

# Bob's Card Model

[www.bobscardmodels.altervista.org](http://www.bobscardmodels.altervista.org) and [www.zealot.com](http://www.zealot.com) [Resources]



PHOTO 1: The finished model.



PHOTO 2: The real thing!

## Conair C S 2F (Tracker) water-bomber(1:72)

Sécurité Civile's converted Tracker, used for patrol duty, but also for water-bombing (3200 litres).

Together with the Canadairs and Dash-8, the Tracker can also be seen in the skies of the South of France. They are also based at the airport of Marignane near Marseilles.

I designed and constructed the model on the basis of photographs on the homepage of the friends of Marignane at <http://canadairs.marignane.free.fr> in their gallery, as well as others I found surfing the internet.

### **General characteristics**

Crew: 2

Length: 43 ft 6 in (13.26 m)

Wingspan: 72 ft 7 in (22.12 m)

Height: 17 ft 6 in (5.33 m)

Empty weight: 18,315 lb (8,310 kg)

Loaded weight: 23,435 lb (10,630 kg)

Max takeoff weight: 26,147 lb (11,860 kg)

Water capacity : 3300 litres

### **Performance**

Maximum speed: 280 mph (450 km/h) at sea level

Cruise speed: 150 mph (240 km/h)

Range: 1,350 mi (2,170 km) or 9 hours endurance

Service ceiling 22,000 ft (6,700 m)

## **Building Instructions**

Print all sheets on 160g card, except sheet Paper.

There is quite a bit of white colour on this model; it is advisable to cut the black outline lines on the model side - I have taken this into account in the design.

I have purposely used cocktail sticks where necessary although this goes against the philosophy of CARD modelling - whenever a trade-off occurs between thickness and strength of a part versus scale authenticity.

TIP: 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.

NOTE: Insert the bulkheads using a cocktail stick pushed into a tight hole in the centre of each bulkhead. The fit must be flush, not tight, otherwise ugly "ribbing" will be visible on the fuselage.

### **Fuselage**

1. Cut out parts **B** to **F** using standard procedures, and glue together..... First, glue the individual serrated tabs to each of the **pre-rounded** fuselage portions. When dry, glue to a cylinder with the longitudinal tab.
2. Cut out the bulkheads **C1\*** to **E\***, glue on waste card twice to make 3x thickness.
3. In the following order, glue ..... part **E** to **F**, add bulkhead **E\***, **D** to **EF**, add b/h **D\***, then **C** to **DEF**, add b/h's **C1\*** and **C2\***. taking care to produce the correct fuselage form by comparing with the pictures.
4. Inserting the bulkheads **B\***: this is accomplished by piercing the centre of the b/h in question with a cocktail stick, beading the rim of the b/h with glue, and carefully inserting into the fuselage section.
5. Cut out and round the cockpit [**1**] to approximately its finished form. Glue the middle starboard window to the rear starboard window with the tiny tab attached.
6. Glue the top tab above the windows in place. To correct the point formed, moisten finger and apply to the point, and gently push back.
7. Glue the main tab of the cockpit, to make the cylindrical form.
8. Add and glue a tab to join the starboard front window to the cockpit above.
9. Glue tab **c** onto **B**.
10. Bend down the 2 'a' tabs under the cockpit windows.
11. Cockpit fuselage **B** : cut out and glue main tab to form a cylinder. Cut out the remaining 2 tabs, and glue to form the finished part.
12. Insert **B** through the rear of [**1**] as far as it will go, and glue in place - don't forget to glue the 2 **a** tabs . Make sure that the markings/colours of the 2 parts match.
13. Glue any remaining gaps between **B** and [**1**].
14. Glue in place the serrated tab which will join **A** and **B** .

15. Cut out nose cone **A** . The part is has 4 tiny tabs as well as the 2 tabs which will form the cylinder-like form. Numerous slits should be cut in also. Join the 4 tiny tabs to their neighbours, and the 2 main tabs. Using much glue inside and outside, carefully form the nose cone.
16. Glue **A** onto the serrated tab of **A**, carefully making sure the colours/markings coincide with **B**.
17. For the front landing gear compartment, cut out the grey areas of **B** , assemble the box **[2]** (fold, re-cut and glue, form and glue box) and glue in place inside **B** with just the red flaps protruding.
18. Insert 2 x 5g weights, one on each side of the landing gear compartment inside the nose.
19. Join and glue **A** onto **B** . For the tail tip of the fuselage, cut out and form the cone **[3]** and glue in place.

