

Bob's Card Models

www.bobscardmodels.altervista.org and www.zealot.com [Resources]

Short 330-200 (Scale 1:72)



The Short 330-200 is a short haul aircraft produced by Short Brothers in the UK. The aircraft above was registered as N337MV (SH3075).

Mississippi Valley Airlines was a regional air carrier serving the Upper Midwestern region of the United States. The airline merged with Air Wisconsin in 1985 and thus lost its previous identity.

Building Instructions

Print all sheets on 160g card or thicker, and only on 90g paper where stipulated.

NOTE: All areas/slits coloured RED must be cut out, usually **after** the unit in question has been/folded/glued. All areas marked GREEN show the positions of (for example), undercarriage struts, aerials etc., and are not to be cut out.

TIP 1: When gluing card parts at right-angles to another piece (eg bulkheads to the outer skin), holding together with fingers until dry usually results in the 'skeleton' image of the bulkheads - not nice! Hold together with 2 flat pieces of wood - I use the flat sides of 2 clothes pegs. Bulkheads should not be forced into the fuselage tubes, but gently inserted with glue.

TIP 2: To result in a good rounded form, when gluing the large serrated tabs to the relevant fuselage part, round the latter in the curve between your index finger and thumb before gluing the tab, add the serrated tab and press until dry. This system should be carried out whenever gluing tabs to rounded parts.

Tip 3: When inserting the bulkheads, pierce a tiny hole in the centre of the b'head, push in a cocktail stick. This helps in placing the b'heads correctly.

Fuselage

1. Cut out all bulkheads **A** to **F**, glue on card, cut out again, glue on card, cut out, thus strengthening each b'head and making them 3x thick.
2. Cut out parts **[4L]**, **[4R]** and fuselage roof **[5]**. NB: Round all 7 longitudinal joins of the fuselage using a 4mm rod, so that the cross-section of the fuselage is NOT a rectangle with 4 sharp corners, but a rectangle with rounded corners.
3. Bend all tabs to (rounded) 90°.
4. Close rear bottom tabs of **[4L]** and glue.
5. Glue lower tabs of **[4R]** to **[4L]**. Now only the roof **[5]** is missing, but before adding
6. Insert the bulkheads **B** to **F**, with a bead of glue on the left, right, and bottom sides of each bulkhead, in the positions shown marked on the tabs.
7. The roof, whose 2 long sides have also been rounded, is now glued in place. NB: the roof is about 5mm too long - the last 5mm should be bent downwards and glued to the tab of the base. Make sure the livery colouring matches that on the sides of the fuselage. Cut off oversize.
8. A thin bead of glue can be run along the seams and formed in place with the index finger, to hide the seams better.
9. The main fuselage is now complete.
10. Roughly cut out **[3]** - do not yet cut out the red area, fold along the arrows using a 3mm rod, cut exact profile, close by gluing the tab.

11. Cut out [7] - do not yet cut out the red area , glue on tab to form the cylinder, slightly bend the 2 side window tabs and glue, close by gluing tab. Glue on the 2 tabs and join [7] to [3]. Only now glue the tab between the 2 main windows.
12. Likewise [2] and [1]. Over the middle of [2], glue on [2A], which should give the front fuselage a bit of a rounded profile.
13. Glue [2-1] to [3].
14. Cut out the red areas on [3] and [7].
15. Cut out, fold and glue the nose landing gear compartment [21] - do not yet cut out the red area! Pierce the red dot (position of wheel support)
16. Cut out the red areas on [3] and [7], and insert [21]. Glue in place to such a depth so that the red end pieces sit flush with the fuselage. When dry, cut off the red portions.
17. Glue a 10g weight inside [3-7].
18. Glue the nose unit to the main fuselage [4].
19. To round the nose, cut slits into [1] about 1/3 to 1/4 the length, fill internally with glue, and using fingers, form the nose to its final rounded shape.

Rear Wings

20. Cut out the rear wings [8], fold the leading edges, fold the tabs and glue.
21. Cut out the rear fins [9] and the red slits, fold the leading edges, fold the tabs but do not yet glue.
22. Fold rear wing stabiliser bar [10], but at present leaving out folds 3-6. Insert free ends through the slit in the right fin, and glue in place. Glue right fin tabs. Insert through the right rear wing, and the fuselage. Glue in place. Likewise for the left fin --- fold the folds 3-6, insert the left wing and the left fin. Glue in place.

Front Wings

23. Cut out the front wings [11] , fold, glue all tabs.
24. Cut out the wing stabiliser bar, make 3x thick, insert in the 2 slits at the top of the fuselage, glue in place.
25. Dab a bit of glue along the stabiliser bar, left and right, top and bottom, insert the 2 wings, glue in place.
26. Cut out the diagonal wing struts [13], fold tab, fold strut lengthways so as to give an oval cross-section. Tab to wing is folded outwards. Glue tab in place in the slit (green) marked under the wing.

