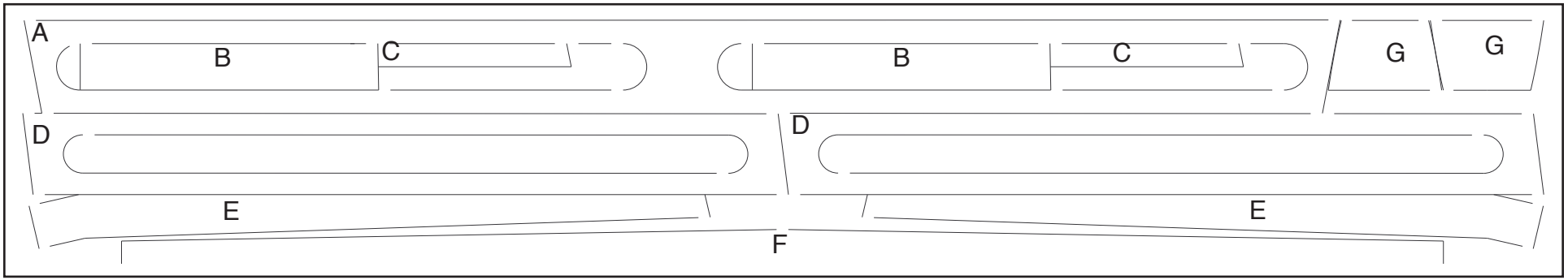
1971 ESTES SKYDANCER
PARTS AND EXTRA DOCUMENTATION

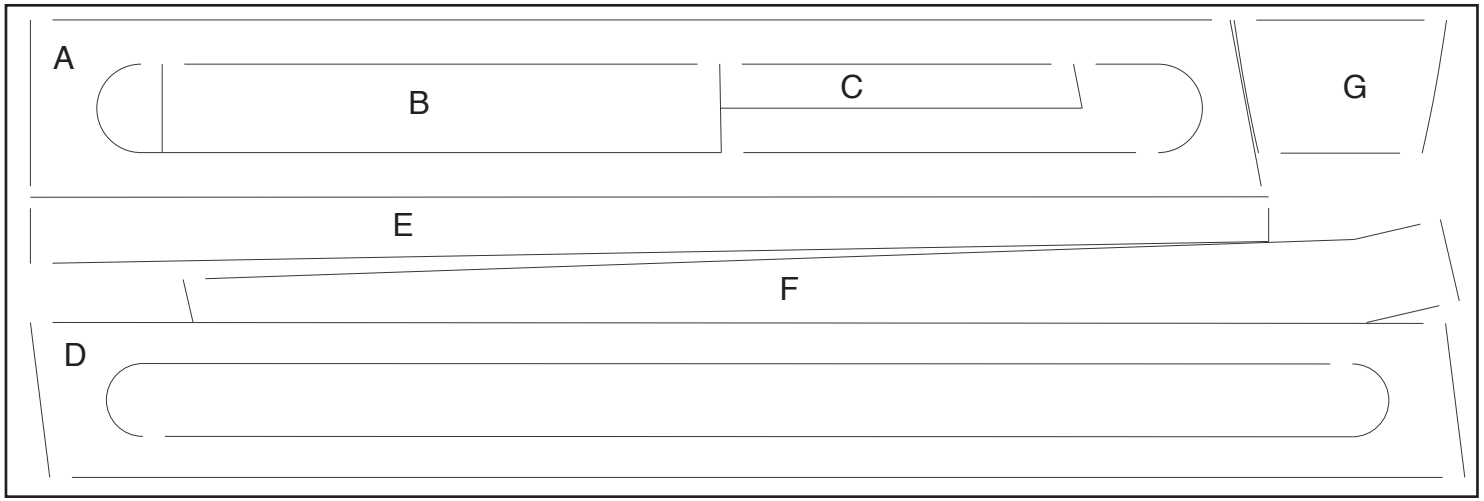
1/4" Balsa long sheet



A. Elevator
B. Stabilizer root
C. Stabilizer tip
D. Aileron
E. Stabilizer leading edge
F. Stabilizer trailing edge
G. Top blocks between F1 and F2

Notes: The two pieces of the stabilizer trailing edge have been combined into one. There are two alternate designs for this sheet. I haven't tried laser cutting this sheet because I don't have access to a laser cutter this wide.

