

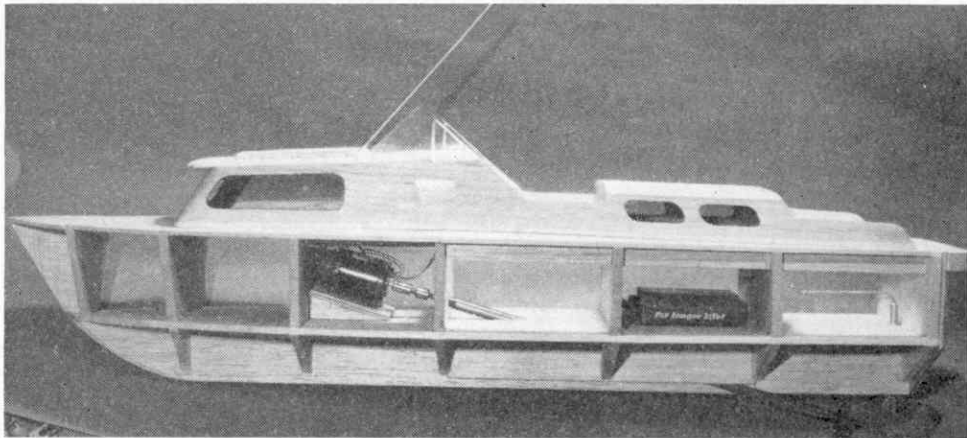
# PROJECT

## '66

### PHASE - 3

BY

RON WARRING



# 7 SUPERSTRUCTURES

Huntress  
Ranger Tropical  
Surfrider  
Thunderbird  
Christina  
Coronet  
Dell Quay Ranger

In the January issue of Meccano Magazine we gave you a free full size plan to make the hull of Brave Moppie. Last month we showed you how to instal diesel or electric motors. This month there's another free full-size plan with details of seven superstructures that can be added to your hull to represent other famous power boats. Next month we will show you how to fit any of these models with radio control!

If you missed either of the earlier issues, they can still be obtained from our back-numbers department price 2/- each including postage.

THE full size plan this month shows the parts required to make SEVEN more models based on the same (Brave Moppie) hull—all well known high speed craft. These, together with 'Brave Moppie', make up a complete fleet of off-shore racers. You can build them all—or, perhaps better still, get together with some other chaps and each of you build a different racer for trying out against each other on the local pond.

Remember, the hull and fitting out details are exactly the same as described in Parts 1 and 2 for all the models. It is merely a case of 'converting' this hull by the addition of a cabin and related details, the cabin shape being different, and differently placed, in the seven models shown on this month's plan. Having done this it may then be necessary to remove some of the original after decking so as to produce an open cockpit. Details like this are given in the individual descriptions of the various models.

The method of building up the further models is the same in each case. Two cabin sides are required, traced or copied off the full size outlines given. These

are then joined by formers and the cabin unit then cemented in place on the hull, the after part of the sides coming over the deck beam position so as to leave the aft side decking intact. The exact position for fitting the sides can be determined from the full size plan.

Motor installation (diesel or electric motor) should be completed as described in Part 2 *before* fitting the cabin in place and the original forward deck hatch can be left off as this area is covered by the cabin. In the case of an electric powered model the cabin roof can be cemented in place permanently. With a diesel powered model the cabin roof must be made detachable, in order to get at the engine for starting.