#### **Rear Fin and Wings**

20. Cut out the rear fin **[4]**, fold, bend back tabs and glue.
21. Cut out the rear fin strut **[5]** and its central slot.
22. Cut out the Rear Wing Stabilising Bar **[6]**, make 4x thickness, bend in the middle so that each strip is about 12.5° upwards from the horizontal. Glue in place in the slots of the rear fin.
23. Cut out the rear fin vertical stabilising bar **[7]**, glue onto waste card thrice so that it becomes 4x thickness, and glue in place through the strut as far as it will go.
24. Cut the receiving slit on the top of the rearmost part of the fuselage.
25. Glue the rear fin in place on the fuselage.
26. Glue on the 2 rear wings **[8L]** and **[8R]** by putting glue on both sides and top and bottom of the Rear Wing Stabilising Bar. When dry, put a bead of glue along all the joints rear wing/rear fin.
27. Cut out Rear Fin Cowling **[9]**, fold centrally, bend back tabs and glue in place just in front of the rear fin on the fuselage.

#### **Main Wings**

28. Cut out the 2 wing **[10L]** and **[10R]** and the Front Wings Stabiliser Bar **[11]** (make the latter 4x thick). Fold the leading edges of the wings (rounded, not sharp), and fold back the 2 long tabs. Glue.
29. Into the end of the wing, insert the spar **[12]** which has been cut out as well as their central slots (insert with glue on the edges, using a bar of waste card).
30. After slightly bending in the middle (maximum 5mm at either end) to give the final form of the main wings, insert the bar in the slots provided in the fuselage about 3cm behind the cockpit. Bead of glue on both sides of the exit position from the fuselage, as well as on the 4 small tabs on the end of each wing.
31. Insert the wings onto the wetly glued Stabiliser Bar **[11]**. When dry, add a bead of glue around the contact wing/fuselage.
32. The paper Fuselage Top **[13]** is cut out, and glued in place between the 2 wings on top of the fuselage.
33. Near the tip of each wing, add the 2 red-painted pointed cocktail sticks set into the leading edge of the wing.

#### **Engine Cowling**

34. Cut out the 2 engine cowlings **[14]**, form with a round bar or pencil and glue the tabs. Push the black bulkhead inside, put glue on the inside of the cowling and push the bulkhead forward to fit flush with the front of the cowling. When dry, put in position, and with a needle, pierce the bulkhead for the propeller axis. Push the needle further to pierce the leading edge of the wing. Increase the size of the holes to about 1mm. Glue the cowling in place.
35. Cut out the cowling extension **[15]**, form according to the plan, fold back the small triangle and its tab, glue the rear tab. Join to the cowling gluing to the position marked. Glue the module onto the wing.
36. ONLY NOW, when the glue is dry, cut out the dotted lines and bend back the flaps to give the doors to the landing gear compartment (TIP: as it is difficult to start a cut in the middle of the paper, first make a hole with a pin somewhere on the line to be cut, and then increase the cut using nail scissors).
37. Repeat for the second cowling.

#### **Propellers (5-bladed)**

38. Cut out the 2 propeller units **[16]**, and fold and glue each to form the 5-bladed prop.
39. Cut out the prop cone **[17]**, glue on the tab, form to a cone and glue. Cut the 5 slits at the bottom of the cone, and insert the propeller. Glue.
40. Push a cocktail stick into the centre of each propeller unit, so that 1-2mm protrudes out front. Glue.
41. Insert the prop cone on the front, so that the blades fit in the slits. Increase the width of the slits with a nail scissors if necessary.
42. On the axle behind the prop, add the Back Disc **[18]** and glue in place.
43. Push each propeller into the Engine cowling in the holes provided. If necessary, increase the size of the holes in the cowling using a nail scissors and a rotary movement, or push a cocktail stick into the holes. If desired, glue in place.

#### **Landing Gear**

44. Cut out and roll all tyres with glue. Dry.
45. **Front wheels:** Liberally glue the 2 front wheels **[19]** on each side of the tip of a cocktail stick, the latter which has been rolled into an adequately long and wide piece of the grey paper for authenticity.
46. Insert into the fuselage according to the plan, and glue liberally in place.

47. Add the shield [20] in front of (and glued to) the cocktail stick and attached to the fuselage.
48. **Main wheels [21]:** Take a cocktail stick, roll into a piece of the grey paper so that the bottom 5mm is free of the grey paper. Bend and crack (but do not break off) the 5mm tip to 90°, glue liberally the crack and add the wheel onto the 90° bent "axle". Let dry well. Add some more glue to the wheel/cocktail stick contact for added strength.
49. Assemble as per sketch.

