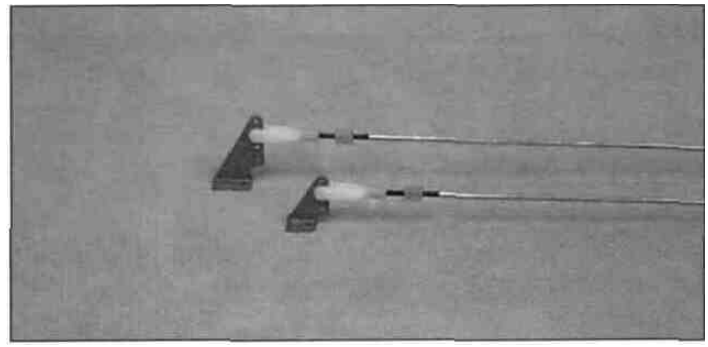
INSTALL THE RADIO SYSTEM



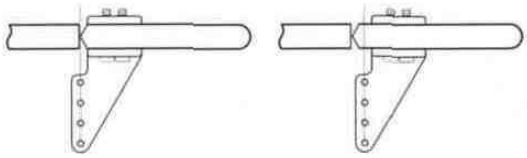
D 1. Install the elevator, rudder, throttle and two aileron servos in the wing. Space the rudder, elevator and throttle servos so that their servo arms do not interfere with each other or the fuselage side. **NOTE:** The servo arms in the picture have been painted for clarity.



D 2. Wrap the receiver battery in foam padding and insert it in the front of the radio compartment. Plug the servos into the receiver. Wrap the receiver in foam padding and place it behind the battery at the front of the radio compartment. Install the receiver switch in the hatch cover and plug the receiver battery into the receiver switch.

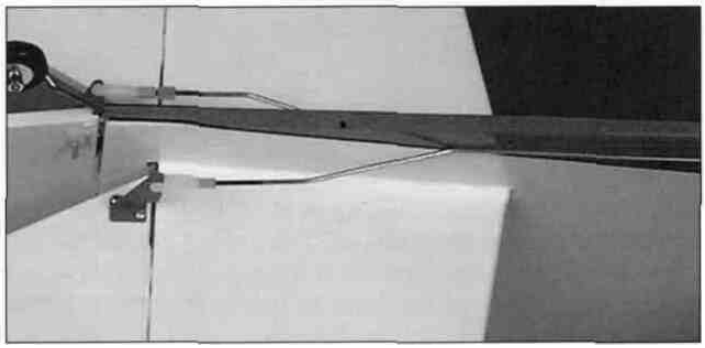


D 3. Slide a **silicone retainer** over the threaded end of two **36" threaded pushrods.** Thread a nylon clevis 14 turns onto each pushrod. Connect the clevises to one **large** and one **small nylon control horn. NOTE:** The control horns in the picture have been painted for clarity.

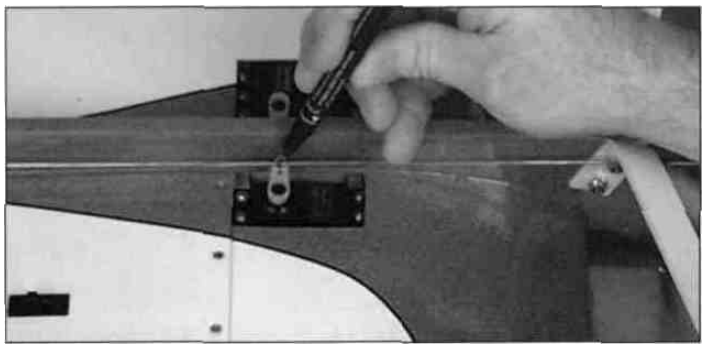


D 4. Position the large control horn on the elevator and the small control horn on the rudder. Align the horns with the hinge line, as shown in the sketch and the plan. Mark the location of the mounting holes and drill a 3/32" hole at the marks. Mount the control horns on the elevator and rudder with the **backing plate** and **2-56 x 1/2" screws.**