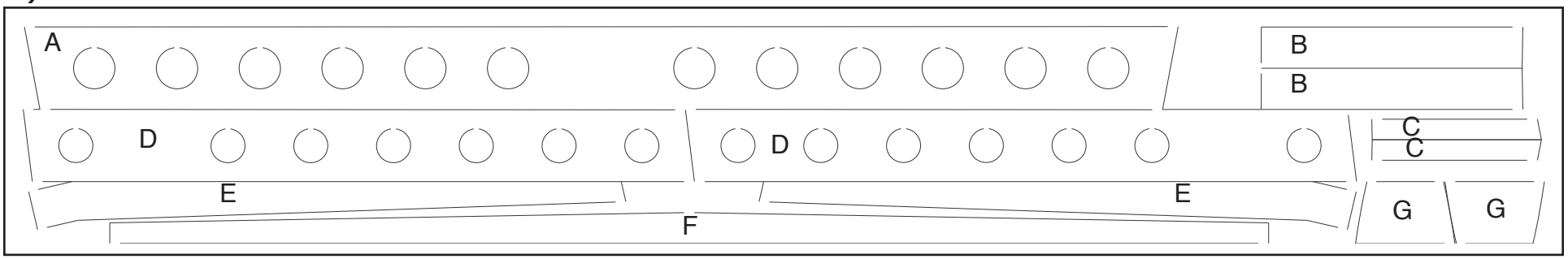
1/4" Balsa alt1, short sheet



A. Elevator
B. Stabilizer root
C. Stabilizer tip
D. Aileron
E. Stabilizer leading edge
F. Stabilizer trailing edge
G. Top blocks between F1 and F2

Note: For not so long laser cutters. Make two.

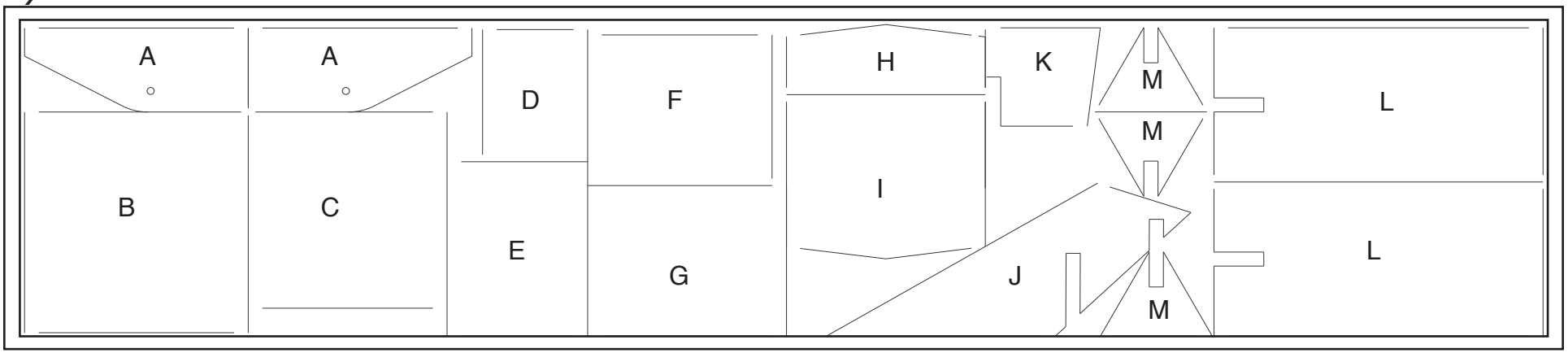
1/4" balsa alt2



A. Elevator
B. Stabilizer root
C. Stabilizer tip
D. Aileron
E. Stabilizer leading edge
F. Stabilizer trailing edge
G. Top blocks between F1 and F2