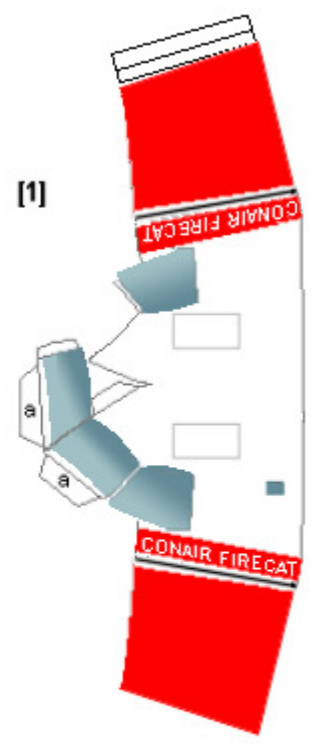
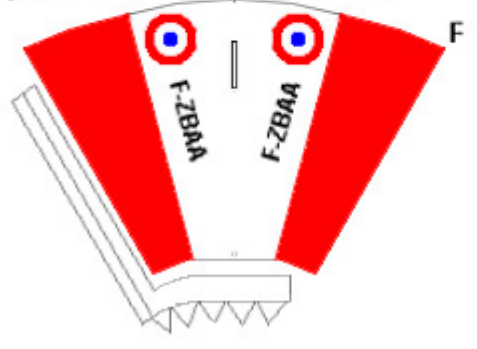
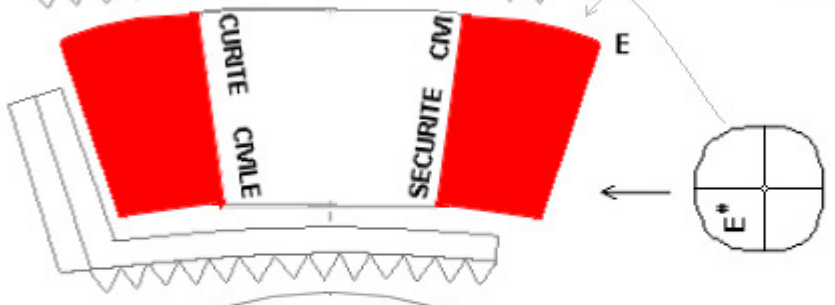
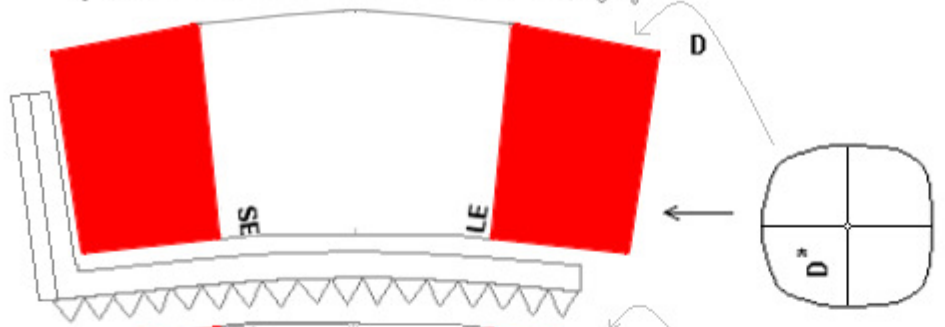
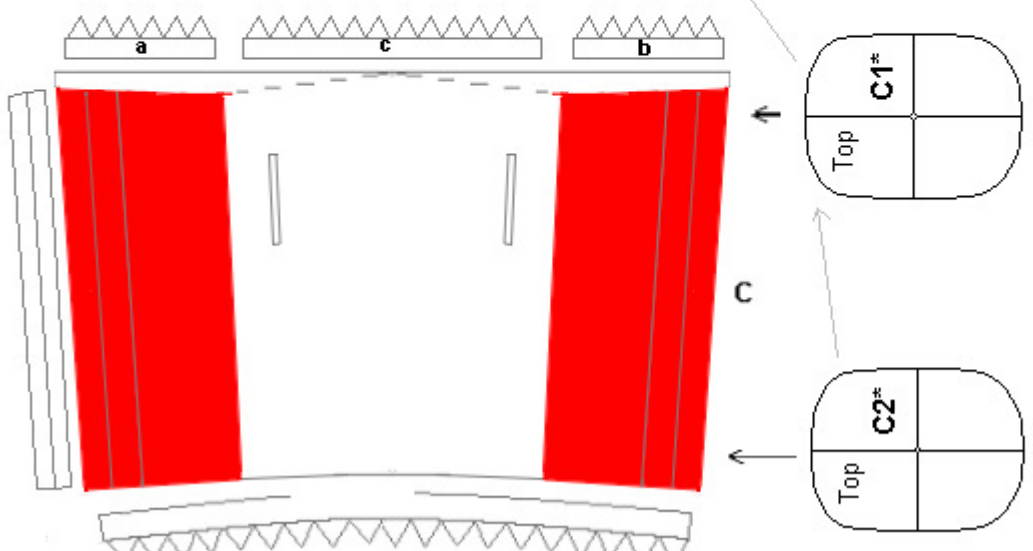
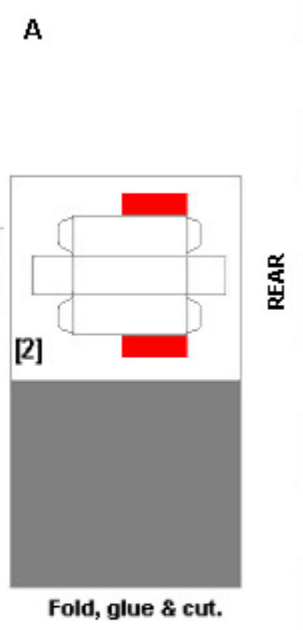
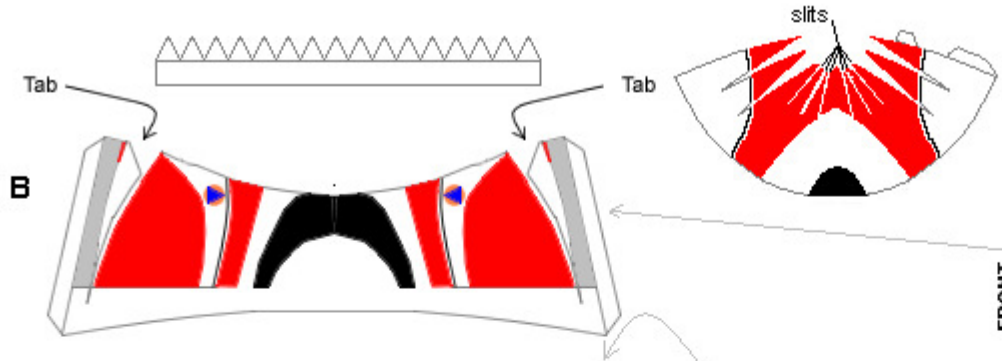
#### Accessories