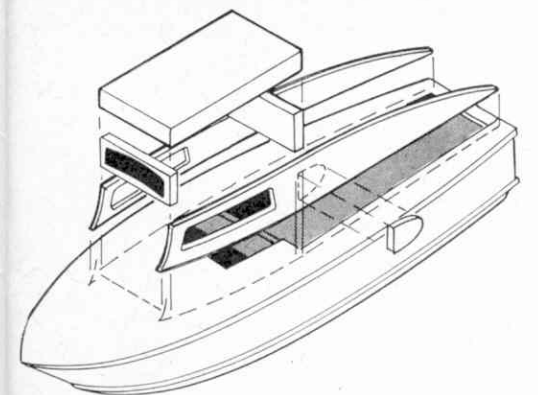
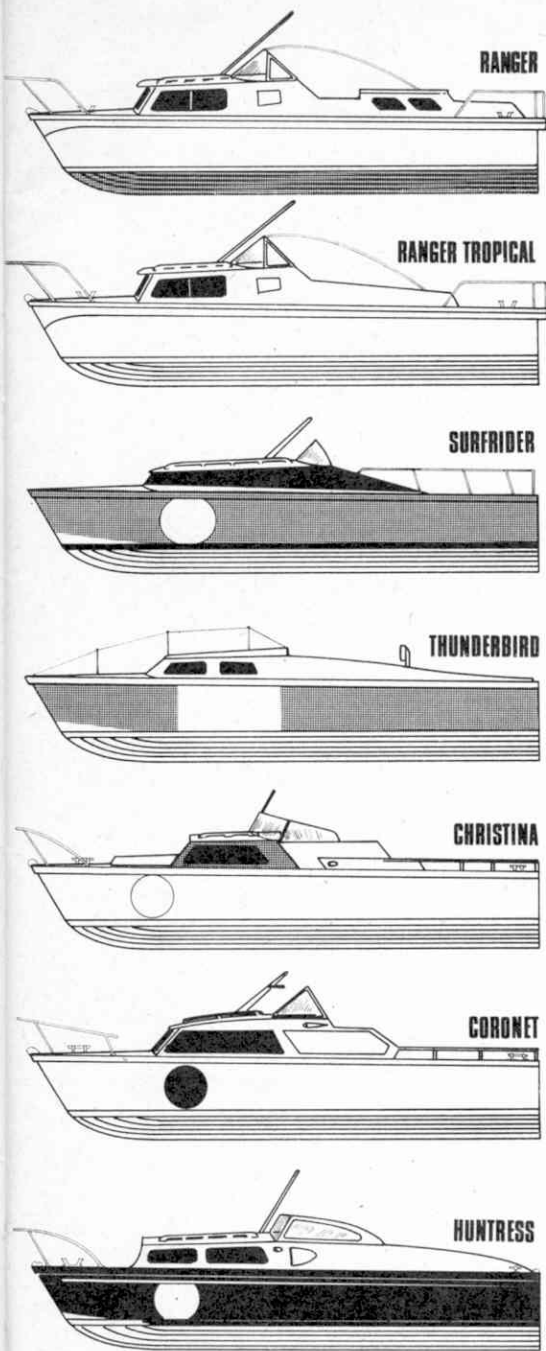
Glazing of all cabin windows is done with clear plastic sheet, which for best appearance should be cut to the shape of the window, but slightly oversize, and cemented on the outside. Alternatively, cabin windows can be painted on in black (or cut out from black paper cemented in position). This is necessary in the case of the 'Coronet' cabin windows in any case because of the large window area. To cut out windows of

this size would weaken the cabin sides unduly.

Many of the models employ a wrap-around windshield, which should be cut to shape by trial and error from thicker plastic sheet. The metal frame outline and vertical struts can be indicated by painting on in silver.

Further details such as the pulpit, side rails (where appropriate) and deck fittings such as cleats and fairleads, can be added to the model after painting in the form of plastic fittings. These will add considerably to the realism of the model and the cost of such fittings is usually only a few pence each. You can use your own ideas as to what fittings to add and where to position them. For guidance on this subject, study photographs of the full size craft. There is really no standard layout for deck fittings, etc., and individual owners have their own ideas on this subject.

Note: The full size patterns for the sides and formers, etc., are to approximate size (slightly oversize) to allow for chamfering to fit snugly and accurately on the deck. It is impossible to give exact sizes as individual hulls may vary



The simple construction of the 'Huntress' superstructure is fairly representative

slightly in deck curvature. In all cases, therefore, a certain amount of trimming up is required on the parts to ensure accurate final assembly. This is quite a straightforward job and should present no difficulties.

In all cases the sides are cut from  $\frac{1}{4}$  in. soft sheet balsa, except where noted (e.g. 'Christina' sides 2 and sides 3) and for 'Huntress' (sides from  $\frac{1}{8}$  in. sheet).

