

Cruiser conversions

From the Airfix HMS 'Tiger' kit

MOST readers will already be aware that the Royal Navy's three 'Tiger' class cruisers are very much 'new wines in old bottles', being basically World War 2 vessels considerably redesigned. Originally scheduled as units of the 'Minotaur' class—of which *Superb*, *Swiftsure* and *Minotaur* (later HMCS *Ontario*) were completed in 1944-45—the 'Tigers' were laid up for many years before eventually entering service in 1959-60, much changed in appearance and mounting the new automatic 6-inch and 3-inch guns.

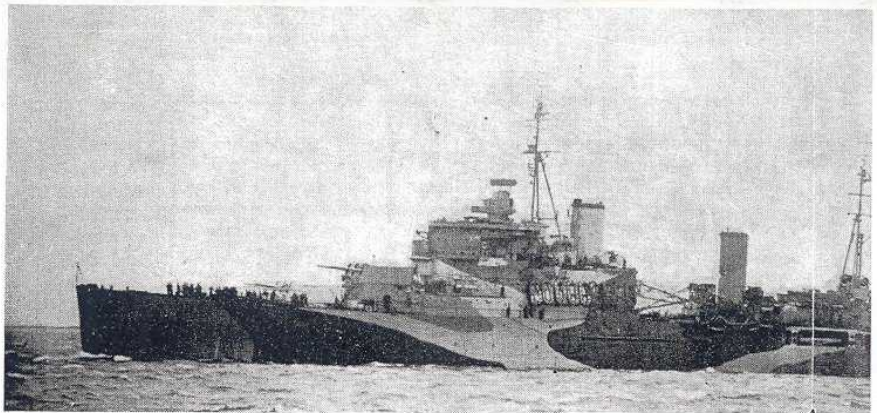
Fortunately for modellers, the changes in design were restricted—externally at least—to a somewhat loftier superstructure and the new armament so that, by using the Airfix *Tiger* kit as a basis, it is possible to model a whole fleet of cruisers spanning the years from 1940 to the present day.

Tiger traces her ancestry directly back to the ships of the 'Mauritius' class which joined the fleet in the early war years. These vessels—*Mauritius*, *Kenya*, *Jamaica*, *Gambia*, *Bermuda*, *Nigeria*, *Fiji* (sunk) and *Trinidad* (sunk)—served throughout the war and post-war periods, only recently going to the breakers or being sold out of service. In 1942-43 a further three ships of improved design—*Uganda* (later HMCS *Quebec*), *Newfoundland* and *Ceylon*—entered service, followed by the 'Minotaurs' and lastly the 'Tigers' which completed the family line.

HULL ALTERATIONS

Figure 1 illustrates the initial work on the conversion of *Tiger* into any of the three earlier classes. Don't be afraid of the gaping holes which appear in the deck as you cut away all the deck houses—these are simply plugged with Plastikard and the scars largely disappear with subsequent construction. It is particularly important to remodel the port and starboard waists so that they are clear along each side ready to accommodate the torpedo tubes. Note the new positions for the seaboats—further aft than in *Tiger*. Also, saw off the raised islands abreast the forward funnel and remove (and keep) all the locating pips and the life raft mouldings.

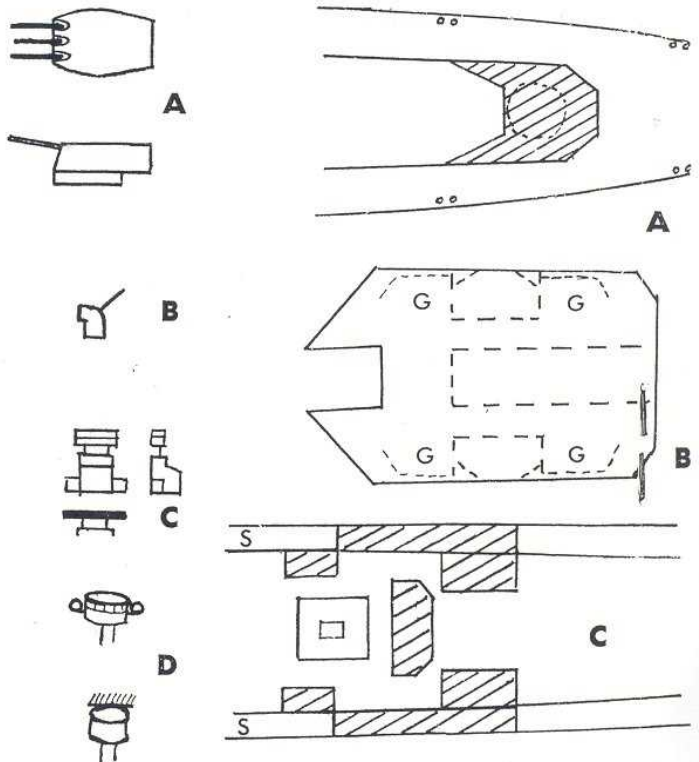
In 1B, I have given a full-size template for the 4-inch gun deck; the square cut-out section fits round the square base of the after funnel. Deckhouses from 1/8-inch strip wood are then fitted where indicated. Two shapes are shown for these port and starboard deckhouses—some ships had them more or less rectangular in shape, though most had them considerably cut-away outboard, increasing the arc of fire of the 4-inch mountings.