Main Landing Gear

27. Assemble the 2 Wheel Housings with parts [14] to [17]. When assembled, cut out the red areas (for the wheels), pinch the rear of each housing and glue.
28. Assemble the 2 horizontal struts [18]
29. Glue the short horizontal strut to the wheel housing, then the lower end of the diagonal strut into the slit (green) marked on the wheel housing. Glue the free tab of the horizontal strut into the slit (green) marked on the fuselage.
30. Cut out, roll and glue the wheels [19L], [19R].
31. Insert the wheels in the housing ---- by carefully packing the interior with wet glued card, the wheels can be inserted to the correct depth (see diagram).

Nose Landing Gear

32. Cut out, roll and glue front wheel [20], Pierce the outer rim with a needle, and glue in the point of a cocktail stick.
33. Glue the front wheel/cocktail stick in place, at such a depth that the aircraft sits parallel to the floor or base. Glue well.

Engines

34. Cut out [22], glue tab to form cylinder, add and glue bulkheads [W] and [X], then add end both tabs.
35. Cut out [23], glue tab to form cylinder, add and glue b/h [Y]. Add end tab.
36. Cut out [24], glue tab to form cylinder.
37. Glue together parts [22], [23] and [24].
38. Cut out [21], glue tab to form cylinder, and glue to [22]. With fingers/fingernail, form the front part of the cylinder to a figure of 8, push in about 3-4mm and glue the 8-shaped bulkhead [V]. In the middle of the upper part of the '8' of the bulkhead (coloured white), make a hole the size of a cocktail stick (with pin and then cocktail stick).
39. The 2-3mm hole at the rear end of the unit is closed by snipping 1-2mm slits in the hole, gluing well, and forming to a rounded finish with fingers.
40. Cut out all green-coloured areas.
41. Glue the whole unit onto the wing in the place marked.

