

8

7

Soft Balsa 1/8" x 1/4" Leading Edge

F

W5

1/16" sq stringers bottom

W6

W4

W3

W3

A1

Split control surfaces here

A5

A2

E

A4

A4

Laminate tail group and wing tip outlines from 2 strips of 1/32" x 3/32" balsa.

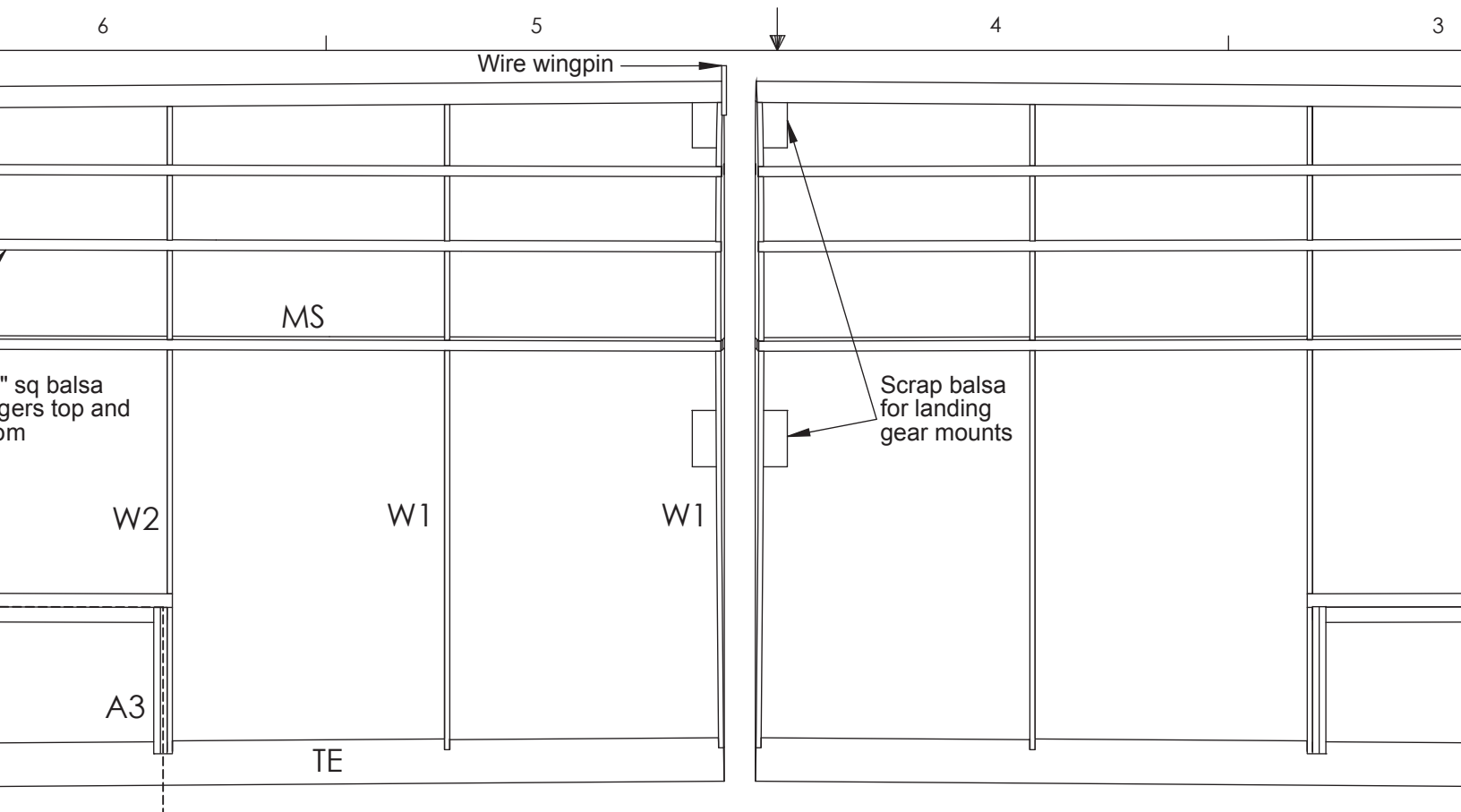
D

H1

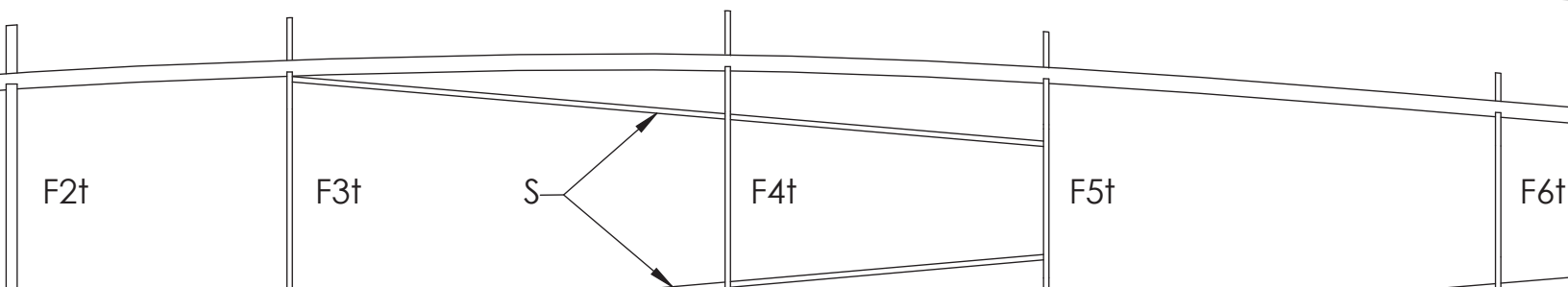
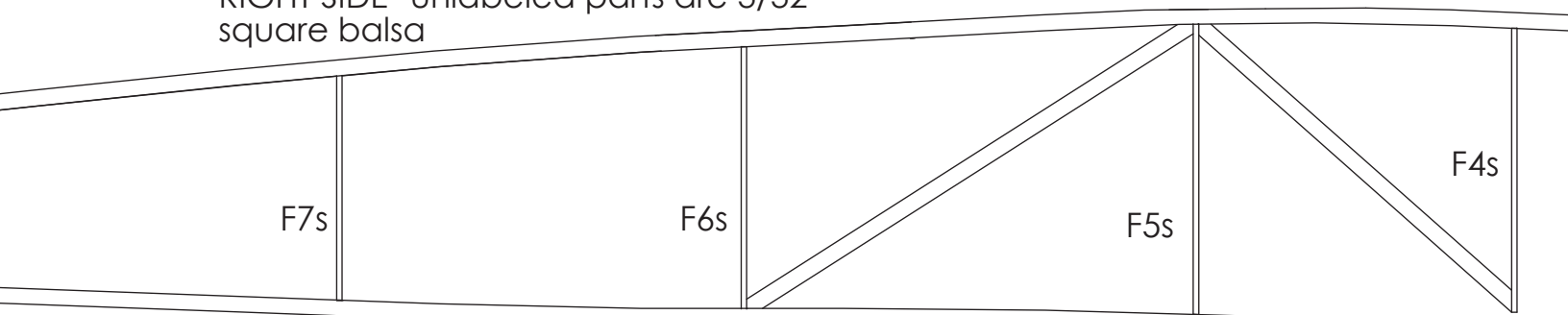
H3