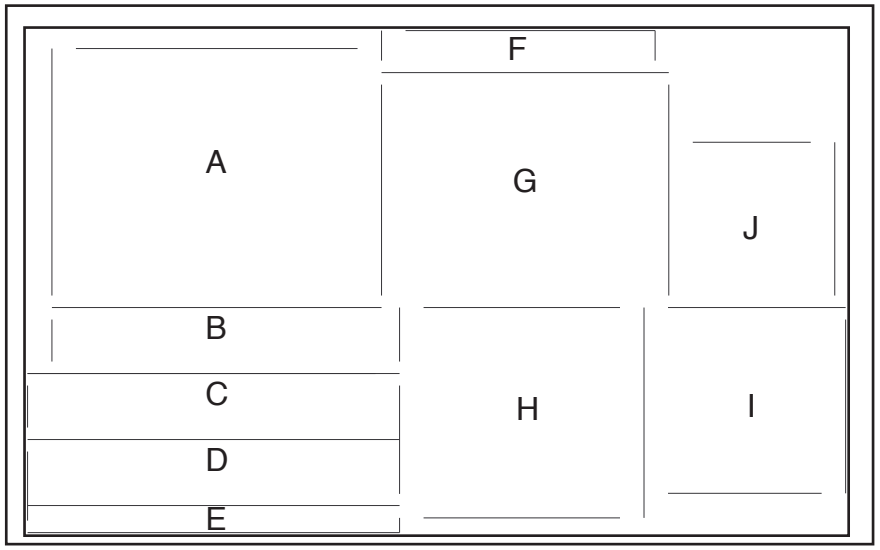
Notes: The two pieces of the stabilizer trailing edge have been combined into one. This is an alternate design for sturdier ailerons and elevator. The idea is that the few extra grams are offset by 21st Century electronics being over four ounces lighter than the Apollo era electronics.

1/8" Balsa



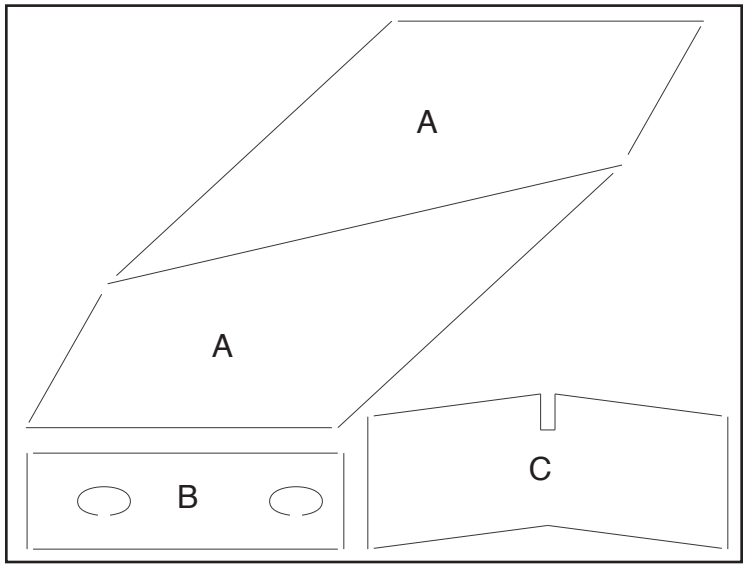
A. Bell Crank Platform
B. Servo platform in wing
C. Fuselage servo platform
D. F1
E. F2
F. F3
G. F4
H. F5
I. F6
J. Xerclod center piece
K. Root rib dihedral angle jig
L. Dihedral jig
M. Jig feet

1/16" Balsa



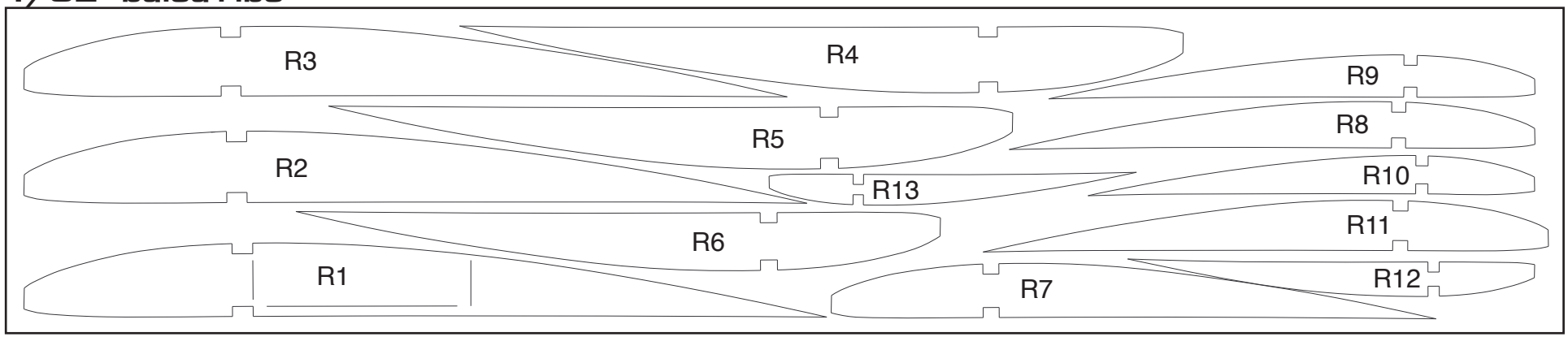
A. F7
B. Canopy former second
C. Canopy former third
D. Canopy former fourth
E. Canopy former rear
F. Canopy former front
G. F8
H. F9
I. F10
J. F11

