ADVANCE NOTICE OF REVISION

(This Notice **supplements** all earlier Notices)

Section II: Tools and Techniques

Page 49: In the paragraph on *"Mixing the Resin,"* the text regarding mixing containers will be clarified. The best mixing container is an **unwaxed** paper tub. These are available in a convenient 8 oz. size in sleeves of 100 from S-H; consult the *GlaStar Options Catalog*. In lieu of unwaxed paper tubs, any clean metal or glass container is acceptable. However, **waxed** paper tubs are **unacceptable**, as the wax can contaminate the resin, and plastic containers are risky, because the resin may not be compatible with all types of plastic.

Section III: Rudder Assembly

Page 13: The following text will be added at the end of the second Note: "Aim for a distance between the two vertical supports of each pair of about **1/4"** at the table surface. This will guarantee that the rudder skin will be held securely between the supports without bottoming out against the table top."

Section IV: Horizontal Stabilizer Assembly

Page 1: The Part No. for the "Rib, nose" (Key No. 9) will be changed to 302-00009**-03**. (Dash 01 ribs supplied in early kits are still serviceable parts.)

Section V: Elevator Assembly

Page 1: The Part Nos. for the "Skin, upper left" and "Skin, upper right" (Key Nos. 1 and 2) will be changed to 303-00001**-03** and 303-00002**-03**, respectively. (Dash 01 skins supplied in early kits are still serviceable parts.)

Pages 30 and 31: A second dimension will be added for the upper flange rivet line in the text of Step 20 and in Figure 14. The **7/16"** dimension shown remains appropriate for **-01** elevator upper skins (P/N 303-00001-01 and 303-00002-01). However, due to a change in hole locations in the **-03** upper skins, this dimension should be **5/16"** for **-03** upper skins (P/N 303-00001-03 and 303-00002-03).

Page 60: The last sentence in the Electric Trim Option box will be changed to read: "Return to **Step 42.1** of this manual when the specified option steps have been completed."

Page 62: A Note will be added to Step 42.1 specifying that the step applies only to **-01** elevator upper skins (P/N 303-00001-01 and 303-00002-01). **Dash 03** upper skins (P/N 303-00001-03 and 303-00002-03) do not require trimming.

Page 98: The first sentence of the Hint will be corrected as follows: "A good way to align the hinges is to insert a 3/16" piece of wood or metal into the gap between the stabilizer and elevator just **inboard** of the outboard hinges . . ."

Section VI: Wing Assembly

Page 2: The Part No. for the "Doubler, aft spar/strut beam" (Key No. 58) will be changed to 201-02005-**03**. (Dash 01 doublers supplied in early kits are still serviceable parts.)

Page 14: The first paragraph of Step 1 contained a computer printing error in one run of *Assembly Manuals*. The third sentence in the paragraph should read: "Once you have assembled the base table, install the end posts as shown in Figure 2." This error has already been corrected in subsequent printing runs, and the revision level of the page will not change.

Page 46: A Note will be added explaining that **all** -03 aft spar strut beam doublers (P/N 201-02005-03) and **most** -01 doublers (P/N 201-02005-01) are factory-trimmed and do not require the builder trimming described in the first paragraph.

Pages 47–49: Early spars had three pre-drilled rivet holes for Flap Cove Rib 11 (which is located immediately adjacent to the four strut beam bolt holes). The center hole of this trio required a flush-head rivet to provide clearance for the strut beam attach angles. In later spars, this rivet hole was eliminated, as it was determined that it lay too close to the clearance notch cut in the rib web for the strut beam attach angle bolt (see Step 21). The instructions and illustrations will therefore be changed to eliminate this hole from builder-drilled parts and to specify that builders with early spars should ignore this hole.

Specifically, in Figure 19, the center hole in the Flap Cove Rib 11 column and its countersink call-out will be eliminated. In Figure 20, the hole will be eliminated from the doubler but left in the spar, with a call-out added referring to the Note on Page 49. Additionally, the call-out in Figure 20 to drill with a #40 bit in 14 places will be changed to read "**13 places**."

On Page 49, all references to drilling in fourteen places will be replaced with references to **thirteen places**, and the text of the Note will be changed to read as follows: "Early spars had a third hole in the Flap Cove Rib 11 column, as shown in Figure 20. Disregard this hole. It will not be used."