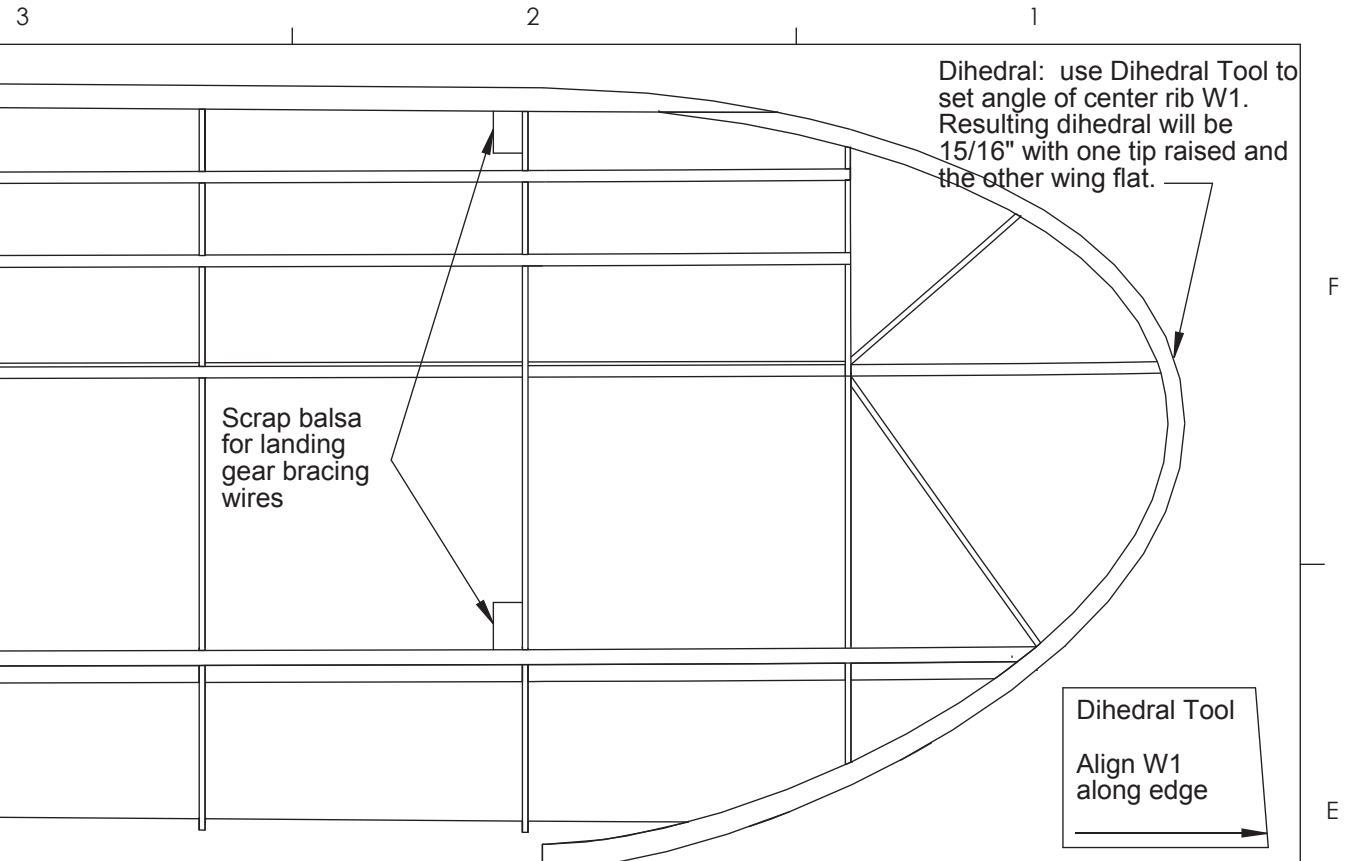
.032" wire joiner

F1

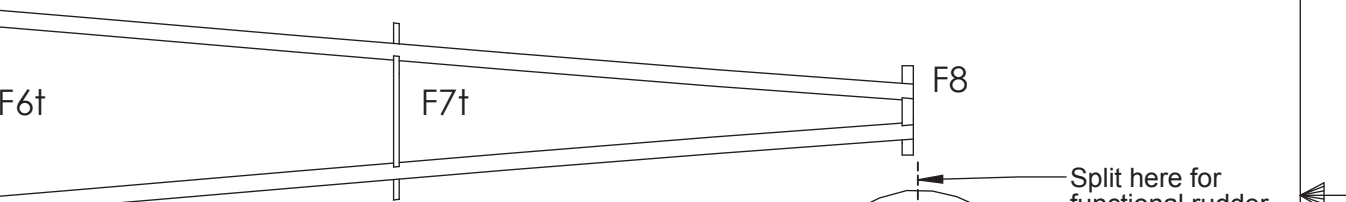
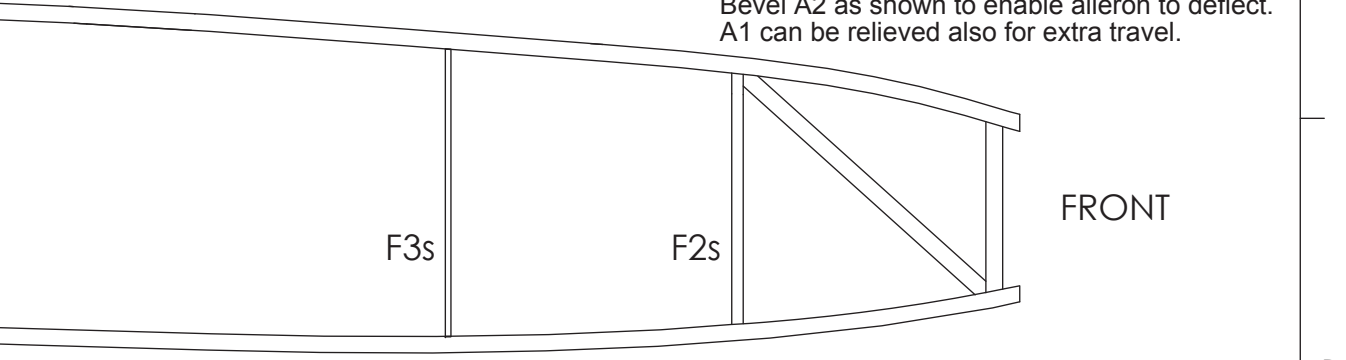