50. Cut out, fold and glue the Tail Skid [22].
51. Cut out and glue the 2 Wing Tanks [23]. Before closing the front bulb, insert the tail cone from the front, push through the main tube (whose rear end has been wetted with glue) until it nearly protrudes in its full length. Allow to dry. Cut, glue and close the front end.
52. Cut out the Tank Suspension Units [24], fold in the middle, bend tab and glue so that the profile is rounded, not flat. With a bead of glue along the edges, glue in place under the wing in the position marked. Glue on the wing tank. Repeat for the second tank unit.
53. Cut out, roll and glue rear fin red light [36] and glue on top of fin.
54. Add the 2 aerals [25] on top of the fuselage, 1 just in front of the rear fin, 1 over cockpit.
55. Assemble and fit an exhaust pipe on to the side of each engine cowling as shown.
56. Cut out [26], fold to a quadratic rod, glue. Snip slits in the rear, to fit over the rear port wing, and in the front to form a streamlined front portion.
57. Cut out [27] and fit in place on top of rear fin.

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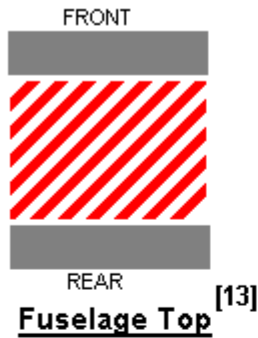
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Conair C S 2F (Tracker) water-bomber

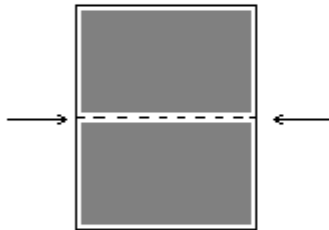


[25]  
**Radio Aerials (2)**  
 Fold, glue flaps together,  
 glue in place

**Sheet 1**  
 Tracker



Grey sleeves for rolling around & gluing to cocktail sticks



**Exhaust Pipes (2)**

Fold and glue so that both sides are grey. Cut out grey area. Roll a tube of about 2-3mm diameter and glue, then using a razor blade cut into 2 pipes.