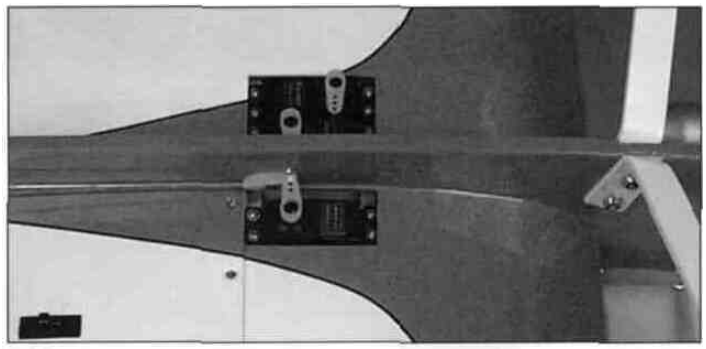
D 5. Mark the location on both sides of the fuse for the **nylon pushrod guides.** Refer to the fuse plan for the proper location. **NOTE:** The guides on the left side are off-set from the guides on the right side.



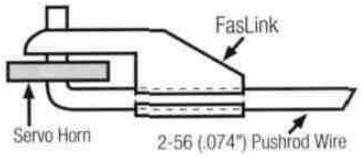
D 6. Bend both pushrods so that they are positioned next to the fuse sides. Make sure the bends are aft of the aft pushrod guide location.



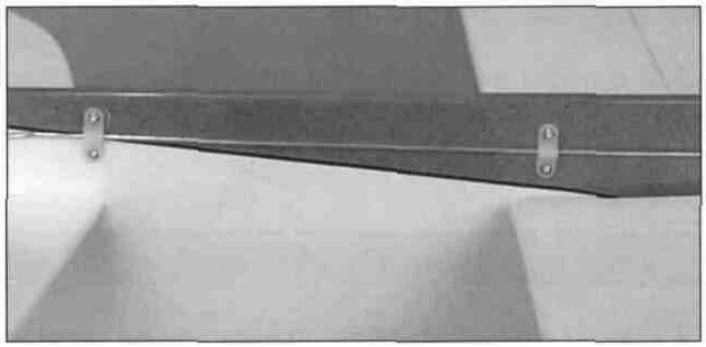
D 7. With the radio switched on and the servos centered, position the elevator and rudder to neutral. Mark the pushrods where they cross the mounting holes in the servo arms.



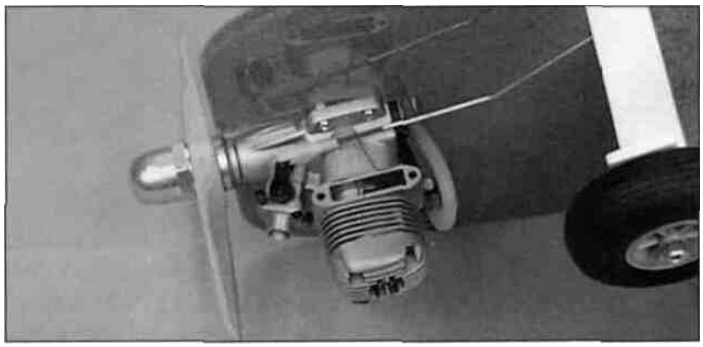
D 8. Make a 90° bend at the marks you made. Cut the pushrods 3/8" above the bend and connect the pushrods to the servos with **nylon faslinks.**



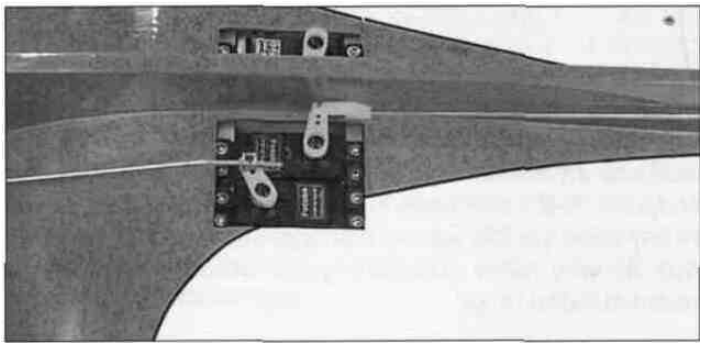
NOTE: If necessary, enlarge the holes in the servo arms with a 5/64" drill bit (or a #48 drill bit for precision).