42. Exhaust pipes **[22A]**: Insert in the side of each engine, glue in place.

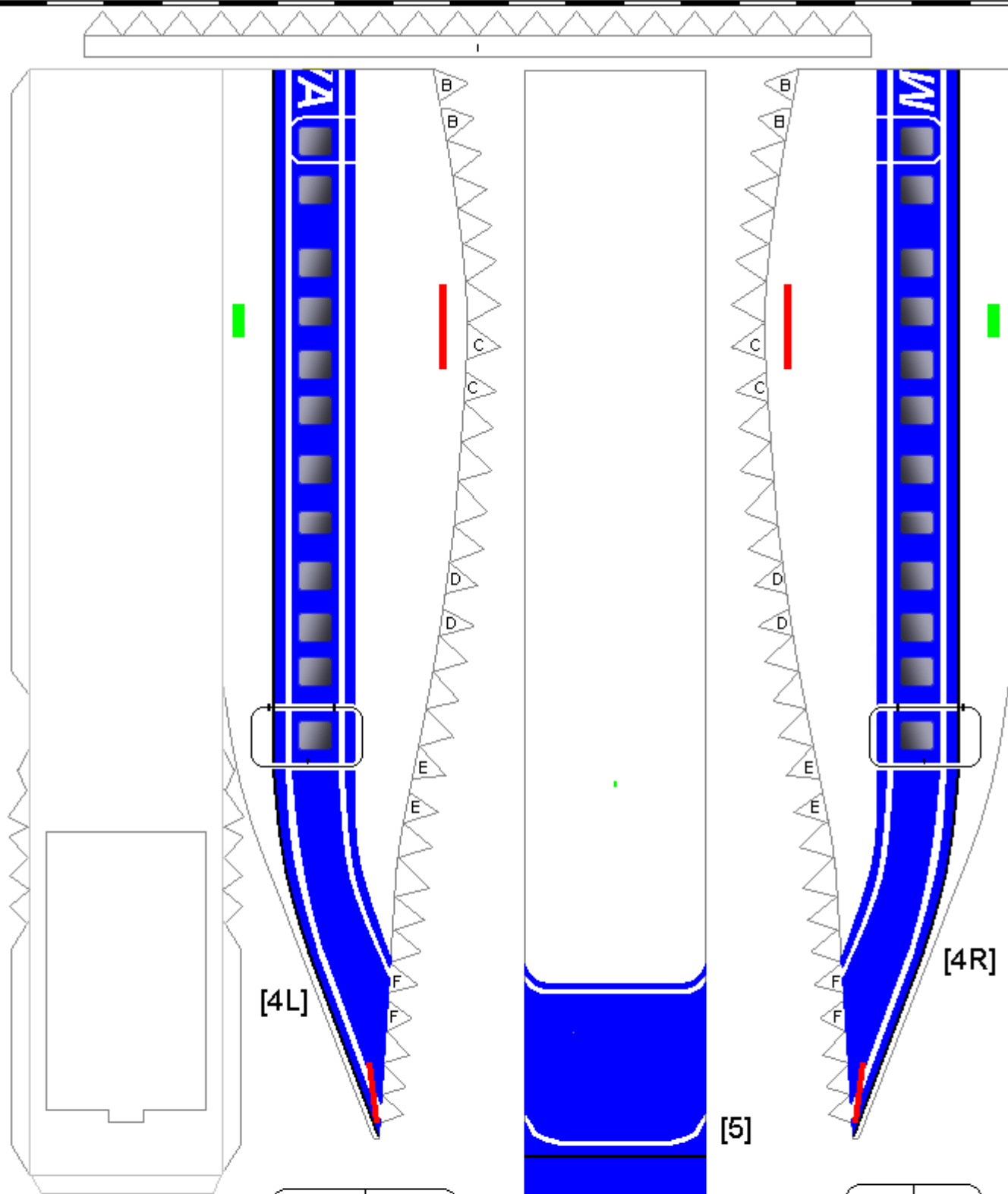
Propellers

43. Cut out the 2 propellers **[25]**, fold according to the sketch, glue, push a cocktail stick through the centre, add the nose cone **[26]**, and push into the engine housing in the hole provided (piercing the 2 bulkheads if possible to give extra stability). Glue if desired.

Accessories

34. Aerials - **[27]** is glued in place on top of the cockpit on the blue marking, **[28]** on top of the fuselage at the rear, again on the blue marking.

---oooOooo---



F	top

Bulkheads A - F: make 3x thick

A	top

B	top

C	top

D	top

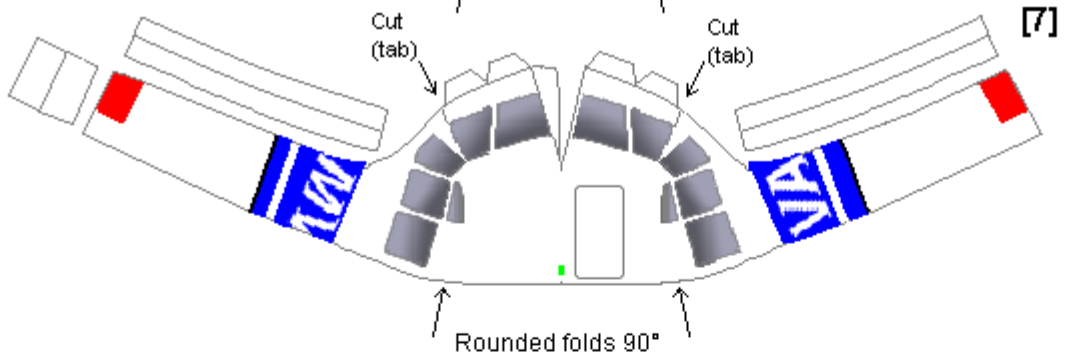
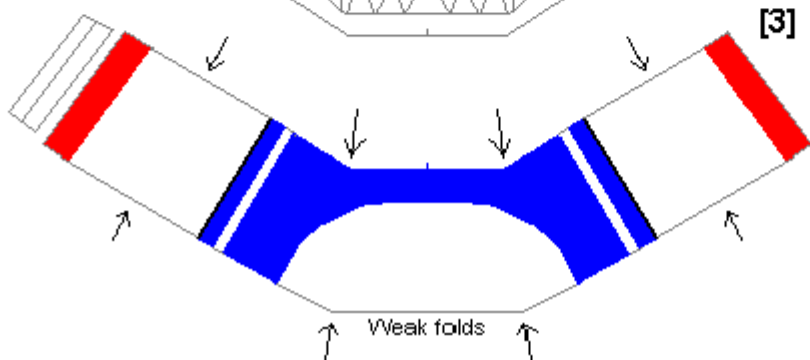
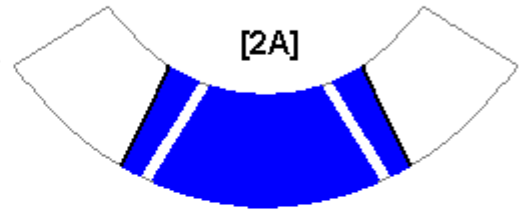
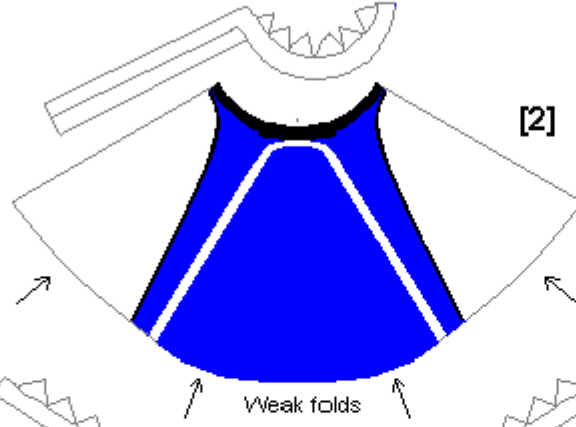
E	top