Page 78: The last paragraph on the page will be eliminated.

Page 84: In the second Note, the text from the words "One of the strut beam attach angles . . ." to the end of the Note will be eliminated.

Pages 130 and 131: The text of the second paragraph in Step 39 and Figure 56 will be changed to clarify the purpose and necessity of stepping the cap strips approximately 1/16" off the spar web. This is necessary to clear the forward spar web strut beam doubler, and contrary to the current instructions, this will likely be necessary for **both** the upper **and** lower 36" cap strips.

However, one or both of the 72" strips will likely clear the doubler to lie snug against the spar web. The text and illustration will be changed to indicate that **each** cap strip should be positioned **as far forward as possible**, whether this puts it against the spar web or against the strut beam doubler.

Page 171: A Note will be added explaining that the lightening hole shown in Figure 74.1 is a non-standard, prototype feature. The photo is intended only to illustrate the location of the pulley brackets relative to the flap and aileron cover ribs.

Page 212: A Note and illustration will be added to Step 66. The Note will explain and the illustration will show (see Figure A (right)) that the aft inboard corner of the flange of the hat section immediately outboard of the aileron bellcrank assembly must be tucked under the bellcrank bracket/spar flange attach angle. The hat section flanges are thin enough that this slightly unorthodox procedure poses no problem from either a construction or a structural standpoint.

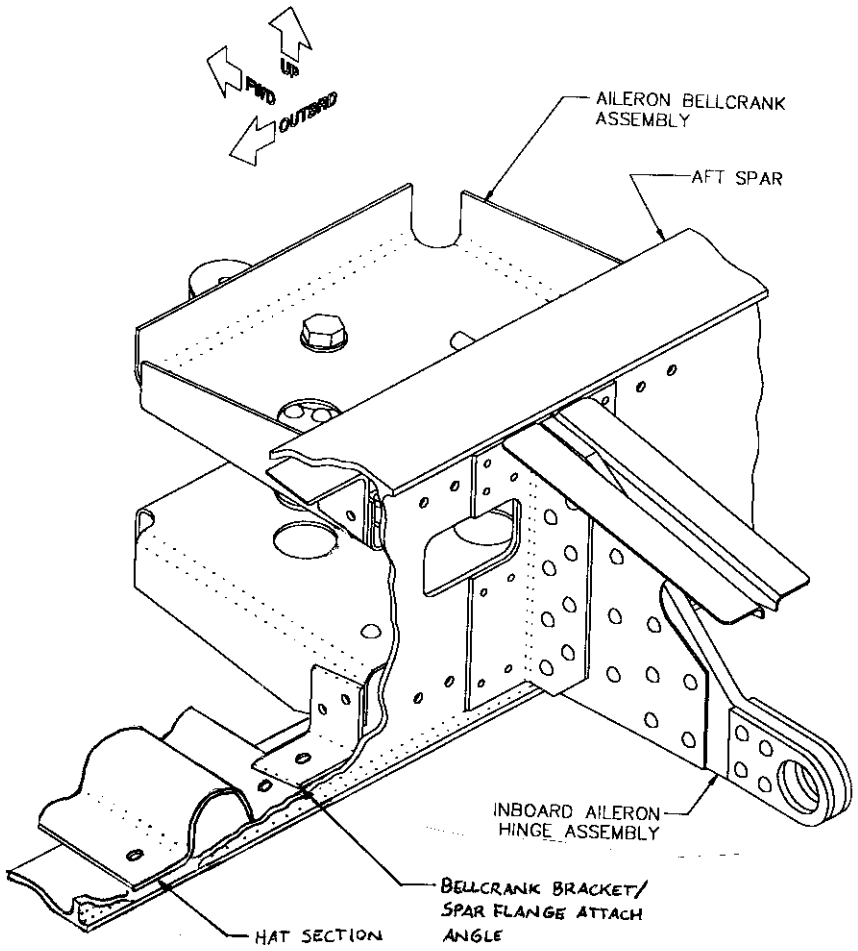

Figure A: Placement of Hat Section Relative to Bellcrank Bracket/Spar Flange Attach Angle

Section VII: Aileron and Flap Assemblies

Page 73: Figure 46 will be revised to eliminate the lower-surface skin cutout shown around the flap deployment arms. This cutout does not exist.

