BUD NOSEN MODELS

GERE SPORT

BUILDING INSTRUCTIONS

Note: Before starting assembly make sure you understand plan fully. Refer to material list before cutting unmarked stock. Plans will stretch up to 1/2" spars etc. are in fact four feet long. On the plan they may measure 1/2" longer.

FUSELAGE:

Begin body construction by gluing together FT 7 from 1/4 X 1/2 stick stock. Build over plan. Glue together FT 6 and FS 6, and FT 5 and FS 5 parts. Note drawing showing assembly of FT 3 and FS 3, FB 3 parts. Make sure holes in FS and FB3 are to the inside. Epoxy together. During assembly, make sure FB remains on the bottom. Make sure holes in FS parts are 4" from top. Build up FT 4 and FS 4 parts the same way. Make sure holes in FS parts are 4" from top. When formers are dry, pin upside down on center over top view, along with F 2 and upper 1/4 x 1/2 cross members. Note body planking isometric drawing. Begin planking in numerical order. When side planking is complete, trim down as shown in isometric. Add tail post. Glue or contact cement in wing saddle doubler, and splice doubler. Cut notches in FT 5 and FT 6 (bottom) and install short stringer. Plank bottom of fuselage from FT 5 to tail skid ply piece with 1/8 sheet. Add a 1/4 x 1/2 stringer place with grooves out. Insert main axle into groove shown as well as rear support in groove shown. Epoxy FL 2 over gear and to FL 1. (For ease of repairs to landing gear, FL 2 can be screwed to FL 1 for easy removal) Plug shock strut parts into holes in FB parts and lock in place with 3/16 collars. Bind gear together with soft wire and solder. Bend sheeting and pull nose together gluing in place 1/16 doublers. Glue a 1/4 x 1/2 stringer between F 2 and FB 3 at bottom. Plank with 3/16 sheet as shown. Allow entire assembly to dry quite well before removing body from top view.

Remove from plan and add F 1 and 1 x 2-3/4 x 8 blocks. Install cabane wires at this time (4). Plug ends with 1/2 inch bends into holes in FS 3 and FS 4 parts. Wires must extend over corners as shown, they must all be the absolute same height, so as not to change wing incidence. Epoxy 3/8 x 3/4 x 3-15/16 grooved ply blocks in place over wires as shown. Add die cut top formers. (Mark formers as shown) Sheet area between F 1 and former C with 1/8 balsa. Add 1/8 x 3/8 rear stringers. Carve headrest to cone shape and fit to body. A small stringer along bottom edge will be helpful when covering. Decide if you are going to use a dummy radiator. If so use 3/32 x 3/4 ply provided and build according to plan. Bend tailskid to shape and install along with die cut ply part. (From center of F1 unmarked) Pour epoxy over top of wire to hold in place. Check 3 view proved and add detail dummy engine etc., as you see fit.

STAB, ELEVATORS, FIN AND RUDDER:

Build over a flat surface with parts provided and sand to shape as shown. Install horn mounts flush with surface and epoxy well. Tailplane surfaces are quite large, so 3/16" dowels are used for support. The two 3/16 x 16 dowels are used for support. The two 3/16 x 16 dowels run from dot on upper fin to outer dot on stab. Glue the 12" dowels from inner dot on stab to dot on lower tail post. For the larger ignition type engines now available we would recommend covering all tail surfaces with 1/16" balsa sheet.

WING:

Both upper and Lowe r wings are built from the same plan. THEY ARE NOT IDENTICAL!!! Understand the plan and mark ribs as shown before starting assembly. Separate WB (bottom wing parts) and WT (top wing parts) Note that the top wing has no dihedral and the bottom wing has. Dihedral braces differ. Top wing only has WT 3 cabane mounting parts. WB 1 and WT 1 center ribs differ. The lower wing has ailerons and the top does not. (Ignore ailerons parts when building top wing) The upper wing is 5 3/4 longer than the bottom wing. (Total)

We have found the following procedure to be the fastest method in our wing assembly. Mark wing ribs according to plan. Separate WB and WT parts. Work on a flat surface. Protect plan with wax paper.

Start with upper wing, right hand panel. Pin 2 spruce spars down over plan, using a rib as a spacing guide~ Glue all WT ribs in pa1ce. Add upper 2 spars. Glue balsa leading edge spar into leading edge. (If leading edge is warped, pin down straight on a flat surface. Then glue in spar. Allow to dry; and remove from board) Glue leading edge in place. At this time allow glue to dry, then remove wing from board. Turn wing over, and epoxy WT 3 parts into place. Glue 3/32 x 2 leading and trailing edge sheet into place--bottom side only. Glue 3/32 center sheet in place--bottom side only. Glue bottom side 3/32 cap strips in place. Turn wing right side up and pin down on a flat surface again. Install WT 4 and WT 5. Cut 1/32 ply web material and install webbing. Glue all top sheet and caps in

position. Cap end of panel with scrap 1/8 or 1/4 scrap sheet. Build left wing panel in the same manner. The left panel must be built right on to the right panel as the previous installation of the WT 3 parts and the dihedral braces will not allow the fitting of the two panels together later.