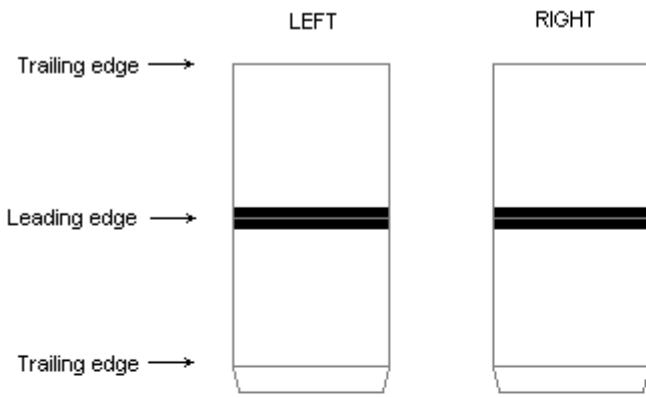
Sheet 1

Short 330-200

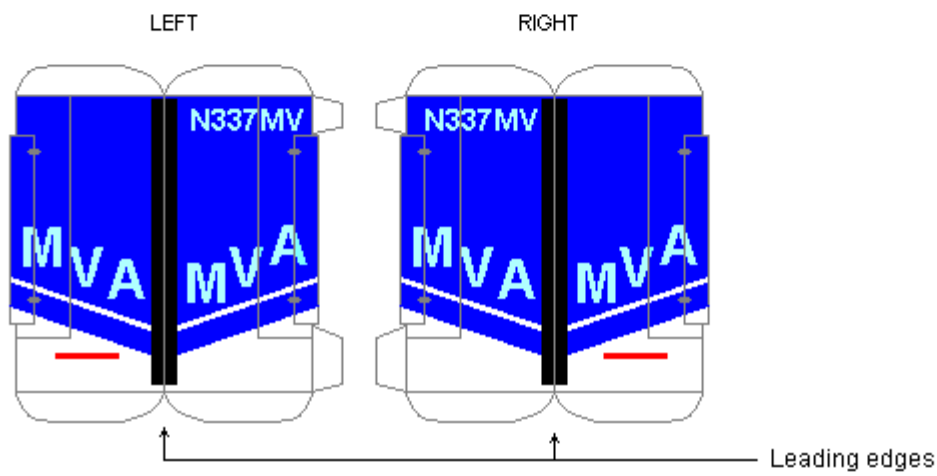


Fold along arrows, using a 3mm rod

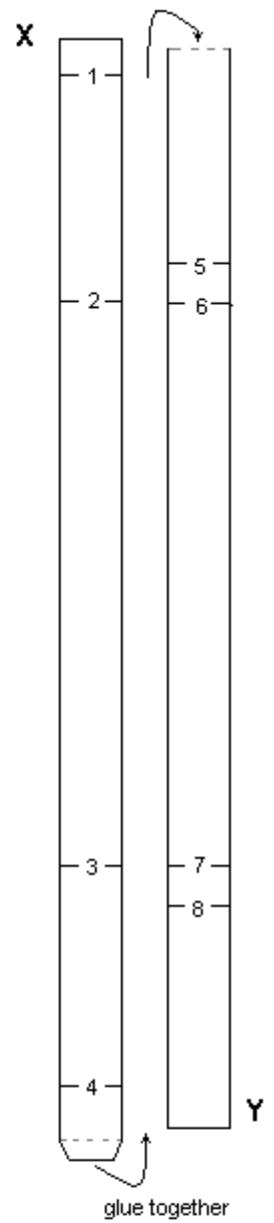




Rear Wings [8]



Rear Fins [9]



Rear Wing Stabiliser Bar [10]
(Fold and glue according to sketch)

