

PROFILE

Modifications to the Airfix Defiant kit

PROFILE this month makes a break from its usual styling, and considers possible finishes for the Airfix model of the Defiant, along with modifications that the inexperienced, careful modeller may make in order to produce a simple and most attractive kit conversion.

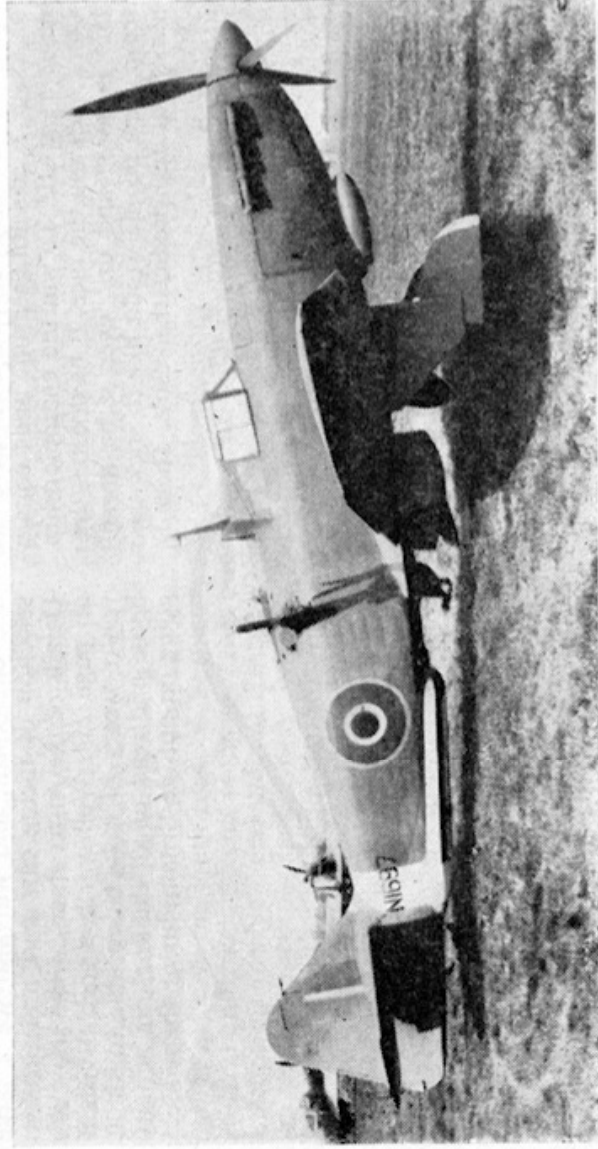
The prototype Defiant K8310 appeared in August 1937 in all-silver finish and differed little externally from production aircraft that followed, so the Airfix model can easily be completed as K8310. It had exhaust stacks, spinner and anti-dazzle panel black. Initially it had a rudder serial, removed when the rudder area was slightly increased. Red-white-blue roundels were applied to the fuselage sides as well as above and below the wings, under which K8310 appeared in black. Provision for a retractable tailwheel resulted in a small bulbous fairing under the rear of the fuselage of the prototype.

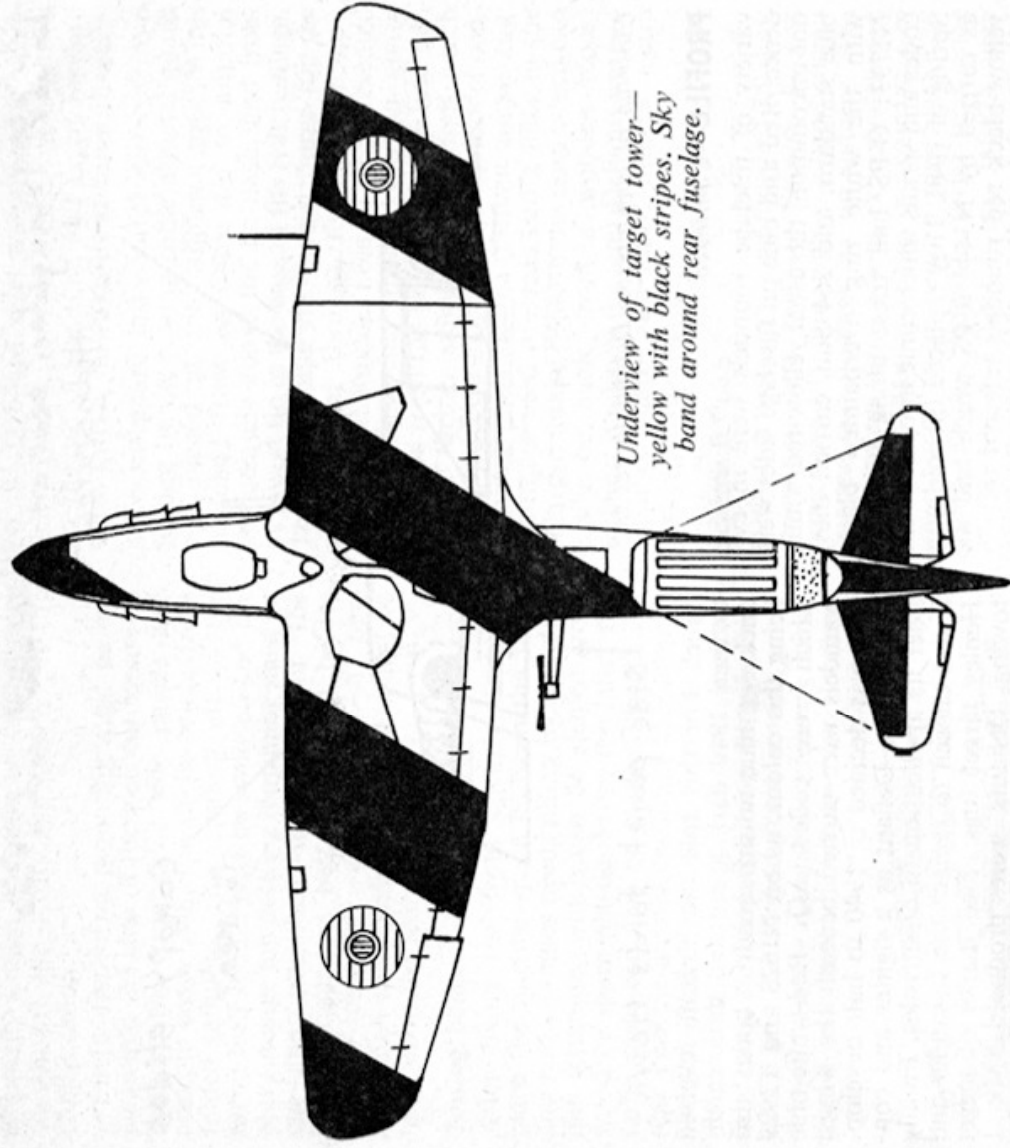
L6950, the first production aircraft, was initially flown on July 30, 1939. It had dark earth and dark green uppersurfaces with the undersurface of the port wing black and the remainder of the undersurfaces