D 9. Position the **nylon pushrod guides** on the sides of the fuse, at the marks made in step 5. Mark the location of the guide mounting holes and drill a 1/16" hole at each mark. Attach the guides to the fuse sides with ***#2* x 3/8" sheet metal screws.**



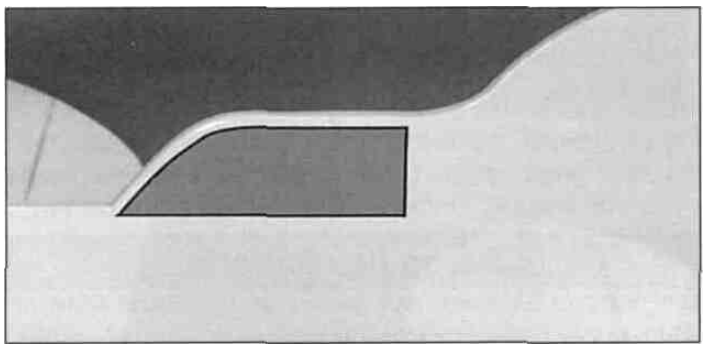
D 10. Slide a silicone retainer over the threaded end of a **12" threaded pushrod.** Thread a nylon clevis 14 turns onto the pushrod. Bend and cut the pushrod to fit your engine installation, making sure that the muffler does not interfere with the pushrod.



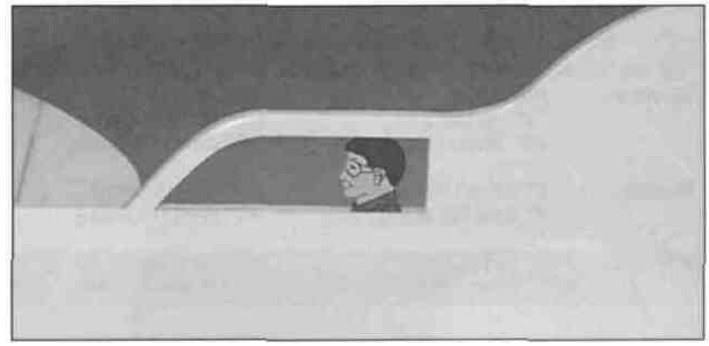
U 11. Install the **Screw-Lock Pushrod Connector** in the throttle servo arm. Slide the throttle pushrod through the pushrod connector. With the radio switched on, adjust the throttle trim to high. Move the throttle stick to full throttle and move the throttle arm on the carburetor to full open. Tighten the 4-40 **set** screw in the pushrod connector. Check the movement of the throttle. The carburetor should not close completely when the throttle stick is moved to low. The carburetor should close completely only when the throttle trim is moved to low.

D 12. Install the 12" aileron pushrods following the same procedure used to install the elevator pushrod.