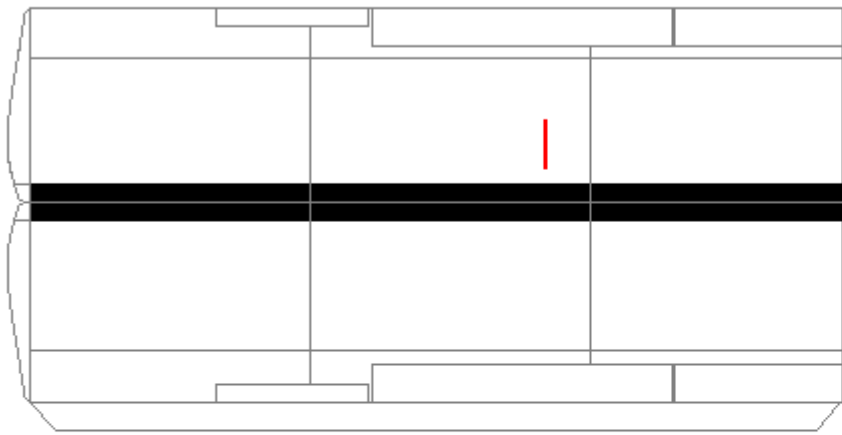


Sheet 3

Short 330-200

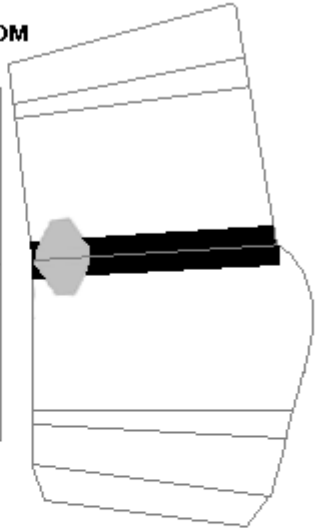
Left Wing [11L]

BOTTOM



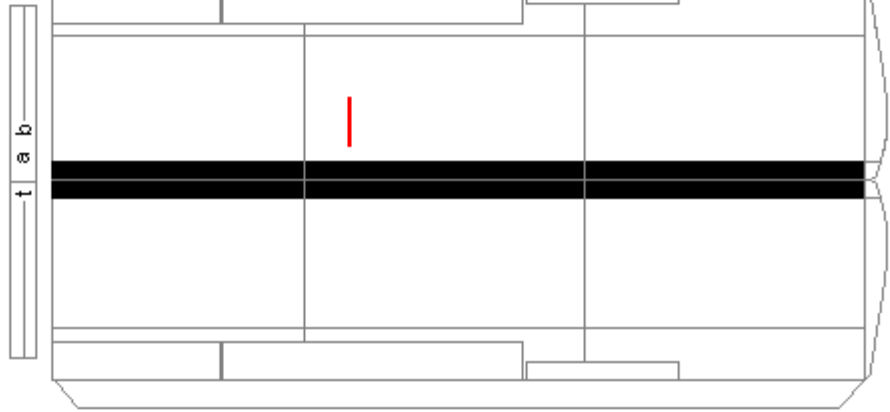
BOTTOM

t
a
b



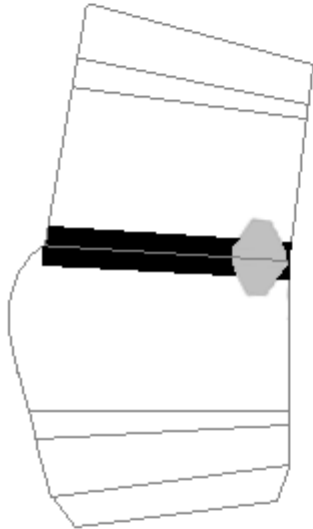
Right Wing [11R]