Each pipe: about 5mm from each end, cut out a segment of about 80°, bend the tube and glue. Glue in place on the Engine cowling (pierce a hole to accommodate).



Roll around a pin and glue, slit the rear, form the front to a point.



Slip on wing, glue.

**Rear Wing Aerial [26]**

Print on 80-90g paper

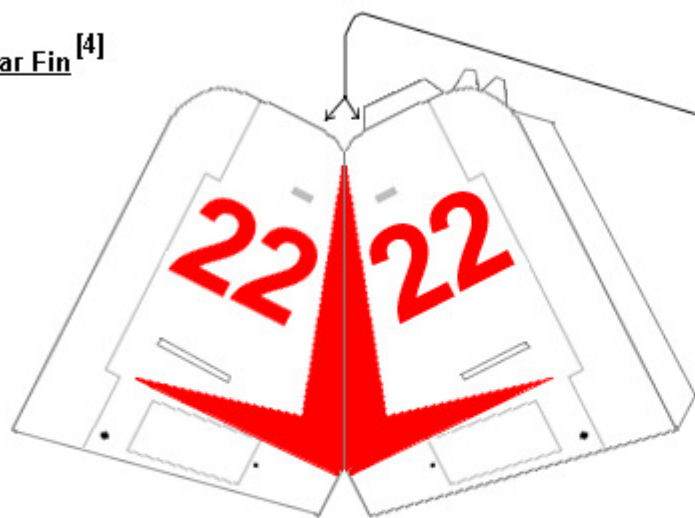
**Sheet 2**

Tracker

Fold 180° →  ← Fold 90° and glue tabs to fuselage

**Tail Skid [22]**

**Rear Fin [4]**



[27]

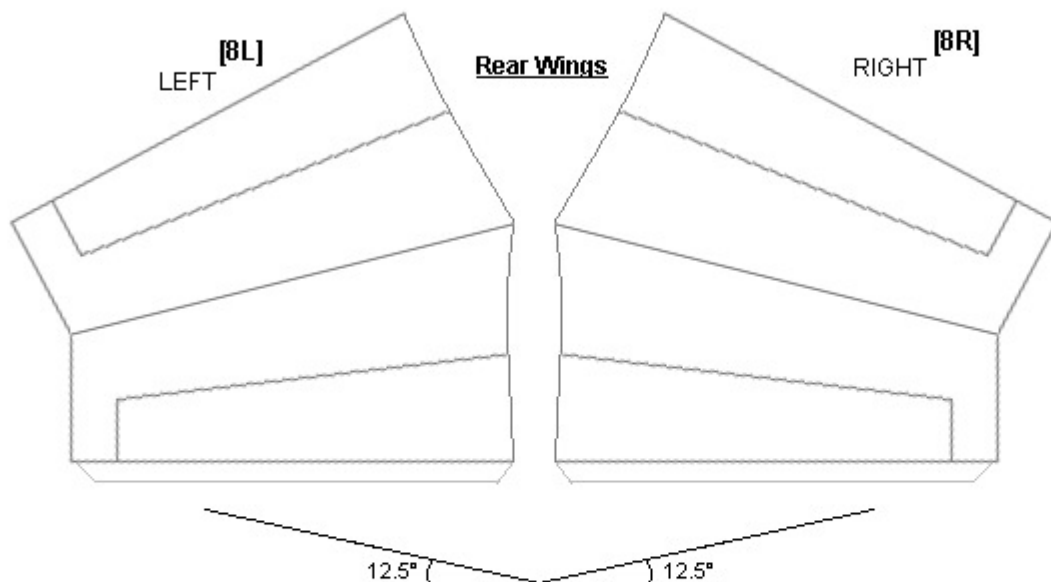
Push 1/2-way through slits in fin.