APPLYING THE DECALS

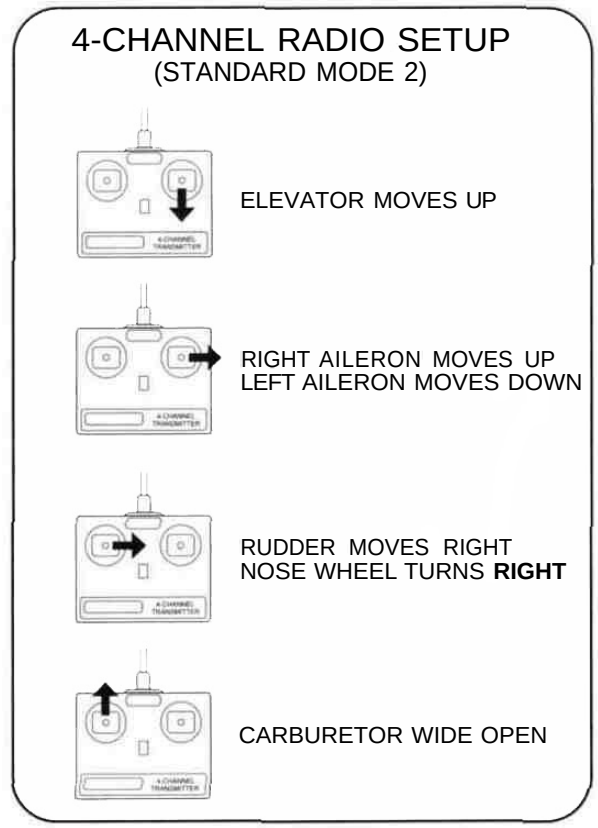


D 1. The cockpit can be finished in two different styles. If you left the sheeting over the cockpit area, the canopy decal can be cut from the decal sheet and placed over the cockpit area.



D 2. Or, the covering can be cut from over the cockpit opening. Cut the drawing of the pilot bust from the plan sheet and glue it to a leftover piece of plywood. Trim the plywood to the outline of the bust. Felt tip markers or paint can be used to color the bust. Stick a pin in the bottom of the bust and cut the end of the pin off. Insert the bust in the cockpit and glue in place. Clear MonoKote or thin butyrate can be placed over the cockpit to simulate windows.

SET THE CONTROL THROWS



The throws are measured at the widest part of the elevators, rudder and ailerons. Adjust the position of the pushrods at the servo horns to control the amount of throw. You may also use the ATV'S if your transmitter has them but the mechanical linkages should still be set so the ATV'S are near 100% for the best servo resolution (smoothest, most proportional movement).

We recommend the following control surface throws:

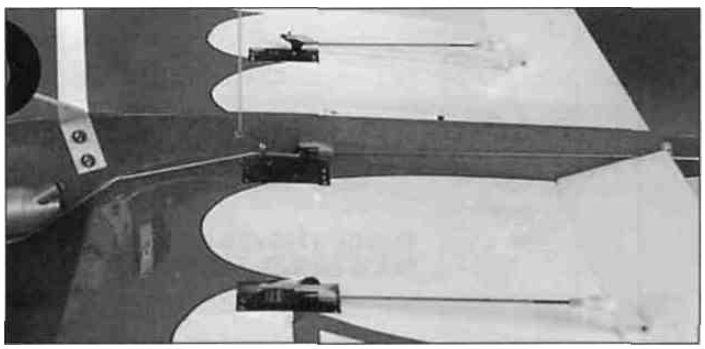
	High Rate	Low Rate
Elevator:	**7/8" up [22.2mm]**	**5/8" up [15.8mm]**
	7/8" down [22.2mm]	**5/8" down [15.8mm]**
Rudder:	**2" left [50.8mm]**	**5/8" left [15.8mm]**
	2" right [50.8mm]	**5/8" right [15.8mm]**
Ailerons:	**1" up [25.4mm]**	**3/4" up [19mm]**
	1" down [25.4mm]	**3/4" down [19mm]**

NOTE: If your radio does not have dual rates, we recommend setting the throws at the **low rate** setting. The high rate throws are tor "hot dog" flying.

We added approximately 20% exponential to all control surfaces This reduces the sensitivity of the control surfaces at the neutral position.

NOTE: The balance and control throws for the Gee Bee Profile have been extensively tested This chart indicates the settings at which the Gee Bee Profile flies best Please set up your model to the specifications listed above If, after you become comfortable with your Gee Bee Profile, you would like to adjust the throws to suit your tastes, that's fine Too much throw can force the plane into a stall or snap roll, so remember, "more is not always better."

BALANCING YOUR MODEL



NOTE: This section is VERY important and must NOT be omitted' A model that is not properly balanced will be unstable and possibly unflyable.