Strips of Plastikard 1/8-inch deep are used to form bulwarks round the 4-inch gun positions, though these bulwarks were not fitted in 'Mauritius' class ships.

THE SUPERSTRUCTURE

Having completed the basic work in the hull—and this is the longest part of the job—turn to Figure 2, where I have sketched and summarised the main features of the forward superstructures in all three classes. Airfix part 4—the original *Tiger* bridge—serves as the bridge in all these conversions but turned back to front and with the balcony sawn off. It also needs reducing to an overall length of 30 mm. A rounded ('Mauritius' class) or semi-rounded ('Uganda' class) bridge front is made by curving a 30 mm x 10 mm strip of Plastikard around the front of the plastic bridge. For the 'Minotaur' bridge you simply stick a square piece of Plastikard across the front.





HMS JAMAICA in World War 2, when she still carried a fourth 6-inch turret in X position. At this period she had two cranes and carried her motor-boats on the after superstructure. (Photo by Real Photographs Co Ltd.)

All that remains is a 'wind baffle' made from a $\frac{1}{8}$ -inch strip of Plastikard stuck round the top edge of the bridge. 'Minotaurs' also require bridge wings just forward of the 2pdr mounting positioned as in Figure 1C. Notice the additional deck height for the 'Mauritius' class—these ships were originally designed to carry aircraft and the hangars were situated in this forward superstructure. If you are modelling a ship (such as *Gambia*) of the mid-1950s period with modified covered bridge, then a simple Plastikard 'roof' suffices to represent this feature.

'Minotaur' class ships have the prominent cut-away 'step' abreast the forward funnel, so this is an additional modification you must make to the deck moulding, filling in the gap once again with Plastikard. To compensate for this, the forward funnel needs lengthening and I found that this could be done very effectively by binding the base with gummed parcel strip.

Tripod masts can be made from thick bristles and set to a height of about 1 $\frac{1}{2}$ inches above main deck level. The 'Minotaurs' had well splayed tripods with the legs coming abreast the funnel, while *Quebec* had a much truncated affair without a topmast. Note that the legs of the main (ie aftermost) masts lead forward and that none of these tripod masts has any rake whatever. The foremast should be stepped in a scrap of $\frac{1}{8}$ -inch stripwood across the back of the bridge. Some of the modernised ships—*Newfoundland*, *Ceylon* and *Mysore*—have lattice masts and these can be made from mainmasts supplied in the *Tiger* kit. The foremast requires a cheese-shaped aerial at the top and a parabolic aerial (from the kit) on a platform as shown in Figure 2B. A gaff for the ensign and yards are the main modifications for the mainmast. *Ceylon* is the odd ship out in the lattice mast fraternity—she retained her tripod mainmast after modernisation.

Other modifications and additions are the removal of the
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Fig 3 (left drawings): A—Triple 6-inch turrets—make from balsa. Three per ship except 'Mauritius' class as built, which carried four. B—Twin 4-inch mountings—make from balsa or use mountings from WARSPITE kit. Four per ship except 'Minotaur' class which mount five. C—Main director tower—make from balsa or scrap plastic. Earlier World War 2 type of radar shown below. D—High angle directors. Upper—large type as fitted in NEWFOUNDLAND, SUPERB, ONTARIO, MYSORE. Lower—smaller type fitted to remainder. Make from largest diameter plastic sprue. Radar nacelles on larger director made from deck locating pips. Fig 1 (right drawings): A—Shortening the after shelter deck—fill gap and bulkheads with Plastikard. B—Full-size template for 4-inch gun deck. Dotted lines indicate positions of deckhouses and position of bulwarks round guns in 'Uganda' and 'Minotaur' classes; these bulwarks are omitted in 'Mauritius' class. (G—positions of 4-inch mountings.) C—Midship alterations—remove all shaded parts and plug holes with Plastikard or card. Leave waist clear port and starboard for torpedo tubes. (S—re-site seaboats (whalers) here.)