Build the lower wing in the same manner as the upper. Note that the lower wing has 1.75 inches under each tip rib. There are not WT 3 parts in the lower wing. Install ailerons, building as shown. Make sure each panel is one rib shorter than the top wing. Cap tips with scrap 1/8 or 1/4 sheet when wing is complete. (Cap ailerons also) Lower wing is held in place by rubber bands. Experienced builders will bolt in place. Upper wing is held in place by cabane struts which plug into 5/32 nose gear type bearings as shown. Install these bearings after wing is complete. Check alignment carefully. If the model is going to be flown in standoff scale, check. 3--view, and add detail as required or skill dictates. N-Struts should be added for contest work and or large engine (2 cu. in.) use.

FLYING:

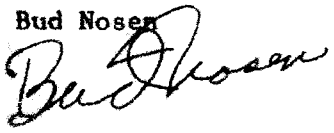
Adjust aileron linkage for 2 inches up and 1-1/2 inches down. Use as much rudder throw as available. 1/2 inch up and 1/2 down on elevators. Model requires 3/8 to 1/2 inch down trim for level flight. Experienced builders may wish to lower trailing edge of stab 3/16". This will allow for level flight with no down trim in elevators. With a .60 size hot engine the model will take off in 15 to 20 feet on tar. Flight will be very slow and in a wind of over 8 MPH flight will be marginal.

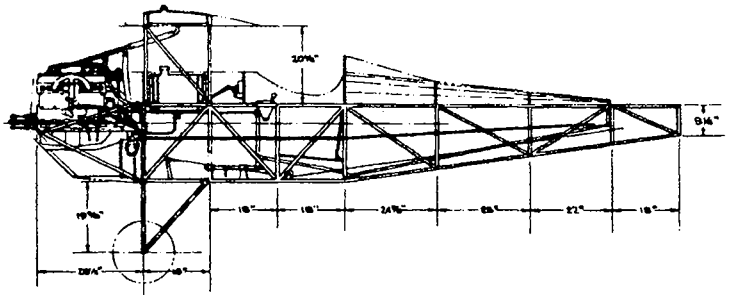
ADDITIONAL NOTES:

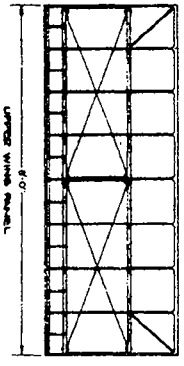
Since our original design of this model ~ 1975 many new developments have come about for the large model. For the most realistic type flight we would suggest the use of Quadra or Evra type gas type engines. Their economy of operation and long life would seem to be a sensible type approach with today's higher glow fuel prices. For the use of the larger type engines we would suggest doubling the firewall to 1/2 inch thick. Sheet all tail surfaces with 1/16" balsa. Glass the center section of both wings, and make the bottom wing bolt on. We would also suggest having the Quadra flywheel modified to reduce vibration. We can furnish the address for the above mod upon request. For modelers not interested in scale ailerons can also be added to the top wing for a spectacular increase in roll rate.

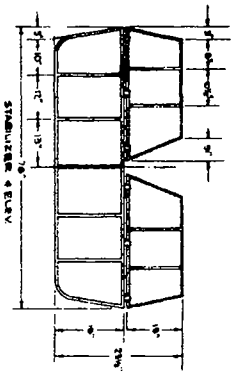
As of this date there are no reported problems with building or flying the Gere. Because of its gentle flying habits and ease of construction the Gere has turned out to be one of our more popular models and has proven to be a show stopper whenever flown in public.