### Dell Quay Ranger

Full size patterns are given on the plan for cutting the following parts needed to complete this model.

- 2 'Ranger' cabin side pieces cut from  $\frac{1}{4}$  in. sheet balsa.
- 1 Cabin roof from  $\frac{1}{4}$  in. sheet balsa\* (note pattern is half plan of the shape required).
- 1 Aft cabin roof  $\frac{3}{16}$  in. sheet balsa\* (half plan shown).
- 1 Off each bulkheads R1, R2, R3 and R4, from  $\frac{1}{4}$  in. balsa sheet.
- 1 Deck extension cut from  $\frac{3}{8}$  in. sheet.
- 2 Grab rails cut from  $\frac{1}{8}$  in. sheet.
- 2 Air scoops from  $\frac{3}{16}$  in. balsa;  $5\frac{1}{2}$  in. length  $\frac{1}{16}$  in. dia. dowel; fairly thick celluloid or acetate sheet for the windshield.

\* Cut two pieces each from 3 in. wide sheet and cement together.

The cabin sides need to be slightly chamfered along the bottom edge to conform to the curvature of the deck and stand vertically. Assemble by cementing formers R1, R2, R3 and R4 between the sides. Note that R1 needs to be chamfered top and bottom and is cemented only just inside the front edges of the two sides. This joint is then backed up with scrap lengths of  $\frac{1}{4}$  in. sq. balsa and the front of R1 sanded to a curved shape. The whole assembly is then cemented permanently on to the deck in the position shown on the plan.

Trim the tops of the formers flush with the sides, as necessary, and fit the two roof panels in place. In the case of a diesel powered model, do not cement the front cabin deck in place but cement a frame to the underside to make it a plug fit between R1 and R2. In the case of an electric powered model, the aft cabin roof should be made detachable to get at the battery compartment.

Round off the two cabin roofs, shaping the ends as necessary, and sand to finish flush with the cabin sides.

Cement the deck extension piece on to the transom in line with the top of the deck.

Windows should be 'glazed' by cutting out pieces of clear plastic sheet to the same shape as the window cut-outs but slightly oversize and then cementing in place on the outside. In the case of a diesel model, do not glaze the side windows of the forward cabin.

The superstructure is finished by cementing the two grab rails in place to the cabin top, shaping the scoops from  $\frac{3}{16}$  in. balsa and cementing in place and also adding the wrap-around windshield

cut from thicker clear plastic sheet. The pennant mast is a length of  $\frac{1}{8}$  in. dowel pushed into the cabin roof and held with a touch of cement.

Other details such as the pulpit and rails, anchor, cleats, etc., can be added in the form of plastic fittings obtained from any model shop.

Suggested colour schemes:

Hull—white, dark blue or light green; with red, green or blue bottom.

Decks—white, natural wood or stained with a light coloured wood dye.

Superstructure—all white.

### Ranger Tropical

This is very similar to the 'Ranger' except that the shape of the sides is different from behind the windscreen and there is no aft cabin. The sides must be cut to the dotted line aft and R3, R4 and the aft cabin roof are not required.

The model is fitted up in a similar manner as before. When completed the after decking is cut away right up to the sides from R3 to a distance of 1 in. in front of Bulkhead 6 position in the hull. Bulkhead 5 should then be cut away down to floor level to provide an unobstructed cockpit area.

Suggested colour schemes: as for 'Ranger'.

### Surfrider

This is the 1964 Power Boat Race winner featuring a low cabin shape and no windows. Parts required to complete this model are:

- 2 Sides cut from  $\frac{1}{4}$  in. balsa sheet to the shape shown.
- 1 Each S1, S2, and S3, from  $\frac{1}{4}$  in. sheet.
- 1  $1\frac{1}{2}$  in. sq. panel of  $\frac{3}{16}$  in. sheet (hatch).
- Pennant mast cut from  $\frac{1}{16}$  in. ply.

S1 has to be chamfered to line up with the front of the sides, and the bottom edges of the sides must be slightly chamfered so that they conform to the curvature of the deck. Join the sides by cementing S1 and S2 in place. S3 is cemented into the hull itself through the cockpit reaching right down to the chine shelf. When this is fitted, cement the side assembly permanently in place.