**Strut [5]**  
Make 3x thick



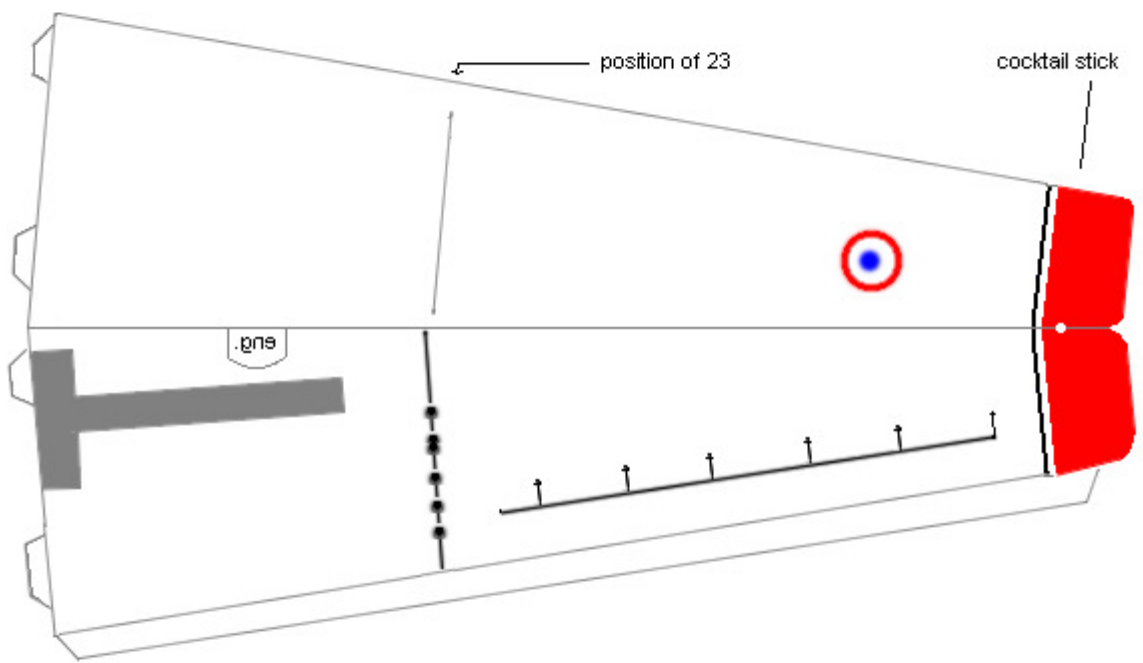
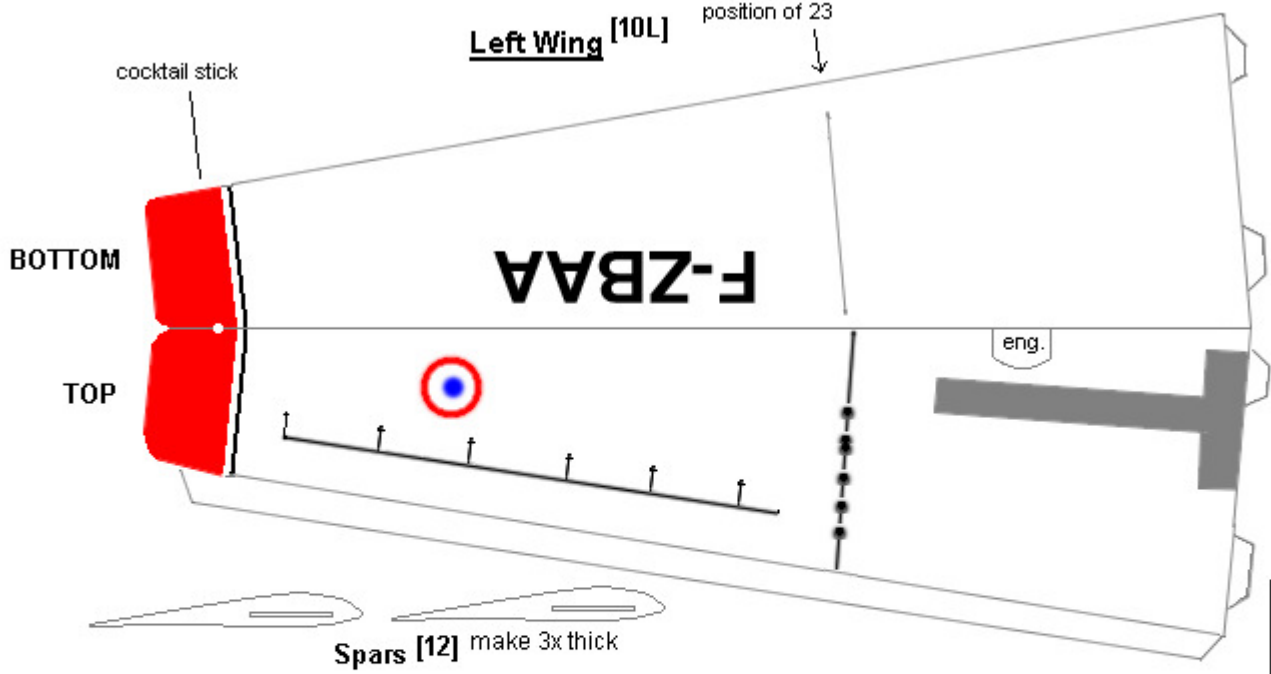
**Vertical [7]  
Stabilising Bar**  
Make 4x thickness