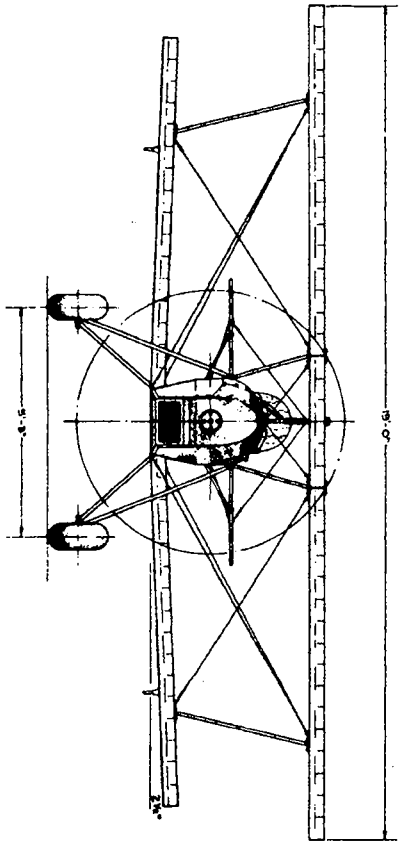
Bud Nosen

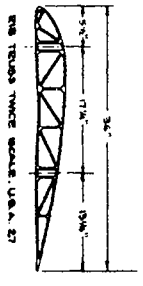


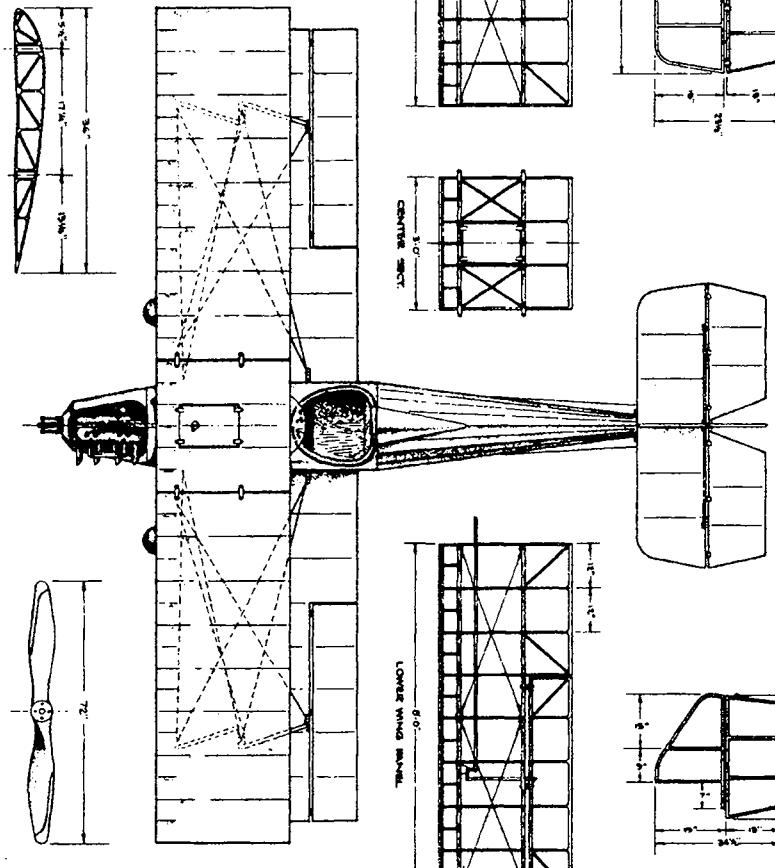


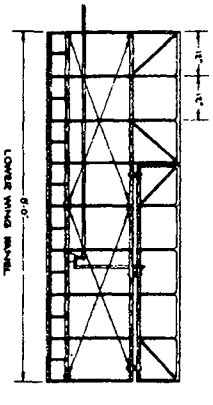


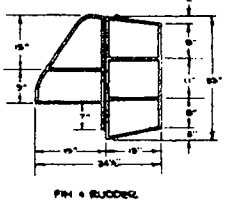


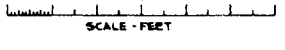


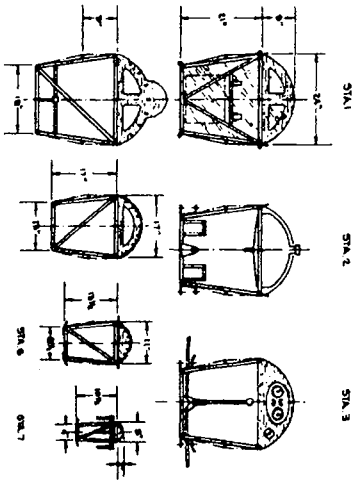


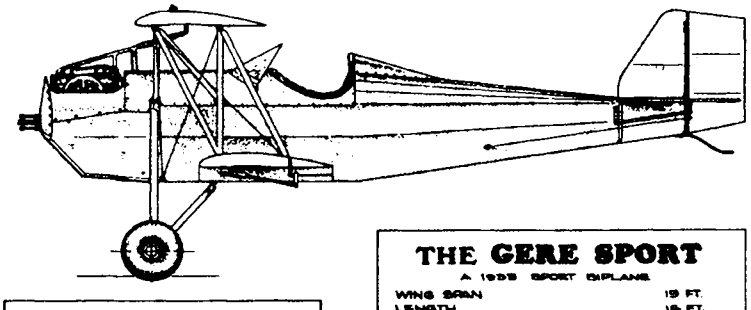












AERODYNAMIC DATA	
DIHEDRAL - LWR WING ONLY	2½°
INCIDENCE - LWR WING ONLY	1½°
STAGGER	17½"
AIRFOIL	U.S.A. 27
C.G. LOCATION	L.E. LOWER WING

THE GERE SPORT

A 1929 SPORT BIPLANE

WING SPAN	19 FT.
LENGTH	14 FT.
WING AREA	111 SQ. FT.
EMPTY WEIGHT	600 LBS.
GROSS WEIGHT	875 LBS.
WING LOADING - GROSS PER SQ. FT.	7.88 LBS.
CRUISE SPEED CHEV. 4 19 H.P.	50 M.P.H.
CRUISE SPEED FORD 'A' 40 H.P.	60 M.P.H.