The cabin roof is shaped from an  $8\frac{1}{2}$  in. by  $5\frac{1}{2}$  in. panel of  $\frac{1}{4}$  in. sheet balsa, rounded off as shown and trimmed down flush with the edges of the sides. The hatch is sanded to a concave shape on the underside to fit snugly on to the deck and cemented in place. Add the pennant mast, and the simple windscreen cut from thin clear plastic sheet.

The whole of the decking from bulkhead 5 right aft to the transom (bulkhead 7) is now cut away between the sides, i.e. in line with the deck beams. Bulkheads 5 and 6 are also cut away vertically right down to the chine shelf to produce a completely open cockpit. Colour scheme: blue or green hull with white bottom. Decks and cabin sides and top white, with colour band in same colour as hull topsides or darker colour. Authentic racing number '66'.

## Thunderbird

This was the second place boat in the 1965 Power Boat Race, close behind 'Brave Moppie'. Construction is very similar to that of 'Surfrider' except that the cabin sides are longer and extend well aft to protect the occupants from spray. Join sides first with T1 and T2 (after chamfering T1 and the bottom edges of the sides) and then cement to the hull and line up with the position of the deck beams.

The cabin top is shaped from a  $5\frac{1}{2}$  in. by  $5\frac{1}{2}$  in. piece of  $\frac{3}{8}$  in. sheet balsa (join two 3 in. wide pieces) and either cemented in place or made a plug fit.

Cut away the after decking back to the point shown on the full size plan and cement in a reinforcing piece of  $\frac{1}{2}$  in. by  $\frac{1}{2}$  in. strip running between the two deck beams. The backrest is made from  $\frac{1}{2}$  in. by  $\frac{1}{2}$  in. strip with four lengths of  $\frac{1}{8}$  in. strip cemented in place. When set, cement in place to the reinforcing strip previously fitted. Colour scheme: hull topsides—yellow, hull bottom, deck and cabin sides and top—white. Authentic racing number '283' in black on white panel on each side, and in black across the cabin roof.

## Christina

A 'Christina' won the first Cowes-Torquay Power Boat Race and remains one of the 'classic' craft of its type, noted also for its attractive styling.

Parts required to complete this model are:

2 Side 1's from  $\frac{1}{4}$  in. balsa.

2 Side 2's from  $\frac{1}{4}$  in. balsa.

2 Side 3's from  $\frac{1}{4}$  in. balsa.

Formers C1 and C2 from  $\frac{1}{4}$  in. sheet.

6 in. by 4 in. by  $\frac{1}{2}$  in. balsa block (for front cabin).

Two 11 in. lengths of  $\frac{1}{4}$  in. by  $\frac{1}{8}$  in. spruce or obeche for handrails.

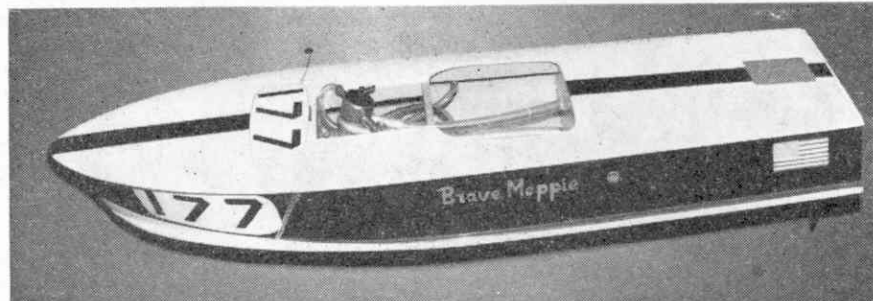
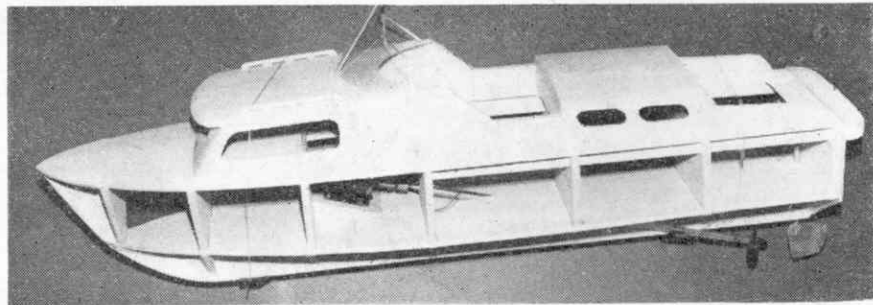
About 4 in. of  $\frac{1}{8}$  in. or  $\frac{3}{32}$  in. dowel; celluloid for windshield.