D 1 The balancing point **(C.G.)** is located **3-7/8"[98.4mm]** back from the leading edge of the wing Hang the Gee Bee Profile by a string threaded through the balance hole on the bottom of the model This is the balance point at which your model should balance for your first flights After initial trim flights and when you become more acquainted with your Gee Bee Profile, you may wish to experiment by shifting the balance up to **3/8"[9.5mm]** forward or backward to change its flying characteristics Moving the balance forward may improve the smoothness and stability, but the model may then require more speed for takeoff and may become more difficult to slow for landing Moving the balance aft makes the model more agile with a lighter, snappier "feel," and often improves knife-edge capabilities In any case, please start at the location we recommend Do not at any time balance your model outside the recommended range.

Q 2 With all parts of the model installed (ready-to-fly) and an empty fuel tank, lift the model at the balance point If the tail drops, the model is "tail heavy" and you must add weight to the nose to balance the model If the nose drops, it is "nose heavy and you must add weight to the tail to balance the model.

NOTE: Nose weight may be easily installed by using a "spinner weight" Tail weight may be added by using Great Planes (GPMQ4485) "stick-on" lead weights.

If possible, first attempt to balance the model by changing the position of the receiver battery If you are unable to obtain good balance by doing so, then it will be necessary to add weight to the nose or tail to achieve the proper balance point.

PREFLIGHT

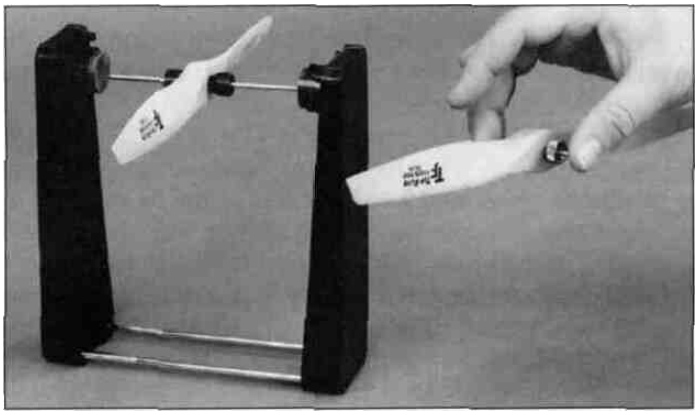
At this time, check all connections including servo horn screws, clevises, servo cords and extensions Make sure you have installed the nylon retainer on the Screw-Lock Pushrod Connector and the silicone retainers on all the clevises.

Charge the Batteries

Follow the battery charging procedures in your radio instruction manual You should always charge your transmitter and receiver batteries the night before you go flying, and at other times as recommended by the radio manufacturer.

Balance the Propeller

Balance your propellers carefully before flying **An** unbalanced prop is the single most significant cause of vibration Not only will engine mounting screws and bolts vibrate out, possibly with disastrous effect but vibration will also damage your radio receiver and battery Vibration may cause your fuel to foam, which will, in turn cause your engine to run lean or quit.



We use a Top Flite Precision Magnetic Prop Balancer (TOPQ5700) in the workshop and keep a Great Planes Finger Balancer (GPMQ5000) in our flight box

Find a Safe Place to Fly

Since you have chosen the Gee Bee Profile, we assume that you are an experienced modeler Therefore, you should already know about AMA chartered flying fields and other safe places to fly If for some reason you are a relatively inexperienced modeler and have not been informed, we strongly suggest that the best place to fly is an AMA chartered club field Ask the AMA or your local hobby shop dealer if there is a club in your area and join Club fields are set up for R/C flying and that makes your outing safer and more enjoyable The AMA address and telephone number are in the front of this manual If a club and flying site are not available, find a large, grassy area at least 6 miles away from houses, buildings and streets and any other R/C radio operation like R/C boat and R/C cars A schoolyard may look inviting but is too close to people, power lines and possible radio interference

Ground Check the Model

Inspect your radio installation and confirm that all the control surfaces respond correctly to the transmitter inputs The engine operation must also be checked by confirming that the engine idles reliably, transitions smoothly and rapidly to full power and maintains full power indefinitely The engine must be "broken-in" on the ground by running it for at least two tanks of fuel Follow the engine manufacturer s recommendations for break-in Make sure all screws remain tight, that the hinges are secure and that the prop is on tight.