1/16" plywood



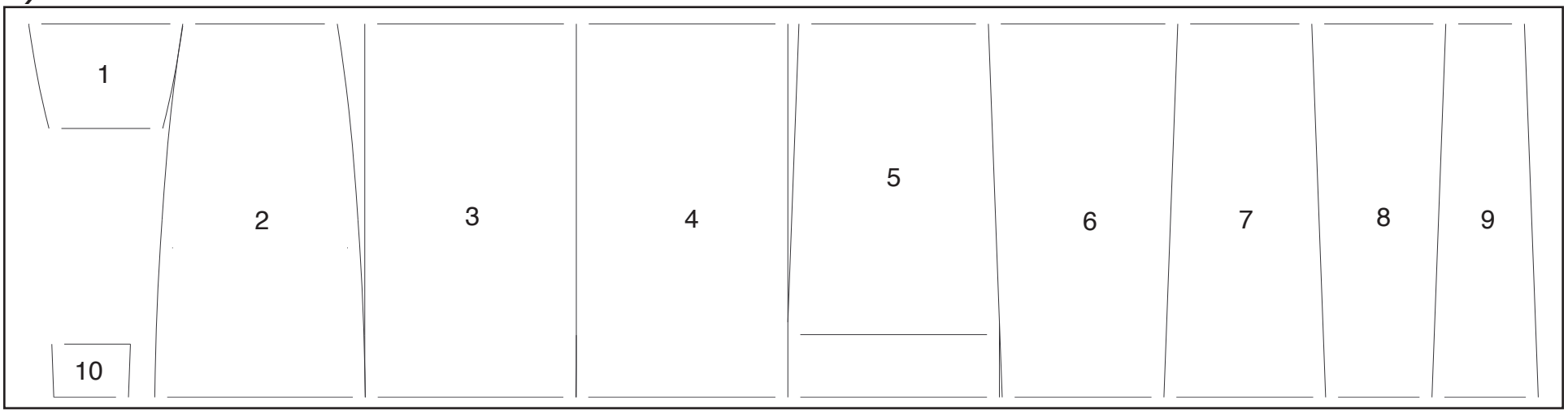
A. Xerclod outer doubler
B. Pod platform
C. Dihedral brace

1/32" balsa ribs



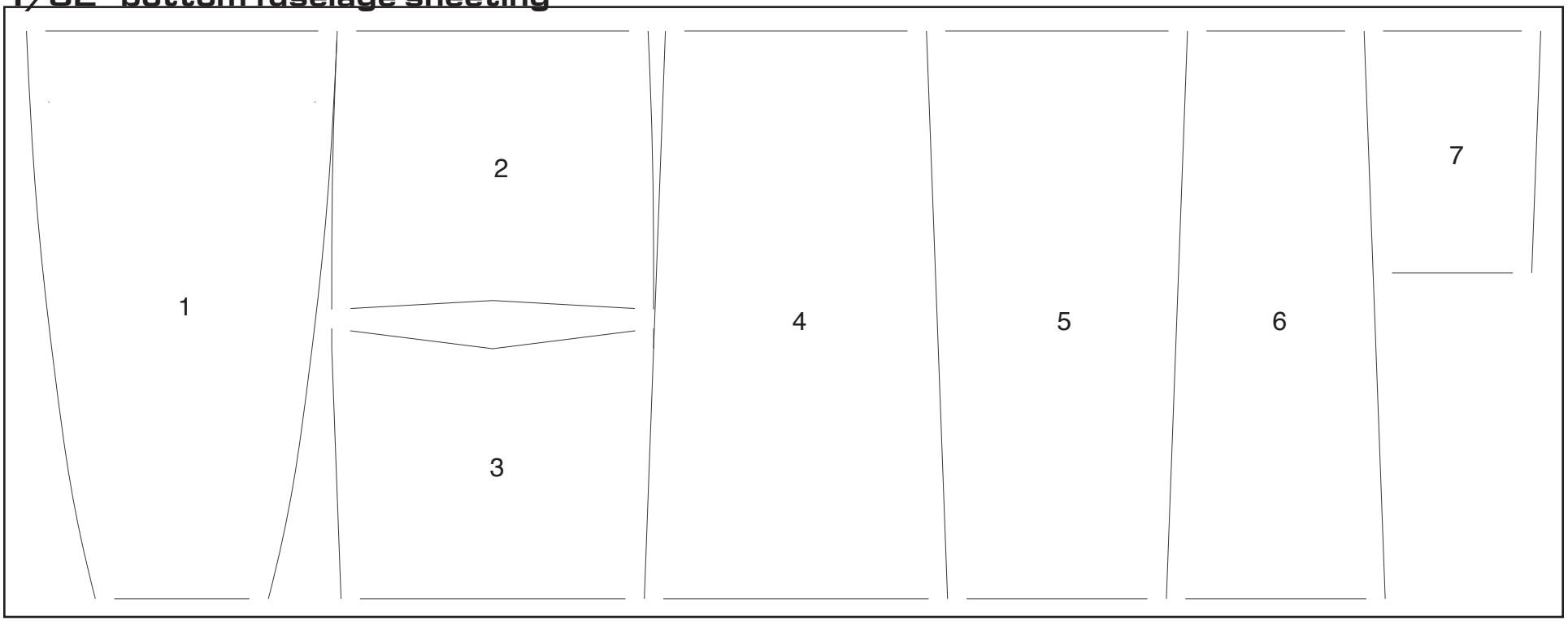
Note: If I had to do this again, I'd make the ribs out of 1/16" thick balsa instead of ridiculously frail 1/32" balsa. Any weight gained is more than offset by the much lighter electronics.