**Rear Wing Stabilising Bar [6]**  
make 4x thick

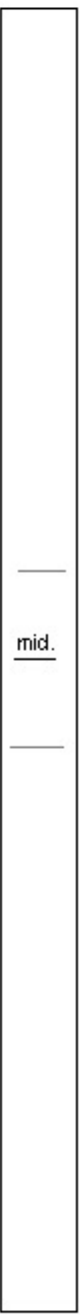


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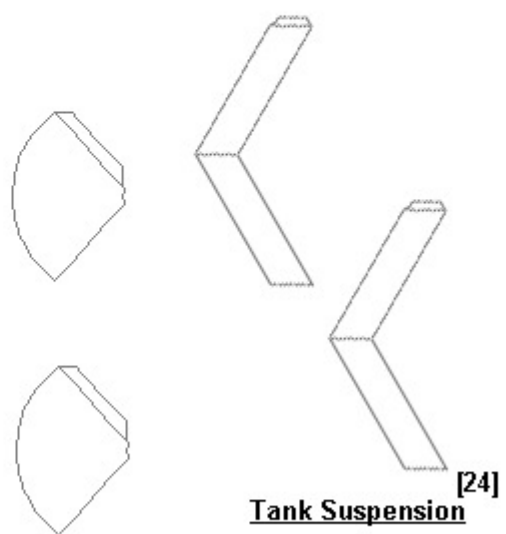
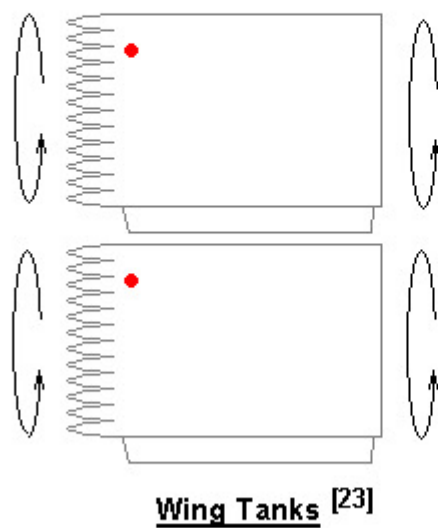
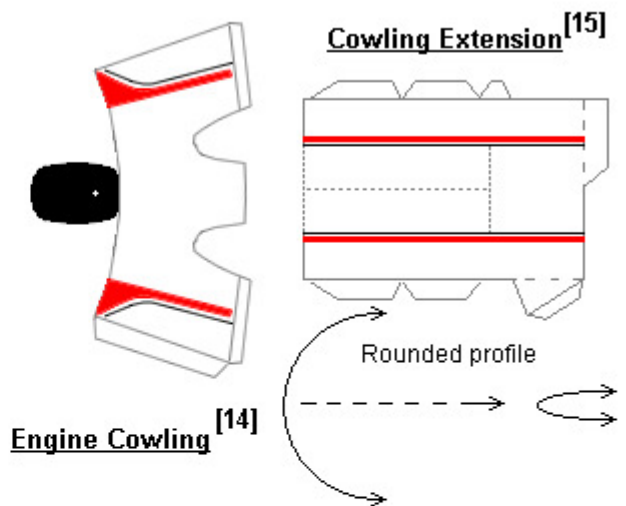
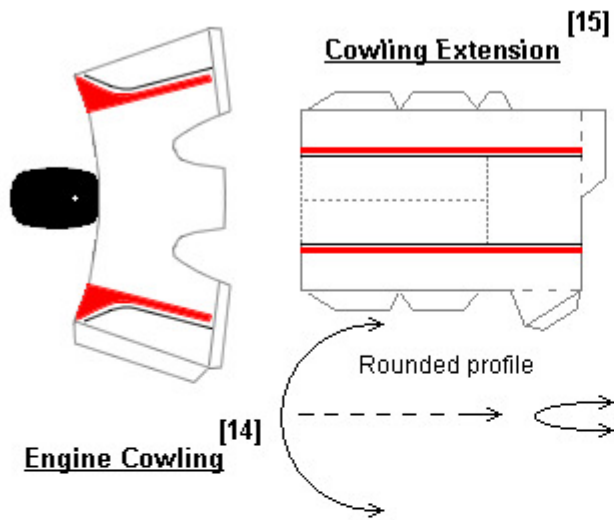
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**Front Wings [11]**  
**Stabiliser Bar**  
 Make 4x thick