Range Check Your Radio

Whenever you go to the flying field check the operational range of the radio before the first flight of the day First, make sure no one else is on your frequency (channel) With your transmitter on, you should be able to walk at least 100 feet away from the model and still have control While you work the controls, have a helper stand by your model and tell you what the control surfaces are doing Repeat this with the engine running at various speeds with a helper holding the model If the control surfaces are not always responding correctly, do not fly Find and correct the problem first Look for loose servo connections or corrosion, loose bolts that may cause vibration, a defective on/off switch, low battery voltage or a defective receiver battery, a damaged receiver antenna, or a receiver crystal that may have been damaged from a previous crash

Engine Safety Precautions

NOTE: Failure to follow these safety precautions may result in severe injury to yourself and others

Keep all engine fuel in a safe place away from high heat, sparks or flames, as fuel is very flammable Do not smoke near the engine or fuel, and remember that the engine exhaust gives off a great deal of deadly carbon monoxide. **Do Not** run the engine in a closed room or garage

Get help from an experienced pilot when learning to operate engines.

Use safety glasses when starting or running engines.

Do not run the engine in an area of loose gravel or sand; the propeller may throw such material in your face or eyes.

Keep these items away from the prop loose clothing, shirts sleeves, ties, scarfs, long hair or loose objects such as pencils or screwdrivers that may fall out of shirt or jacket pockets into the prop.

Use a "chicken stick" or electric starter to start the engine Do not use your fingers to flip the propeller Make certain the glow plug clip or connector is secure so that it will not **pop** off or otherwise get into the running propeller.

Make all engine adjustments from behind the rotating propeller.

The engine gets hot' Do not touch it during or right after operation Make sure fuel lines are in good condition so fuel will not leak onto a hot engine, causing a fire.

To stop a glow engine, cut off the fuel supply by closing off the fuel line or following the engine manufacturer's recommendations Do not Use hands, fingers or any other body part to try to stop the engine Do not throw anything into the propeller of a running engine

AMA SAFETY CODE(excerpt)

Read and abide by the following Academy of Model Aeronautics Official Safely Code.

General

1. I will not fly my model aircraft in sanctioned events, air shows, or model flying demonstrations until it has been proven to be airworthy by having been previously successfully flight tested.

2. I will not fly my model aircraft higher that approximately 400 feet within 3 miles of an airport without notifying the airport operator I will give right of way to and avoid flying in the proximity of full-scale aircraft Where necessary an observer shall be used to supervise flying to avoid having models fly in the proximity of full-scale aircraft

3. Where established, I will abide by the safety rules for the flying site I use and I will not willfully and deliberately fly my models in a careless, reckless and/or dangerous manner.

4 I will not fly my model unless it is identified with my name and address or AMA number, on or in the model

5. I will not operate models with pyrotechnics (any device that explodes, burns, or propels a projectile or any kind)

Radio Control

1.I will have completed a successful radio equipment **ground** check before the first flight of a new or repaired model

2 I will not fly my model aircraft in the presence of spectators until I become a qualified flier, unless assisted by an experienced helper.

3. I will perform my initial turn after takeoff away from the pit or spectator areas and I will not thereafter fly over pit or spectator areas, unless beyond my control.