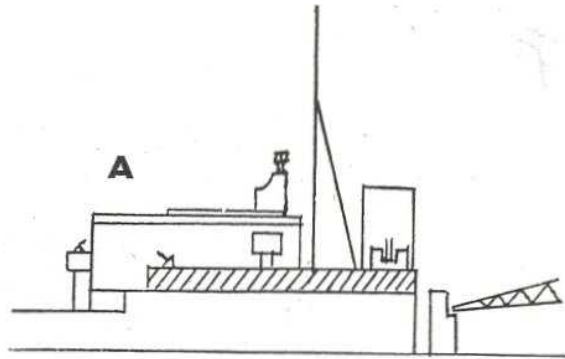


Fig 2A: 'Mauritius' class. Build up superstructure (shaded) with $\frac{1}{8}$ inch stripwood. Quadruple 2pdr (later, twin 40 mm) abreast funnels. JAMAICA, GAMBIA, BERMUDA, refitted mid-1950s with covered bridges. Rounded bridge front.

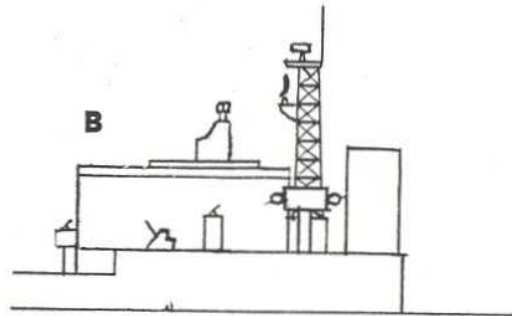


Fig 2B: 'Uganda' class. NEWFOUNDLAND after 1953 modernisation. Lattice foremast; large high angle directors abreast mast. Small barrage directors and twin 40 mm abreast bridge. Square bridge front with rounded corners. CEYLON after 1955 modernisation similar but with covered bridge and smaller high angle directors. QUEBEC (RCN ex-'Uganda') with tripod mast but no topmast, otherwise similar. Drawing also represents Indian Navy MYSORE (ex-NIGERIA) after 1956 refit.

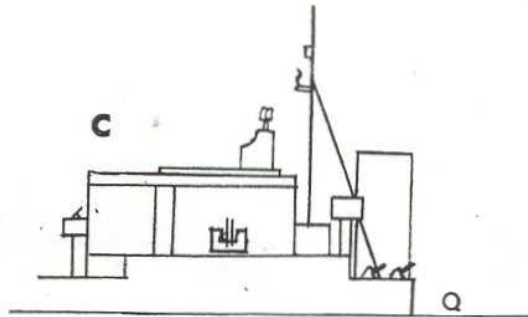


Fig 2C: 'Minotaur' class. SWIFTSURE with quadruple 2pdr (later, twin 40 mm) abreast bridge. SUPERB and ONTARIO (RCN ex-MINOTAUR) similar but forward barrage director comes almost to top of bridge front. Notice cut-away 'step' abreast funnels Q—position port and starboard of additional 40 mm or 2pdr. carried in some ships, eg QUEBEC, NIGERIA.

funnel cowls which *Tiger* sports—the earlier three classes didn't have them—and the provision of barrage directors from plastic sprues. Crane and boats are fitted as in *Tiger*—with the exception of the seaboats which I have already mentioned. As built, however, the 'Mauritius' class ships had *two* cranes set one abreast each side of the after funnel and normally trained forward. Since these vessels then carried a catapult between the funnels, the boats were stowed in the after superstructure. However, the aircraft and catapults were removed early in World War 2 and the class finished up with one crane and the boats carried between the funnels in the same way as the later ships. Nonetheless, this earlier arrangement makes an interesting variation to bear in mind for a model.

After superstructure is much more varied, but generally speaking Airfix part 8 suffices for the 'Minotaurs' and 'Ugandas' and part 6 for the 'Mauritius' class. *Newfoundland* and *Mysore* as modernised, however, had a very 'cleaned up' superstructure aft, best represented by 50 mm x 10 mm strips of 1/8-inch stripwood, shaped aft to follow the line of the after shelter deck.