1/32" balsa1



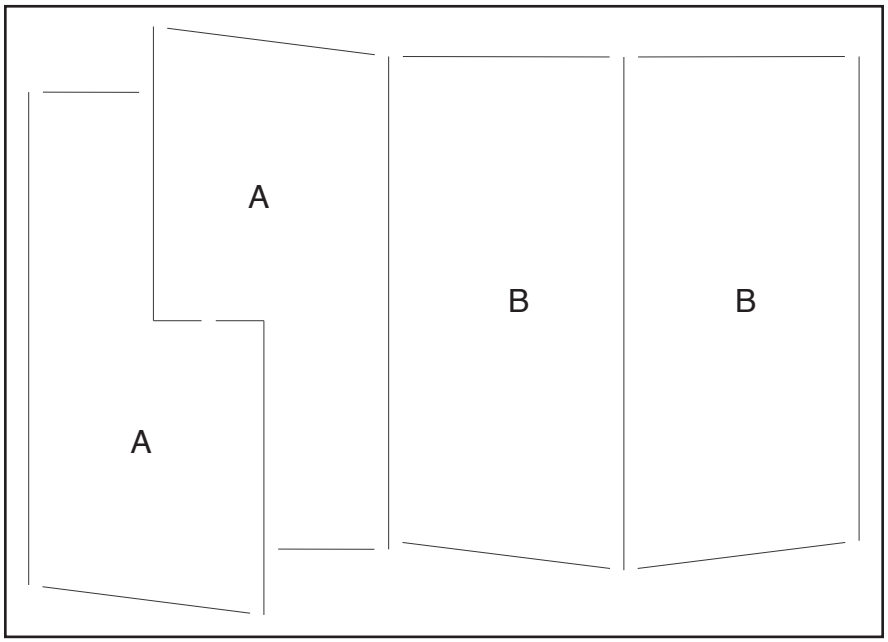
1-12 top sheeting panels are in numerical order from front to back. Note that 2 through 5 are for the top of the canopy.

1/32" bottom fuselage sheeting



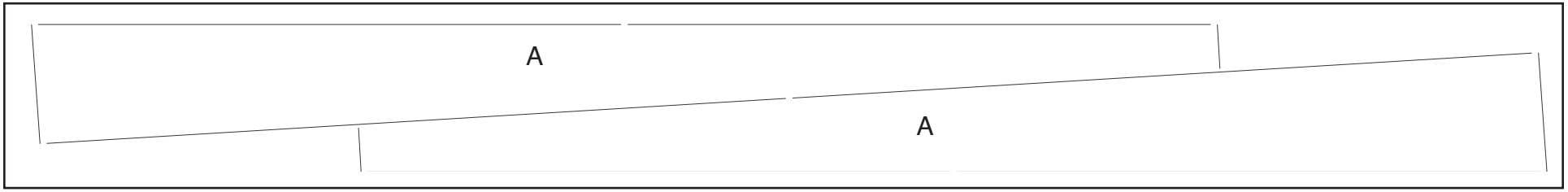
1-7 bottom sheeting panels are in numerical order from front to back. Note that 2 is before the wing and 3 is behind the wing.