Section VIII: Fuselage Assembly

Page 1: The Part No. for the "Vertical fin spar" (Key No. 2) will be changed to 101-00011**-03**. (Dash 01 spars supplied in early kits are still serviceable parts.)

Page 21: Contrary to the Note in Step 9, Figure 6 shows a **right-hand** fitting. It will be changed to show a left-hand variant.

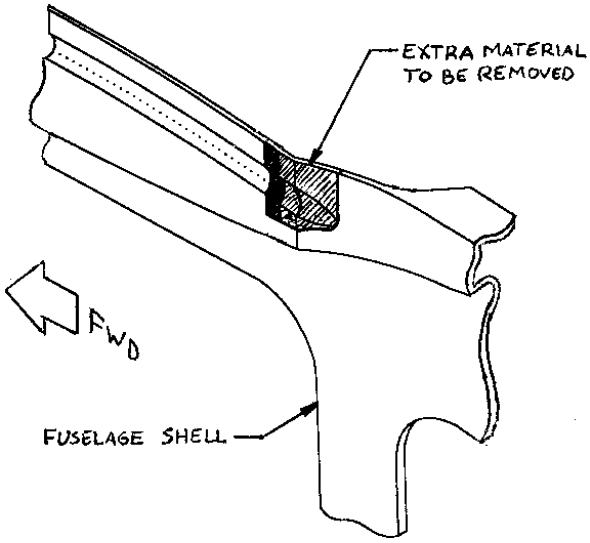

Figure B: Cutting the Aileron and Flap Cable Clearance Slot

Pages 28–29: The text of the second paragraph (including the Note) on Page 28 will be changed to call for cutting away more of the fiberglass fuselage shell than is currently specified. Specifically, the cutout for the **aft** lug of the alignment jig will be extended **aft to the end of the pre-molded depression in the shell** in order to accommodate the flap and aileron control cables. (Even more of the shell will be relieved later when the top-deck hatches are fitted.) Figure B (left) is a thumbnail view of the change that will be made to manual Figure 13 on Page 29.

Pages 50–51: The text of Step 22 and Figure 30 will be changed to eliminate the instruction to use the hole in the seat-track attach tab as a reference for determining the fuselage centerline. Experience has shown that this tab is not always held precisely on the centerline. Instead, find the centerpoint of the bottom cross-tube shown in Figure 30 by measuring between the tricycle main gear sockets.

Page 117: Figure 80 will be changed to show trimming **1/4"** off **each** end of the lower elevator bellcrank bracket rather than 1/2" off one end, as shown. The latter procedure throws the pre-drilled bellcrank pivot hole out of alignment with its counterpart in the upper bellcrank bracket.

Page 124: A Note will be added to Step 68 discussing the positioning of Bulkhead D relative to the foam cutout in the fuselage shells. We have progressively refined the size and location of this cutout to better coincide with the placement of Bulkhead D. However, we are still receiving reports that the bulkhead, when positioned as instructed in Step 68 and Figure 87, rides up on the foam core portion of one or both fuselage shells. Ideally, the laminates used to bond Bulkhead D in place should have a so-called "edge band" of at least **1/2"**, as shown in Figure C (next page). If necessary, and if the builder so desires, he or she can relieve the foam core on one or both sides of the bulkhead to achieve this edge band. However, **this is not strictly necessary**. **In no event should the position of Bulkhead D be altered in order to achieve better alignment with the existing foam cutout.**

Page 125: The text of the last sentence in Step 68 will be changed to specify cutting the Bulkhead D drain hole for **tricycle-geared GlaStars only**. In taildraggers, the forward tailwheel spring attach bracket (installed in "SECTION IX: SYSTEMS INSTALLATION") will cover this hole location. Alternate instructions for taildragger builders will be added to "SECTION IX" (see below).