4. I will operate my model using only radio control frequencies currently allowed by the Federal Communications Commission

FLYING

Caution: (THIS APPLIES TO ALL R/C AIRPLANES)

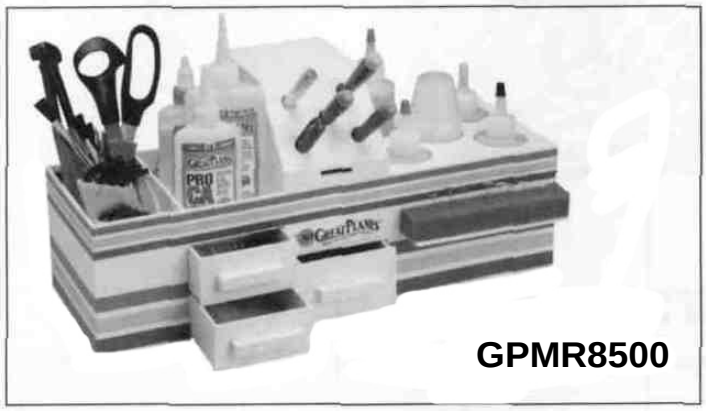
If, while flying, you notice any unusual sounds, such as a low-pitched "buzz", this may indicate control surface "flutter" Because flutter can quickly destroy components or your airplane, any time you detect flutter you must immediately cut the throttle and land the airplane' Check all servo grommets for deterioration (this may indicate which surface fluttered) and make sure all pushrod linkages are slop-free If it fluttered once, it will probably flutter again under similar circumstances unless you can eliminate the slop or flexing in the linkages Here are some things which can result in flutter Excessive hinge gap, Not mounting control horns solidly, Sloppy fit of clevis pin in horn, elasticity present in flexible plastic pushrods, Side-play of pushrods in guide tube caused by tight bends, sloppy fit of control rods in servo horns, insufficient glue used when gluing in torque rods, Excessive flexing of aileron, caused by using too soft balsa, Excessive play" or "backlash" in servo gears, and insecure servo mounting

The Great Planes Gee Bee Profile is a real-flying plane that flies smoothly and predictably The Gee Bee Profile does not, however, possess the self-recovery characteristics of a primary R/C trainer and should only be flown by experienced R/C Pilots.

BUILDING NOTES	
Kit Purchased Date:	Date Construction Finished:
Where Purchased:	Finished Weight:
Date Construction Started:	Date of First Flight:

FLIGHT LOG

THESE ACCESSORIES WILL COMPLEMENT YOUR GEE BEE EXPERIENCE



GPMR8500

Bench Topper holds the inexpensive answer to building supply storage and organization hassles It assembles quickly into a 155" long x 7 25" high x 5 25" deep caddy that fits comfortably on any bench—or can be mounted conveniently on a wall The lite ply parts simply CA together You can even customize its top center section to suit your special storage needs'

GPMR2400

Accurate balancing makes trainers more stable, low-wing aerobats more agile, and pylon planes faster than ever The innovative **C.G. Machine"** makes it easy to achieve optimum balance without measuring, without marking, and without the - errors that fingertip balancing can cause You'll quickly be able to pinpoint your planes exact center of gravity Then, you'll know at a glance whether weight should be added, removed or relocated The C G Machine works with kits and ARF models of any size and wingspan Its slanted wire balancing posts support models weighing up to 40 pounds

ANOTHER GREAT PLANE

Great Planes Dazzler™

Nothing unleashes your wild side like the Dazzler. Big on performance and low on frills, it's perfect for those times when all you want is to LET 'ER RIP! With just a bushing .40, the Dazzler dances through extreme maneuvers. Its nearly symmetrical airfoil and oversized control surfaces supply all the snap you need for rocketing rolls and wild aerobatics. The dual aileron servo set-up minimizes flutter and slashes response time to the bone. You'll need only one or two days to frame up the Dazzler's lightweight, all-wood parts—thanks to its basic box fuselage and simple stick construction. The entire kit can be built in as little as two weekends!

GPMA0480

Wingspan: 48 in (1220 mm)
Wing Area: 578 sq in (37 3 sq dm)
Weight: 3 5-4lb (1590-1810 g)
Length: 43 in (1170 mm)
Radio Required: 4-channel with 5 servos
Engine Required: 2-stroke 32- 40 cu in (5 3-6 5 cc)
4-stroke 40-.52 cu in (6 5-8 5 cc)

TWO-VIEW DRAWING