1/32” balsa3



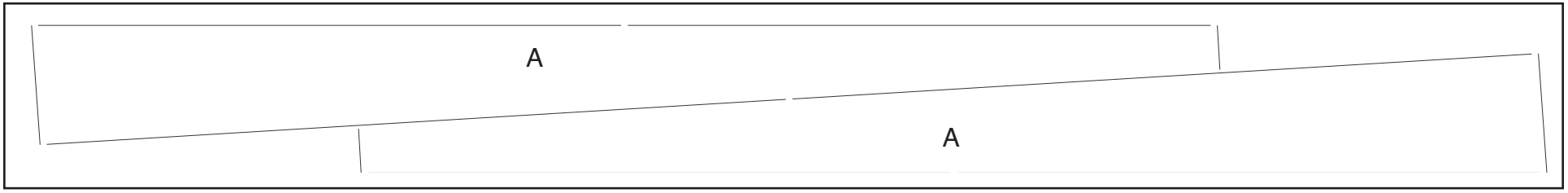
A. Root sheeting top
B. Root sheeting bottom
Note: This is based on 6” wide 1/32” balsa sheets which have since become a scarce commodity. Perhaps glue two 3” wide sheets together at the edges.

1/32” balsa 4



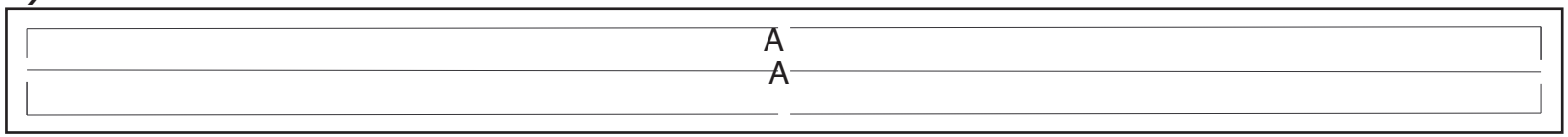
A. Top D-tube sheeting. Note: Another untried sheet wider than the laser cutter.

1/32” balsa 5



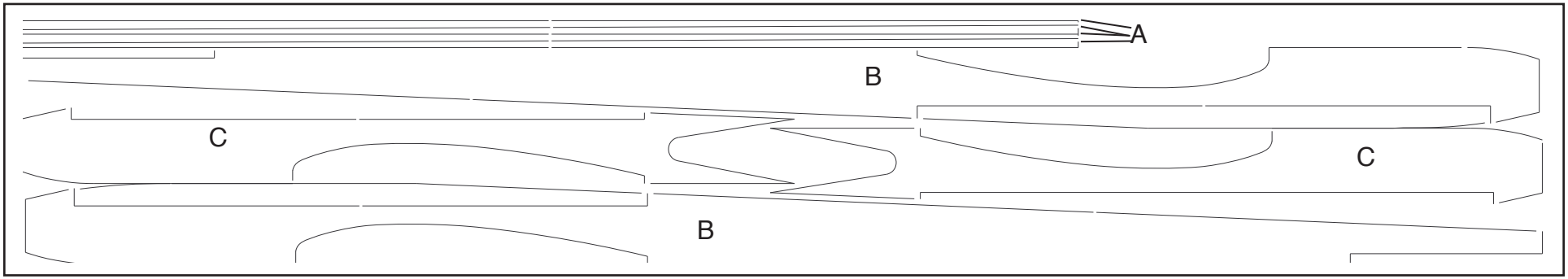
A. Bottom D-tube sheeting. Note: Yet another untried sheet wider than the laser cutter.