Start by fitting former C2 in the position shown on the full size plan. Note that this former extends right down to the chine shelf and fits between the deck beams. Fill in between the sides of this former and the sides of the hull below the deck line with scrap sheet.

Now fit the cabin sides and C1, chamfering C1 to angle back correctly, and also chamfering the bottom edges of the sides to conform to the curvature of the deck. Carve and fit the front cabin block, shaping the top curve to match the curve of the front window.

Cement the two Side 2 pieces in place; and the two Side 3 pieces outside them, as shown. Complete by adding the hand-rail supported on short lengths of dowel. For greater security of fixing the deck can be pierced to insert the dowels which are then levelled off and the handrail cemented on top.

The cabin top is covered with  $\frac{1}{8}$  in. sheet balsa. In the case of a diesel powered model the top will have to be cemented to a built-up framework so that it is a plug fit and can be removed for



As thousands of readers saw them at the Schoolboys and Girls Exhibition. The Editor's completed, diesel powered Brave Moppie, and above, the 'un-skinned' hull, with Dell Quay Ranger superstructure temporarily fitted in position, as described in this feature

access to the motor for starting. With an electric powered model simply cement the  $\frac{1}{8}$  in. sheet cabin top in place.

The whole of the aft decking between bulkheads 5 and 7 should now be removed, out to the position of the deck beams. Bulkheads 5 and 6 are then cut down vertically in line with the deck beams and the centre parts removed to leave a completely unobstructed cockpit.

Colour schemes: hull usually white with red, green or blue bottom.

Decks: natural wood or stained with a light coloured wood dye, or painted white.

Cabin: Sides 3 and front cabin part, white. Sides 1, mahogany. Sides 2, very pale blue or green. Cabin top, same as Sides 2, or white.

Wrap-around windscreen: blue or green tinted celluloid.

## Coronet

This model has a fairly deep cabin with large windows. The windows should be painted on rather than cut out, otherwise construction is similar to the other models, except for the cabin roof. Since the cabin shape is 'square', the roof can be planked with  $\frac{1}{4}$  in. sheet balsa with the grain running from side to side. The edges are then rounded off with sandpaper.

The second former (G2) is shown fitted between the deck beams roughly 1 in. behind bulkhead 4. If preferred, this can be extended down to the chine shelf and filling the complete space between the hull sides to blank off the cabin completely.

The windscreen is built up as a complete framework of  $\frac{1}{8}$  in. sq. balsa which is then covered with panels cut from clear plastic sheet after cementing to the cabin top. Note that the cabin roof

finishes just behind G2.

The two rails extending back to the transom are of  $\frac{1}{4}$  in. by  $\frac{1}{8}$  in. hardwood strip (spruce or obeche mounted on  $\frac{1}{4}$  in. sq. uprights (balsa or obeche). This rail does not extend across the transom.

Cut away bulkheads 5 and 6 level with the deck beams to give an open cockpit from G2 aft.

Colour schemes: hull—white with red, blue or green bottom (or all white).

Deck, cabin sides and top—white.

Racing number in white on black circle.

## Huntress

Designed and built by Fairey Marine, the 'Huntress' is a well known offshore power boat racer together with its larger counterpart, the 'Huntsman'.

The cabin sides in this case extend backwards almost to the transom, but the whole of the cockpit is open from F3 (fitted over bulkhead 4) to the transom. The sides are cut from  $\frac{1}{4}$  in. sheet.

The cabin roof for this model is cut from  $\frac{1}{4}$  in. sheet carved and sanded to a well rounded shape. The front window is painted in F1. Note that F1 is vertical and does not slope backwards.