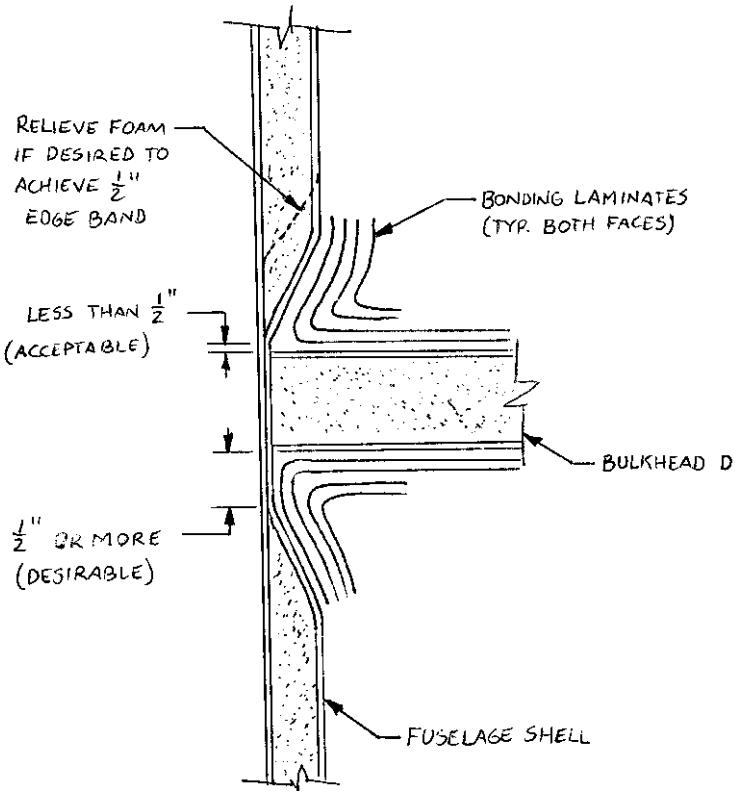

Figure C: Bulkhead D Edge Band

Pages 130 and 131: The finished width of the aft attach flange for the forward inter-bulkhead shearweb will be changed from 1" to **1-1/2"**. All references in the text of Step 70 and in Figure 97 to a 1"-wide laminating form or finished flange will be changed to reflect the new dimension.

Page 134: The forward inter-bulkhead shearweb must be shortened at the aft end by approximately **3/8"** and the three aft bolt holes moved forward accordingly compared to what is currently shown on the Rev. A inter-bulkhead shearweb template (P/N 040-00105-01). This shortening is necessary to allow the shearweb to be removed and replaced with the horizontal stabilizer attach bracket mounted to Bulkhead D.

Page 147: In the sixth line of the first paragraph of Step 80, the word "Alternating" will be eliminated.

Page 147.3: The text of the third paragraph on the page will be changed to specify drilling the drain hole forward of Bulkhead E for **tricycle-geared GlaStars only**. Because taildraggers receive some extra laminates in this area (see below), the drilling of this hole should be delayed.

Regarding these extra reinforcement laminates, the current Step 94 of "SECTION IX: SYSTEMS INSTALLATION" will be moved in its entirety to become a new Step 80.1 in "SECTION VIII: FUSELAGE ASSEMBLY." Installing the reinforcement laminates for the aft tailwheel spring attach brackets is more easily accomplished before the aft inter-bulkhead shearweb attach flanges are fabricated in Step 82.1.

Also, text will be added at the very end of the new Step 82.1 specifying that a **1/4"** drain hole be drilled after the DBM reinforcement laminates have cured. The hole should be on the aircraft centerline and **angled aft** at approximately 45° to Bulkhead E directly through the intersection of the bulkhead and the fuselage floor. This angle serves to keep the hole clear of the aft tailwheel spring block, which will be installed in a subsequent step.

Section IX: Systems Installation

Page 2: The Part No. for the "Flap handle ratchet plate" (Key No. 55) will be changed to 602-02001**-03**. (Dash 01 ratchet plates supplied in early kits are still serviceable parts.)

Page 5: The bolt identified by Key No. 134 will be changed to an AN5-**22**A. (The AN5-23A bolts supplied in early kits are still serviceable.)

Page 8: The Part No. for the "Steering spring kit" (Key No. 221) will be changed to 091-01500**-02**. (Dash 01 spring kits supplied in early kits included oversize springs, which were all recalled and replaced pursuant to GlaStar Service Bulletin 27.)

Page 28: The notation "**2 places**" will be added to the 70° bend call-out in the lower panel of Figure 8. The perspective of the drawing makes it slightly unclear that **both** sides of the rudder pedal need to be bent.