3/16” balsa



A. Elevator trailing edge

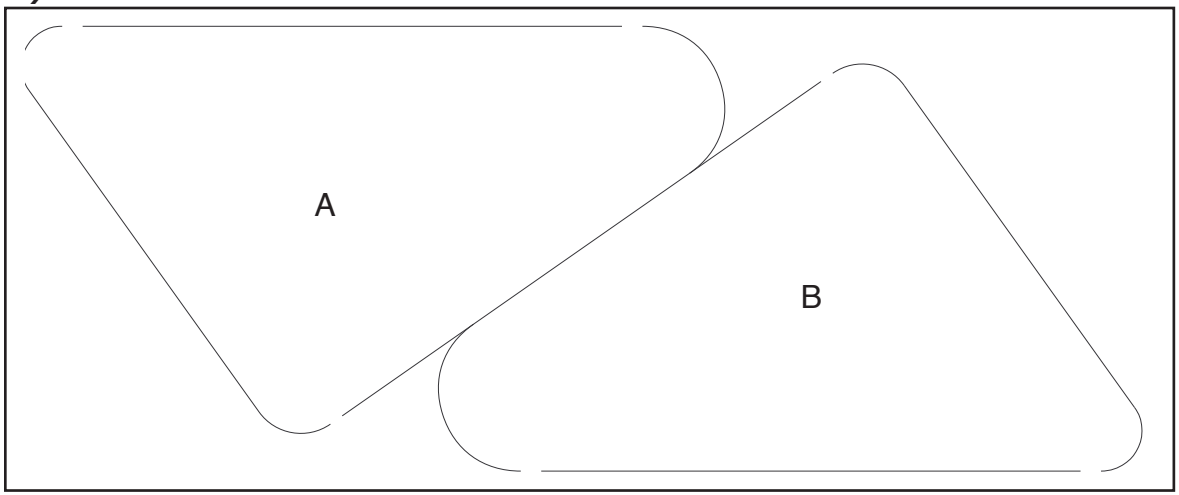
3/32” balsa1



A. Wing spars
B. Fuselage side
C. Fuselage inner doubler

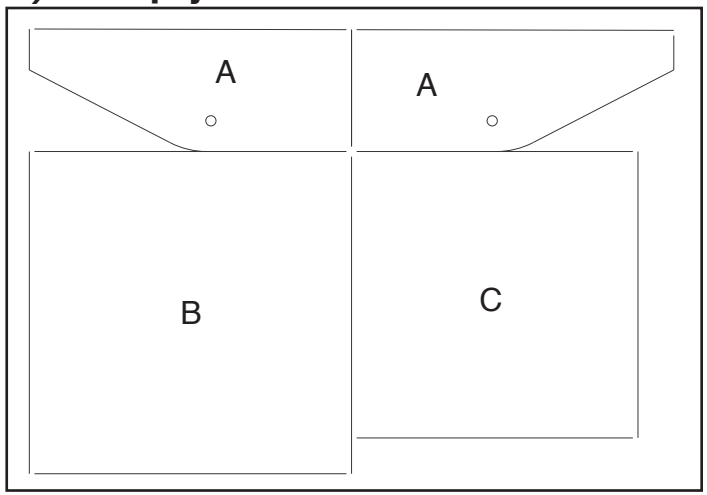
Note: Another sheet that is wider than the laser cutter.