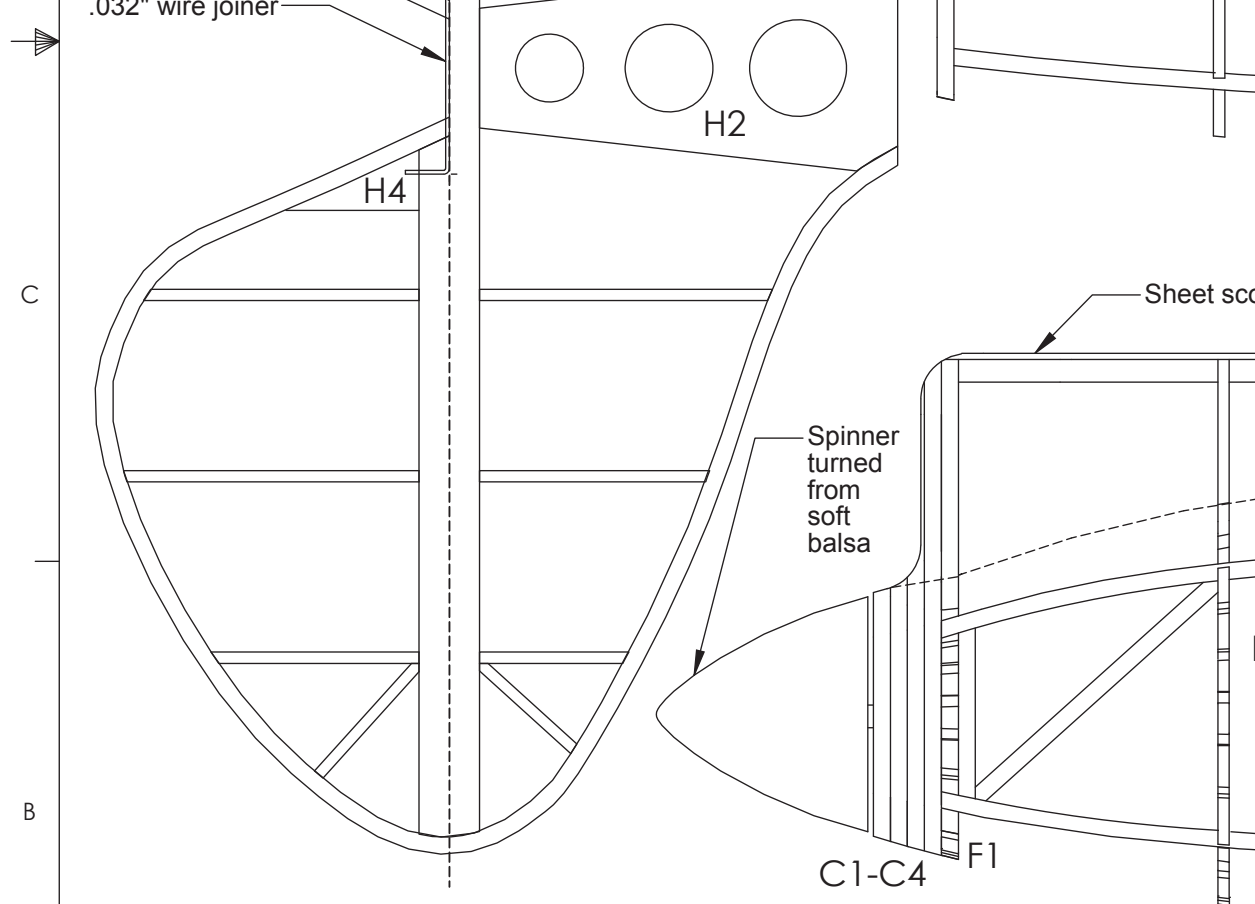
RIGHT SIDE--unlabeled parts are 3/32" square balsa





After wing is fully framed, cut the ailerons free. Bevel A2 as shown to enable aileron to deflect. A1 can be relieved also for extra travel.