BOTTOM



TOP

t
a
b



TOP

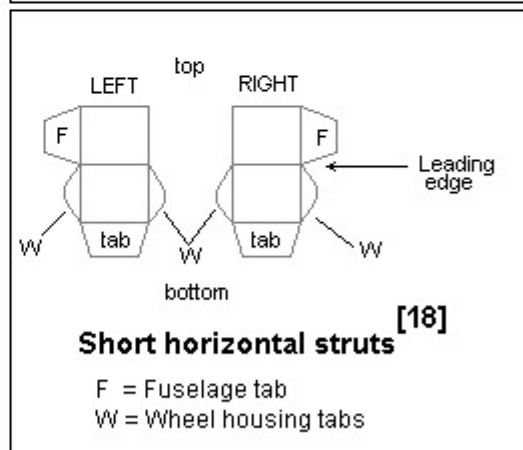
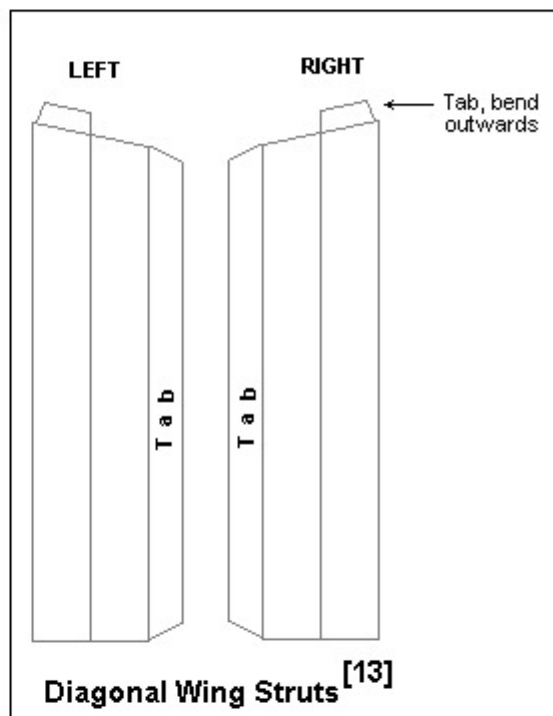
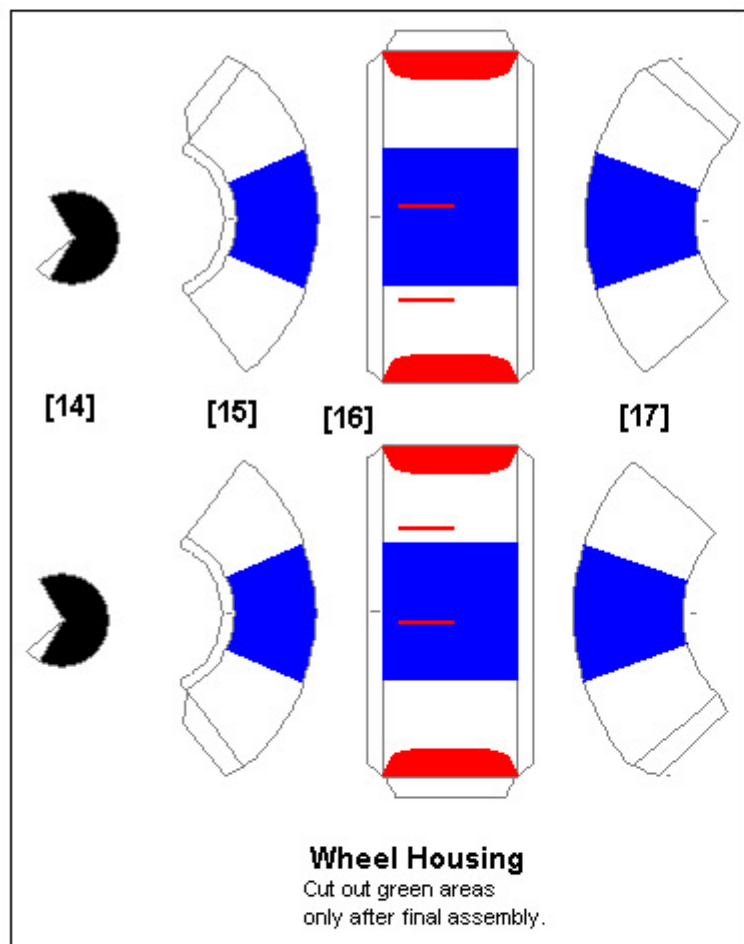
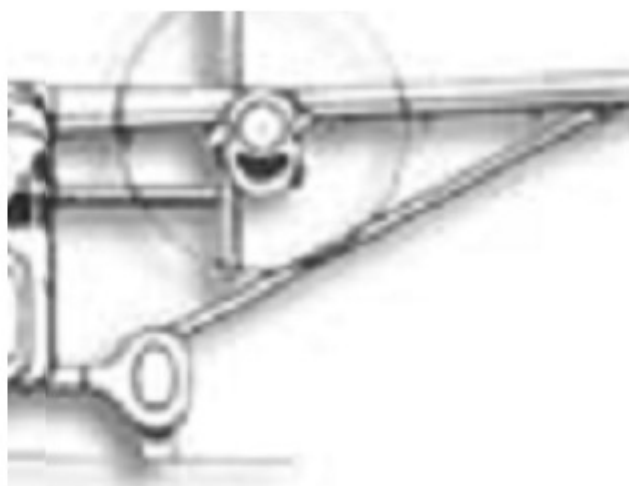
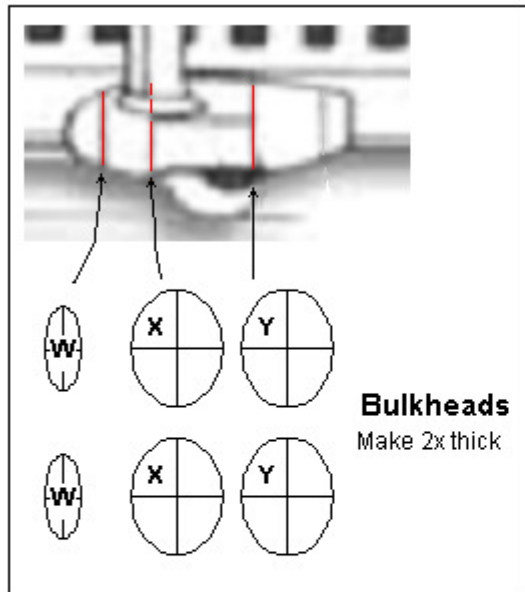
[12]