Page 144: Text will be added to the Note to make clear that the NAS42DD8-27 and -58 aluminum spacers (Key Nos. 165 and 167, respectively) are deliberately supplied slightly over-long to provide some spanwise adjustability in the position of the aileron, as described in the existing Note text. As a result, one or both spacers may need to be shortened somewhat prior to installation. Use a file or a belt sander.

Page 161: Figure 88 will be changed to refer to **5/16"** X 1" polyethylene bar stock rather than 3/8" X 1" stock.

Pages 190 and 191: A Note will be added to the text of Step 56 and Figure 105 specifying the alternate hole diameters required by S-H's optional flush fuel caps. The plain flush fuel caps (P/N 201-40003-01) require **3"** holes, and the locking flush fuel caps (P/N 201-40004-01) require **2-1/2"** holes.

Pages 194 and 195: The first sentence of the last paragraph on Page 194 will be changed to read as follows: "As shown in Figure 108a drill the central **#10** hole for the nutplate between the first and second rivets **outboard of the root rib** in the forward-most row through the lower spar flange." Figure 108 will be changed to show the root rib in place and the nutplate shifted one pair of rivets outboard from its currently illustrated location.

Page 212: The gear leg bolts called out in the second paragraph of Step 68 will be changed to AN5-**22**As. A Note will be added specifying that early kits included AN5-23As.

Page 214: A Note will be added advising builders who received AN5-23A gear leg bolts to use one extra AN960-516 washer under each nut.

Page 263: Text will be added at the very end of Step 91 specifying that a **1/2"** drain hole be drilled through Bulkhead D on **each side** of the forward tailwheel spring attach bracket. The holes should be kept as close to the bracket and the fuselage floor as possible.

Page 268: Step 94 will be moved in its entirety to a new Step 80.1 in "SECTION VII: FUSELAGE ASSEMBLY."

Section X: Final Assembly

Page 1: The Part Nos. for the "Forward upper door latch, left" and "Forward upper door latch, right" (Key Nos. 27 and 28, respectively) will be changed to 101-16001**-03** and **-04**, respectively. (Dash 01 and -02 latches supplied in early kits are still serviceable parts.)

Also, the Part No. for the "Center door latch, left" (Key No. 29) will be changed to 101-16003**-13**. (Latches with smaller dash numbers supplied in early kits are still serviceable parts.)

Page 2: The Part Nos. for the "Center door latch, right" and the "Forward control cable cover angle" (Key Nos. 30 and 59, respectively) will be changed to 101-16003**-14** and 805-02003**-03**, respectively. (Latches and angles with smaller dash numbers supplied in early kits are still serviceable parts.)

Also, the firewall template (Key No. 62) will be eliminated from the parts list.

Page 16: Reference to the firewall template will be eliminated. Instructions to make a custom template from a large sheet of cardboard by tracing the outline of the fuselage shell opening will be added. A Note will also be added explaining that the pre-drawn firewall template was eliminated due to considerable unforeseen variation in the shape of GlaStar fuselage openings in the field.

Page 26: The text of the second Note will be changed to read as follows: "Wherever practical, the firewall should be pulled back tight against the cage tabs. In a few places, however—most likely including those tabs nearest to the engine mount bushings—there may be a persistent gap between the cage tab and the firewall. Use AN960-8 **washers** [149] as spacers between such tabs and the firewall as necessary to avoid kinking or excessively bending the firewall."

Page 44: A Note will be added at the beginning of Step 15 specifying that the **-01** forward control cable cover halves (P/N 805-02003-01) supplied in early kits are over-wide and require trimming to fit the cage truss. Both covers should be trimmed to a width of **4-3/8"**.