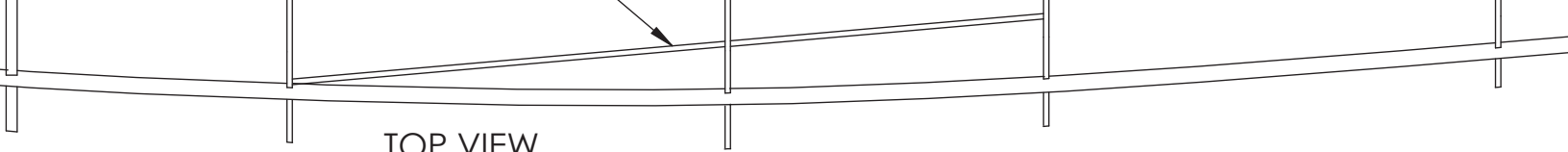
Fuselage Notes--all stringers are 1/16" square balsa:

- | | |
|---|---|
| 3 | <ol style="list-style-type: none"> 1. Sides--build one side frame over the Right Side view and one over the Left Side view <ol style="list-style-type: none"> 1. Use 3/32" square balsa for the longerons, crossbraces, and verticals a <ol style="list-style-type: none"> 1. Dampen the longerons before pinning 2. Allow to dry completely to set their curvature before unpinning 2. Add one side "s" former F2 through F7 to each side where shown on p |
| 2 | <ol style="list-style-type: none"> 2. Top--pin the side frames over the Top view <ol style="list-style-type: none"> 1. Add top "t" formers F2 through F7 2. Add keels K1 and K2 3. Add 1 stringer between the fuselage and scoop/turtleck on each side |
| 1 | <ol style="list-style-type: none"> 3. Bottom--unpin the assembly and add bottom "b" formers F2 through F7 <ol style="list-style-type: none"> 1. Add Saddles S between F3 and F5 4. Ends--add F1 and F8, trim the ends of the longerons if necessary 5. Nose Block--stack parts C1 through C4 using center opening for alignment <ol style="list-style-type: none"> 1. Glue this assembly to F1 and sand to shape 6. Fit the wing <ol style="list-style-type: none"> 1. Remove lower longerons between F3 and F5 2. Fit wing in pocket against saddles 3. Fit paper wing panels to each side of fuselage |