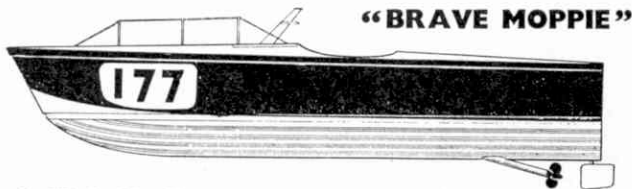
The windscreen sides are cut from  $\frac{1}{8}$  in. ply and cemented directly on to the main side pieces in the position shown. The windshield assembly is then completed by covering both sides with celluloid (or thin plastic sheet) and adding a curved windscreen front. The complete screen (sides and front) can be cut from a single piece of celluloid on a trial and error basis, if preferred.

Typical colour scheme: hull topsides—dark blue; bottom—red or white. Cabin sides and top—white.

Racing number in black on white circle.

# Solarbo Balsa

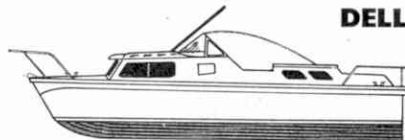
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**"BRAVE MOPPIE"**

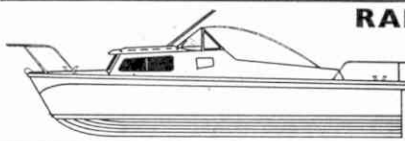
- |  |  |
|--|--|
| <input type="checkbox"/> 4 off 36" x 3" x 1/4"       | <input type="checkbox"/> 1 off 36" x 1/2" x 1/4" |
| <input type="checkbox"/> 1 off 36" x 3" x 3/8"       | <input type="checkbox"/> 3 off 36" x 1/2" x 1/8" |
| <input type="checkbox"/> 2 off 36" x 2" x 3/8"       | <input type="checkbox"/> 3 off 36" x 1/2" x 3/8" |
| <input type="checkbox"/> 3 off 36" x 3" x 1/8"       | <input type="checkbox"/> 6 off 36" x 1/8" sq     |
| <input type="checkbox"/> 2 off 36" x 2" x 1/8"       | Other materials required include                 |
| <input type="checkbox"/> 6" length 2" x 1 1/2" block | 1/8" ply, balsa cement, tissue and pins.         |
| <input type="checkbox"/> 6" length 2" x 2" block     |  |

## DELL QUAY RANGER



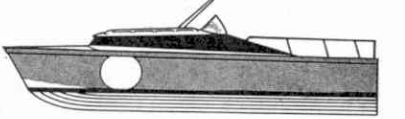
Hull materials as for 'Brave Moppie' plus 1/4" sheet for cabin sides and 1/4" and 1/8" sheet for fwd and aft cabin tops.

## RANGER TROPICAL



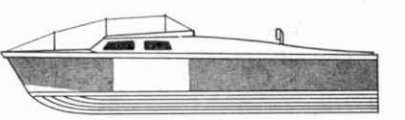
As 'Moppie' plus 1/4" sheet for cabin sides and 1/4" sheet for cabin roof. Same as 'Ranger' without rear cabin.

## SURFRIDER



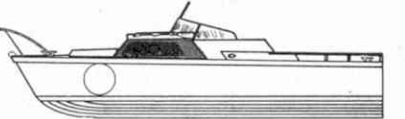
Basic hull materials will leave enough sheet for cabin sides, etc., 1/4" sheet panel will be required for cabin roof.

## THUNDERBIRD



Cabin sides, etc. from spare basic hull materials. 5 1/4" x 5 1/4" x 1/4" panel for cabin roof.

## CHRISTINA



You may need some extra 1/4" sheet for cabin sides and rails; also 1/4" x 2" x 6" front cabin block and 1/8" sheet for cabin roof.

## CORONET



Some additional 1/4" sheet may be required; also 1/4" sheet for cabin roof and 1/8" sheet overlay panels, plus strip for rails.

## FAIREY HUNTRESS



Sides can be cut from 36" x 2" x 1/4" sheet. Cabin roof is 12" x 3" x 1/4". Wind-screen sides from 1/8" ply.

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