Wing Stabiliser Bar

(make 3x thick)

Sheet 4

Short 330-200



Sheet 5

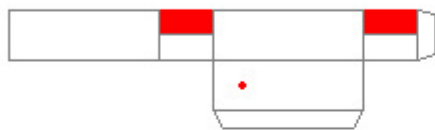
Short 330-200



Side View



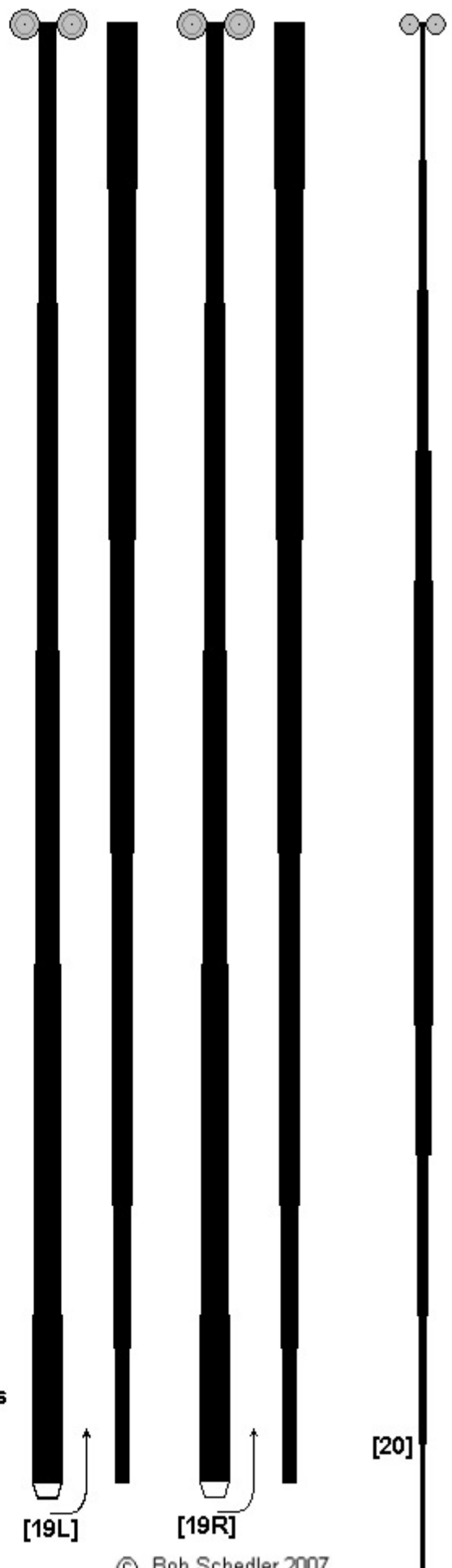
Front View



Nose Wheel Compartment [21]

Pierce the red point with a pin, increase size of hole to 1mm. Do not yet cut out the 2 end flaps.

Wheels

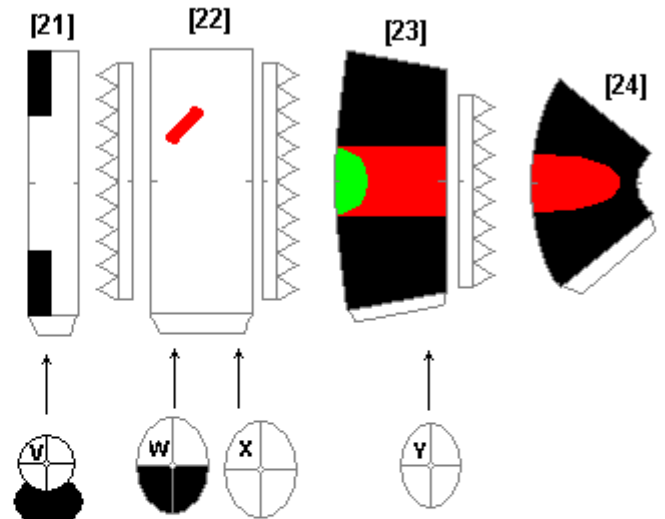
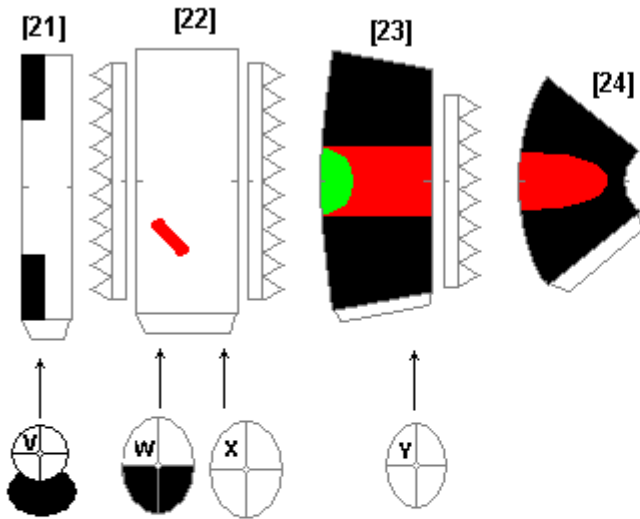