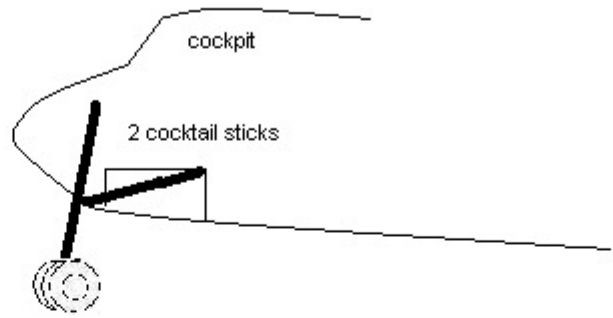


**Tail Cone**

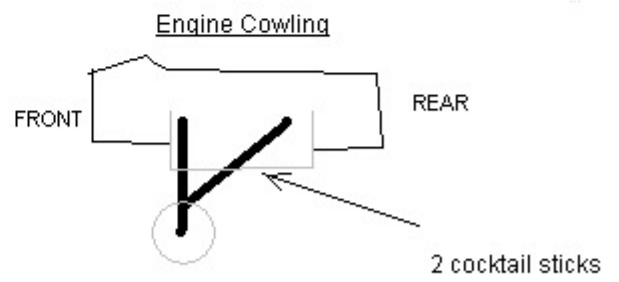
Front Wheels [19]

Main wheels [21]

Front landing gear



Main landing gear x 2



**Sheet 6**

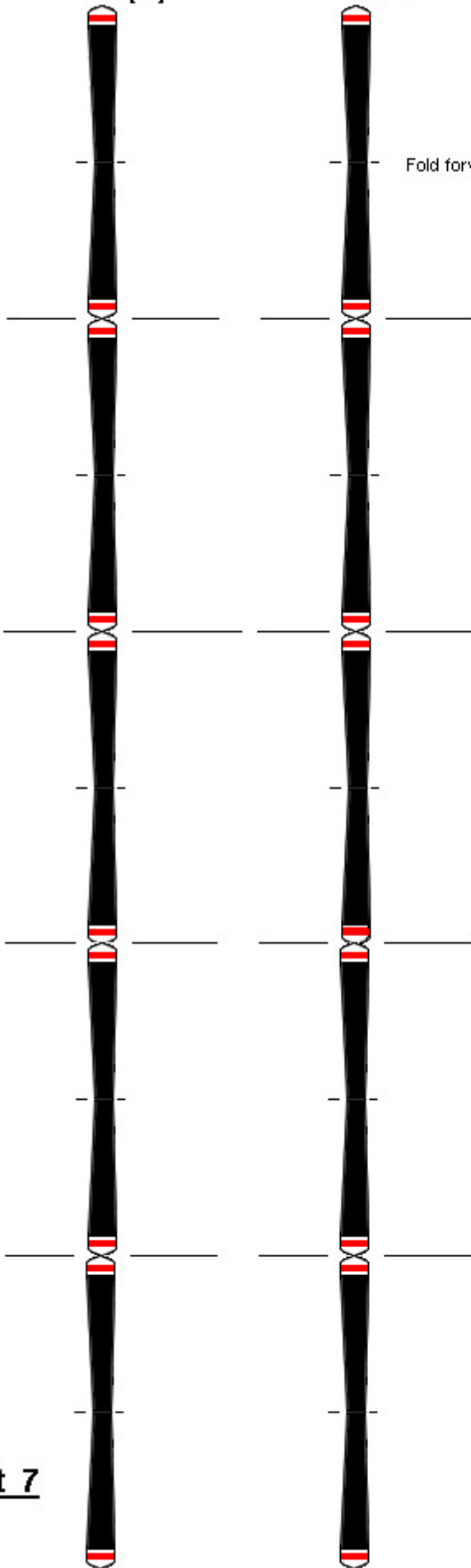
Tracker



Front Wheel Shield [20]

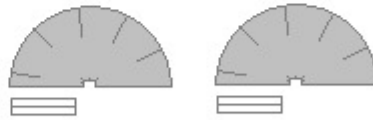
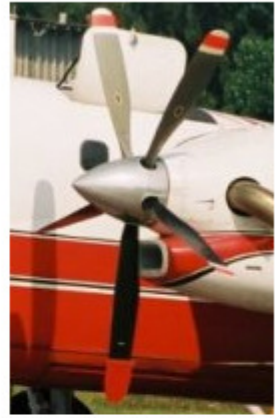
[16]

[16]



Fold forward ca 30-40°

Fold 180° backwards



**Nose Cones** [17]



**Back Discs** [18]

**Sheet 7**

Tracker

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