ARMAMENT

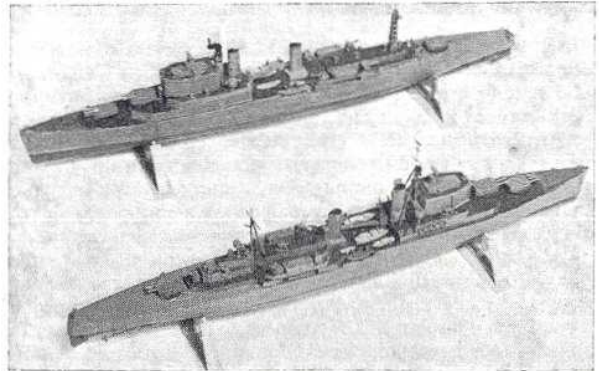
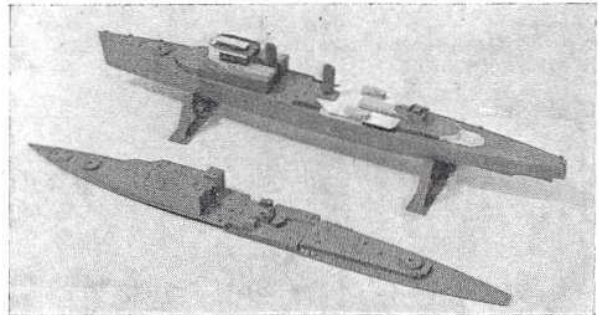
Reference to Figure 3 gives most of the details for the guns and directors. I'm afraid that there is no quick way out for the triple 6-inch turrets, the modern automatic type supplied in the *Tiger* kit being the wrong shape even for adaptation. Note that the centre barrel appears shorter than the outer pair, since it is set further back in the turret. Bristles are suitable for gun barrels, using the 6-inch barrels from the kit as a guide to correct diameter. As built, the 'Mauritius' class had four triple turrets in A, B, X, and Y positions but X turret was subsequently removed to make way for 2pdr AA guns. *Nigeria*, however retained the fourth turret until as recently as 1956. The 'Minotaurs' and 'Ugandas' were built with only three 6-inch turrets, the 'Ugandas' having 2pdrs in X position, and the 'Minotaurs' a fifth twin 4-inch mounting.

Small AA guns, whether quadruple 2pdrs, twin 40 mm, or single 40 mm are easily made from plastic scrap. The *Cossack* kit has a quadruple 2pdr which serves as a pattern for home built versions, while I find that 40 mm Bofors guns, both twin and single, can be fashioned from the life raft mouldings, using Nylon toothbrush bristles for gun barrels.

Finally we come to the triple torpedo mountings which are located beneath the four inch gun deck. I use the tubes from the *Campbeltown* kit for this purpose, *Campbeltown* being cheap enough to expend solely as a source of small parts. The modernised ships, such as *Newfoundland*, had the tubes removed. 'Mauritius' class cruisers had the gun deck supported by stanchions fore and aft of the tubes, and these can be made from the yardarms in the *Tiger* kit. In the two later classes, however, the sides were plated in adjacent to the tube space, so scraps of Plastikard must be utilised again here.

One last characteristic of all these ships were the Carley life rafts hung along the side of the forward superstructure. The number of these varied from ship to ship and, indeed, sometimes from refit to refit. They are most easily made, however, from slices of Biro tube squashed to an oval shape with a pair of pliers.

Unfortunately, space precludes any more detailed account of these cruisers—a fully tabulated history of the three classes would take up this entire edition of AIRFIX MAGAZINE! However I have attempted to give enough information to enable you to try your hand at two or three conversions representative of the main differences between the various ships. For more information I commend the invaluable 'Jane's Fighting Ships', any edition of which since about 1942 will give pictures and scale drawings of the ships in question. These earlier editions of



Uncompleted model of HMS KENYA (top) showing the Plastikard and stripwood additions required in these conversions. The original *Tiger* deck moulding is shown alongside for comparison. Bottom picture shows models of HMS NEWFOUNDLAND after her 1953 modernisation (top) and HMS SWIFTSURE (bottom). Notice the lattice masts and low after superstructure in NEWFOUNDLAND, and the Carley rafts and torpedo tubes in SWIFTSURE.

'Jane', incidentally, are usually to be found in the bigger reference libraries.

No two ships in either the 'Mauritius', 'Uganda', or 'Minotaur' classes were exactly alike—they all varied to some extent in disposition of AA armament, and were often altered structurally during refits. So the scope for modellers is enormous, giving the enthusiast more than 14 conversion possibilities from just the one *Tiger* kit.