8

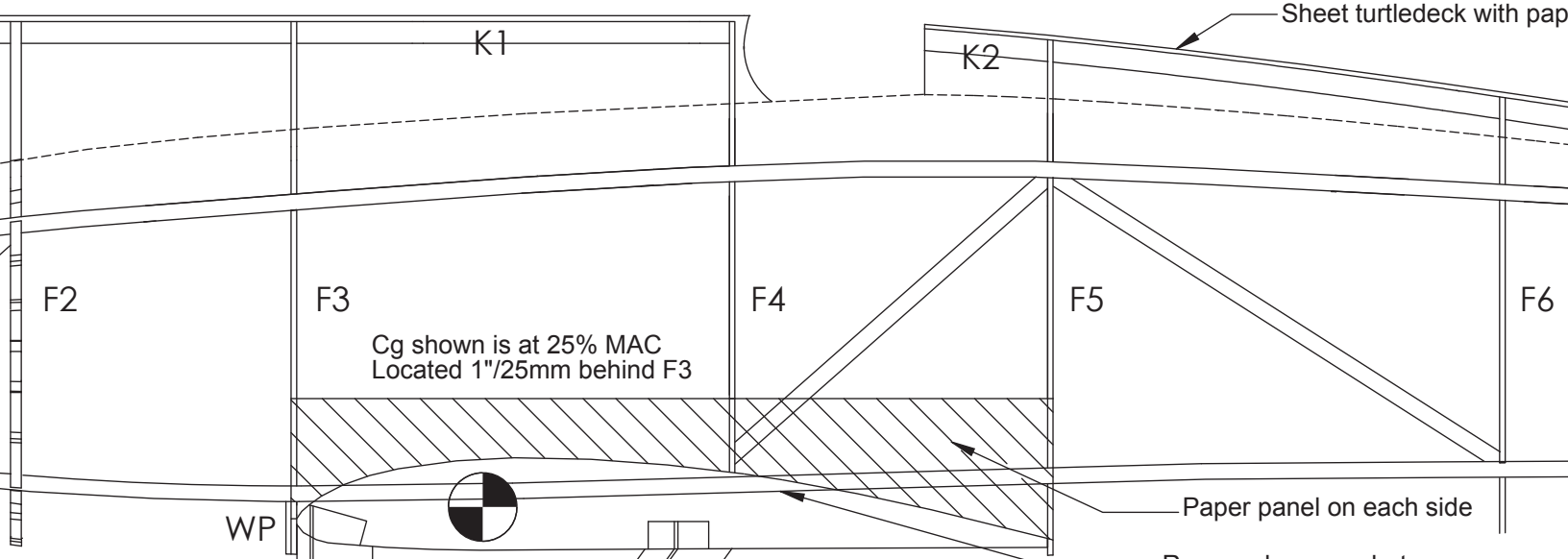
7





TOP VIEW

t scoop with 1/32" balsa

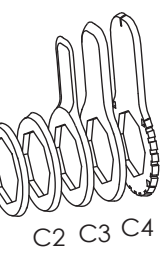


Left Side view
als at each end

g
on plan

de

ent

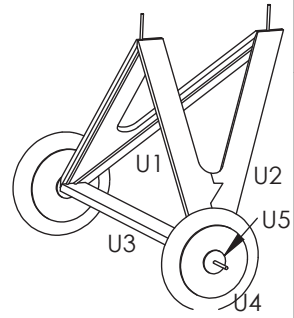


Motor Notes

The prototype was designed around the old AR6400 brick and brushed gearbox was siliconed to a balsa plate in the nose. The newer 2S brushless brick and motor would be a better choice today. Mount for the eFlite BL180 have been added to the Parts Outlines sheet.

Landing Gear Notes

1. Build two struts by joining the U1's and U2's
2. Bend .032" music wire to reinforce the struts
3. Make an axle from .032" music wire
4. Fit the assembly together as shown in the inset with the axle below U3
5. Make each rim by joining two U4's with grain 90deg apart
6. Wrap each rim with foam cord for tires
7. Reinforce the center wing ribs with scrap balsa as shown, drill holes, and plug the finished landing gear assembly in place
8. Rig kevlar line from the axle to the wing blocks as seen on the full-scale Pete