3/32” balsa 2

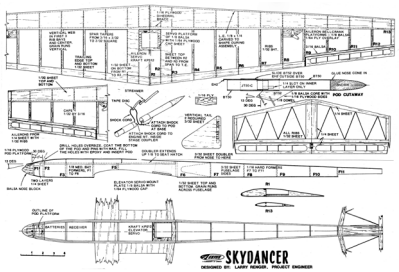


A. Rudder
B. ‘Nother rudder....

1/64” plywood



A. Aileron bell crank platform
B. Wing servo platform
C. Fuselage servo platform

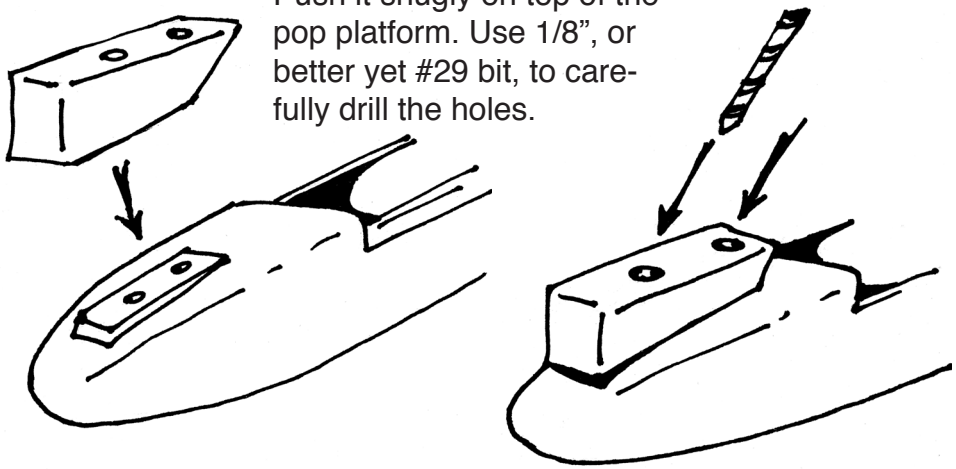


There are at least a couple of ways to print out Skydancerfullsizeplans. One is to copy it to a thumb-drive and sneakernet it down to a copy shop that handles oversized prints. Another is to utilize the print poster function in Acrobat. Print this out as tiles and paste all the sheets together.

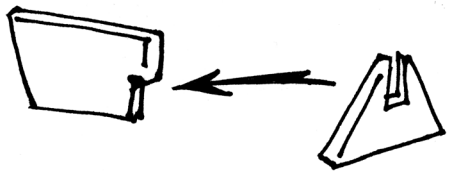
Full sized copies of the plans were given to me by the late John Carroll who was a former Estes employee and coconspirator in Holverson Designs. A few years later, I scanned the plans in a lot of little sections and then put them to together using the automerge function in Pshop on the Dual G5 Mac I had back then.

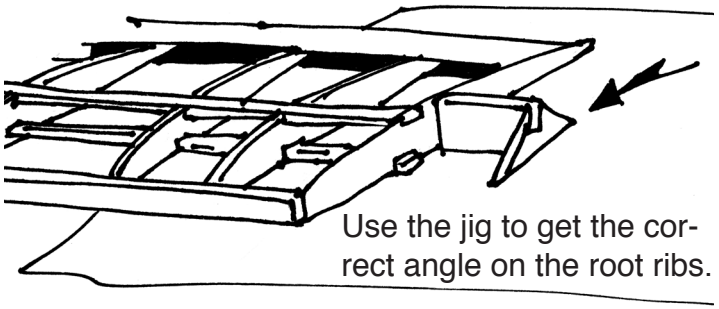
This design has been slightly Holversonized with the addition of a few jigs.

3D print out skydancerjig. Push it snugly on top of the pop platform. Use 1/8", or better yet #29 bit, to carefully drill the holes.

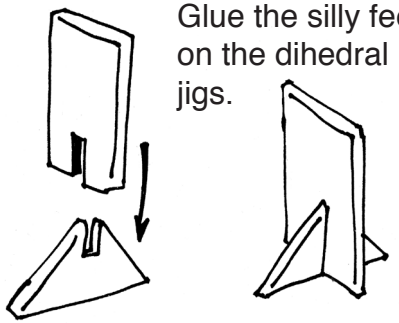


Glue the foot on the root rib dihedral jig.

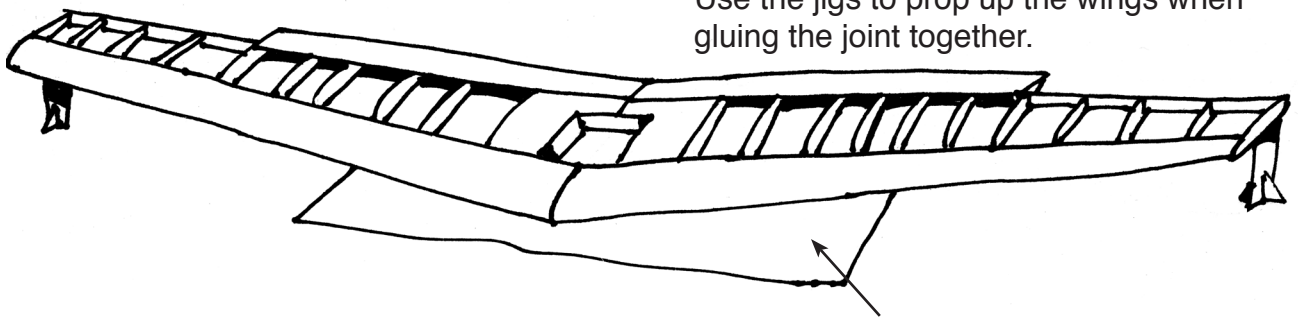




Use the jig to get the correct angle on the root ribs.



Glue the silly feet on the dihedral jigs.



Use the jigs to prop up the wings when gluing the joint together.

ALWAYS REMEMBER WAX PAPER!