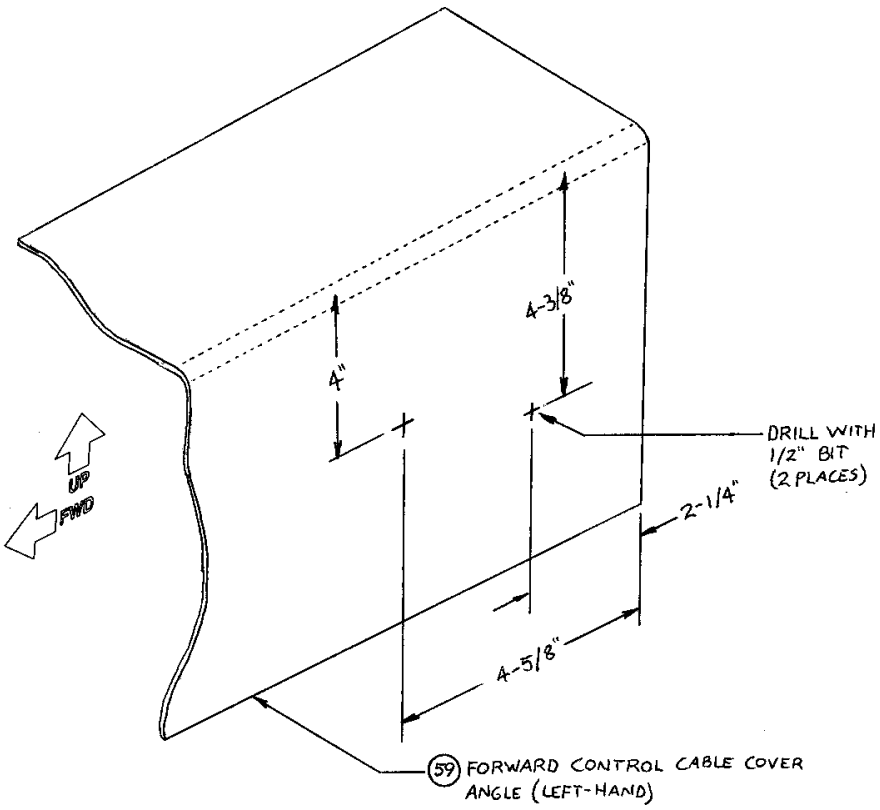

Figure D: Additional Bolt Clearance Holes Required in Left-Hand Forward Control Cable Cover Half

Additionally, text will be added to Step 15 and Figure 14 will be revised to show that two additional holes need to be drilled in the **left-hand** forward control cable cover half to accommodate bolt heads from two pulley groups inside the central truss. These bolt heads protrude left beyond the edge of the truss. Figure D (left) gives **approximate** dimensions for these holes. Double-check these locations before drilling **1/2"** holes for these bolt heads.

Page 132: A Note will be added suggesting that, if the builder intends to switch back and forth between landing gear types, the brake line hole through the foam spacers should be enlarged to accommodate the fitting nut on the caliper end of the brake line.

Page 133: Text will be added to specify that the self-tapping screw must be installed **aft** of the gear leg to insure that it does not hit the leg.

Page 155: A Note will be added to Step 74 specifying that, as on the lower side, the aft inboard corner of the flange of the hat section immediately outboard of the aileron bellcrank assembly must be tucked "under" (above, relative to the aircraft) the bellcrank bracket/spar flange attach angle. A cross-reference back to Figure A (above) will be provided.

Page 207: In the text of Step 105 and Figure 105, the call-out for **one** of the AN960D10L thin aluminum washers at each hinge will be replaced with a call-out for a standard-thickness AN960D10 washer. With two thin washers, the nut can bottom out on the threads of the AN3-6A bolt before the assembly becomes properly tightened.

Page 283: In Figure 158, the notation "2 places" will be eliminated from the call-out for the AN960-10L thin steel washer (Key No. 146). Only one such washer is used at each mounting tab.

Page 287: A Hint will be added suggesting that the **18"** length of the panel braces be verified for the builder's own GlaStar before cutting the angle stock. We have had one report that the specified length is too short by about 3/4".

Page 313: The wording of the Warning will be changed to make the installation of close-out bulkheads in the wingtip fairings **recommended** rather than required. It **is essential** that all wingtip light wiring be secured well clear of the aileron counterweight, but there are other acceptable ways to accomplish this. Additionally, the reference to the Nav/Strobe Light Option Instructions will be eliminated.

Page 392: In the legend for the formula at the top of the page, an entry will be made as follows: "LW_{fwd} = the total moment of the aircraft at forward limit check."

Correction to the ANOR of 8/25/97

Page 1: The second revision from the top of the page specifying a Note to be added to "SECTION V: ELEVATOR ASSEMBLY" applies to **Page 44**, not Page 3 as specified.