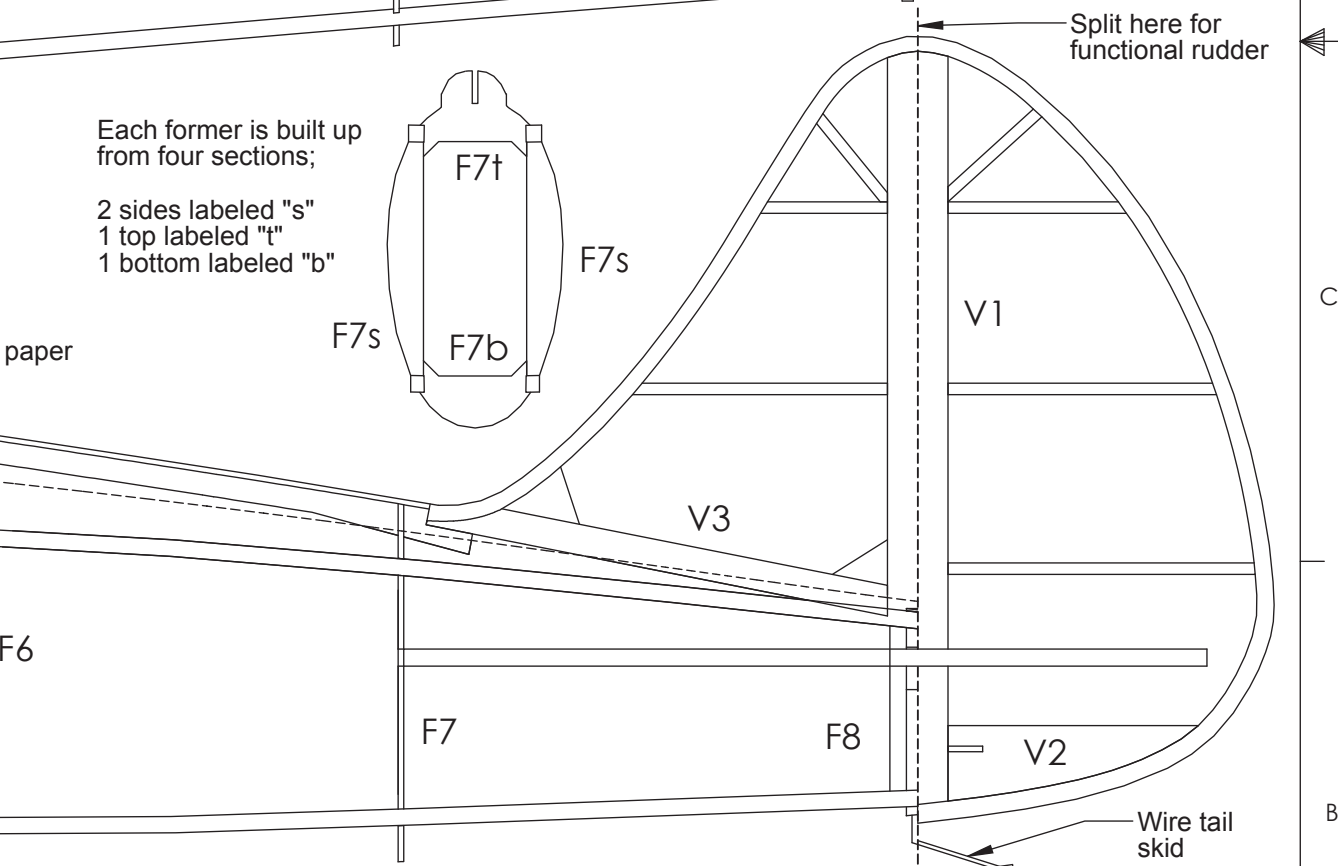


| | |
|--------|---|
| Wings | 3 |
| Length | 6 |
| Weight | 4 |
| Wing | 4 |
| Power | 4 |
| Batter | 3 |

6

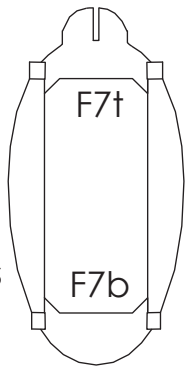
4

3



Each former is built up from four sections;

- 2 sides labeled "s"
- 1 top labeled "t"
- 1 bottom labeled "b"



paper

F6

ished motor. The motor

today. Outlines for a motor sheet.

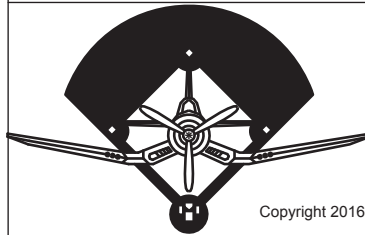
Tail and Wing Notes:

1. Outlines for Wing Tips and Tail Group are laminated from two plies of 1/32" x 3/32" balsa stripped from the kit wood
2. Glue tail parts in numerical order into laminated tail group outlines
3. Tail Group Bracing is 1/16" x 3/32" balsa
4. Wing Attachment
 1. Wire wingpin in leading edge slips into reinforced hole in former F3
 2. Use rare earth magnets hold trailing edge in place

SPECIFICATIONS

| | |
|-----------|-----------------------------|
| Wingspan | 20" |
| Length | 17.75" |
| Weight | 3oz |
| Wing Area | 75.0 sq in |
| Power | UMX Brushed or eFlite BL180 |
| Battery | 180mAh |

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Title
1/12 Scale Howard DGA-3 "Pete" Racer

| | | |
|------------------|------------------------------------|-----------------|
| Size C | Dwg. No. DGA-3 Pete plan | Rev B |
| Scale: 1:1 | Weight: 2.5-3.5oz | Sheet 1 of 2 |

3

2

1

C

B

A