Sheet 6

Short 330-200

LEFT

RIGHT

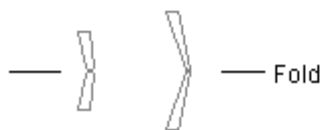


Bulkheads: make 2x thick

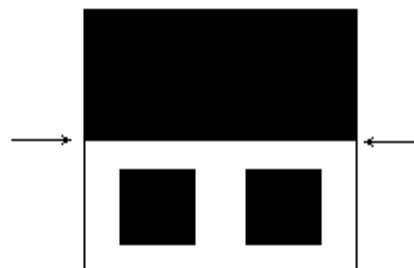
Bulkheads: make 2x thick

Engine Cowlings

Cut out red areas only after assembling & gluing.



[27] [28]
Aerials



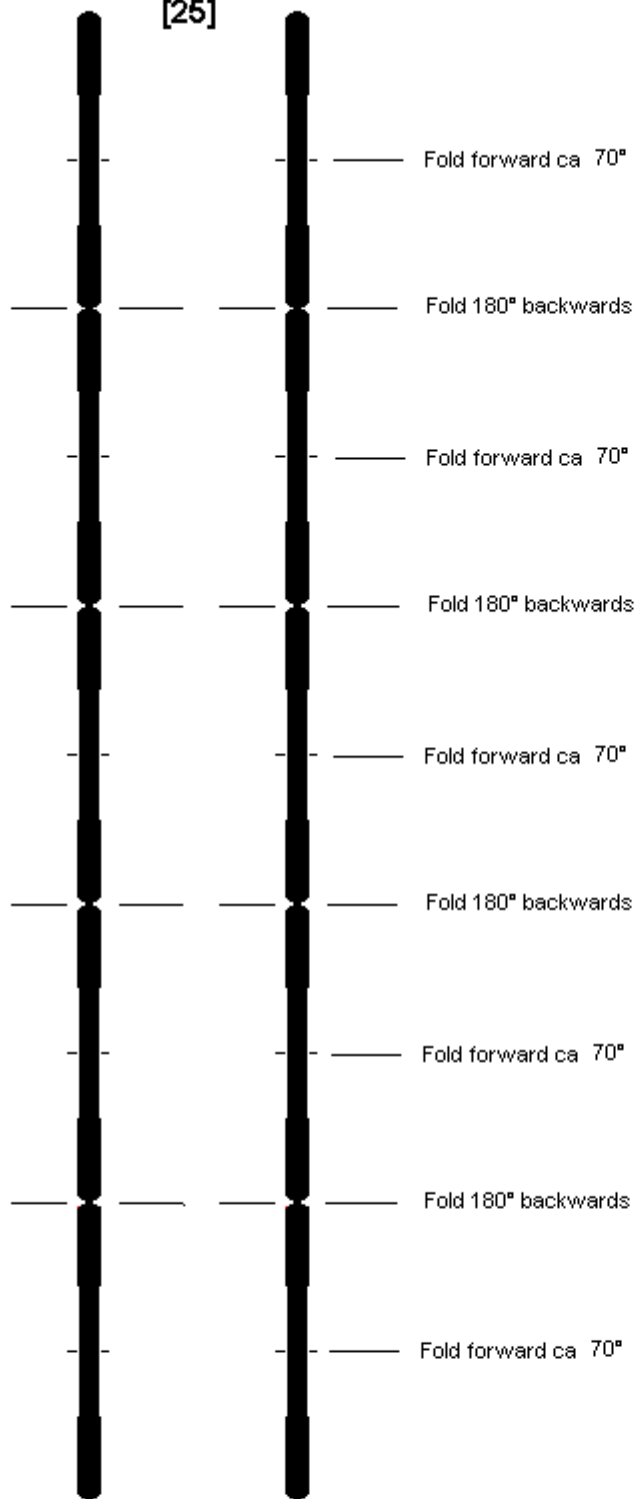
Exhaust pipes [22A]

Fold in half and glue. Cut out the 2 squares, roll each around a cocktail stick and glue - remove stick.

Sheet 7

Short 330-200

[25]



[26]



Nose Cones

Sheet 8

Short 330-200