white. Red and blue roundels appeared on the sides and above the wings. On subsequent aircraft the fuselage undersurfaces aft and forward of the wings were silver, but a reversion to the original colouring came at the end of 1939 when the undersurfaces became half black-half white. L6950, being of pre-war vintage, had underwing serials in black or white in 2 ft. 6 in. figures. A set of small bombs from the Airfix Lysander can be hung beneath the outer wing panels of the model, since L6950 underwent trials carrying light bombs.

L6957 entered squadron service in December 1939, and acquired the medium grey squadron code letters T:PS with the "PS" ahead of the roundels on either side of the fuselage. By this time a white band had been added to the fuselage roundel. The camouflage pattern applied to this machine was "Scheme B" which is well illustrated in the September 1961 issue of *Air Pictorial*. Alternately produced aircraft were painted in a mirror image of this pattern, this "B Scheme" eventually being the standard styling.

Before the Defiants became operational in May 1940, their fuselage roundels acquired their yellow surround, fin stripes had been awarded and the pale blue undersurfaces carried red-white-blue roundels. Since these markings were applied to L6957, which by now had a pale blue spinner, she makes an ideal model topic to illustrate the changes in camouflage and markings. L6957 was, incidentally, one of the Defiants of 264 Sqn. which participated in the famous engagements of May 29, 1940, when the squadron claimed *Defiant TT.Mk.3 N1697, showing position of winch.*





Underview of target tower—yellow with black stripes. Sky band around rear fuselage.

to have destroyed 37 enemy aircraft.

Simple modifications render the Airfix model ready for patrol or battle. Carefully cut the cockpit canopy, and fix the windscreen in its standard position. The remainder can then be fixed over the fairing between the turret and the cockpit, leaving the latter open to allow for any detail added there to be seen clearly. In this style many Defiants were to be seen flying in the hot summer days of 1940. For combat, the canopy was closed and the upper half of the fairing between cockpit and turret lowered at its aft end. The combing aft of the turret was similarly retracted to allow for gun traverse.

Pin or bristle will do

Immediately outboard of the port wing landing light was placed the pitot head for which a pin or bristle will suffice. The landing light in the leading edge of each wing was fitted at the start of each wing outer panel.

In August 1940 sky undersurfaces were adopted by the Defiant, of which Fighter Command then had two squadrons which, following numerous misfortunes, withdrew

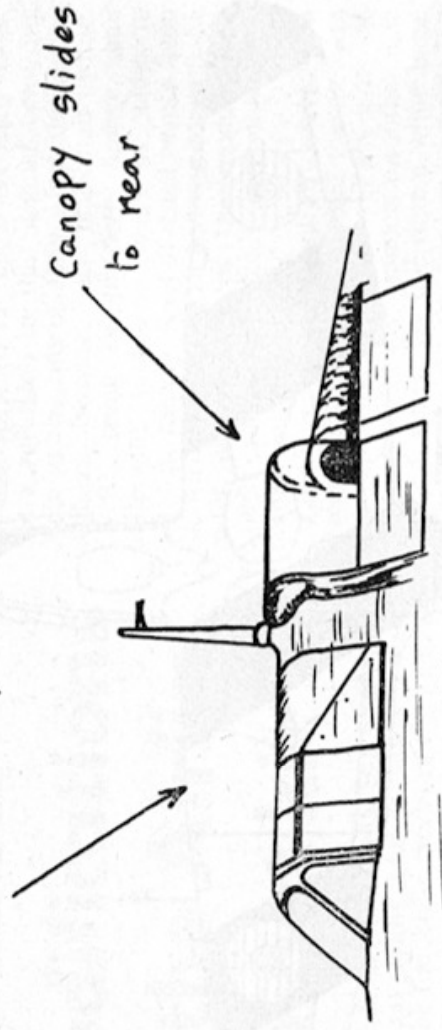
to engage in night fighting. For this, the Defiants received an overall soot-black finish. The winter weather played havoc with the paintwork, and the drab aircraft soon displayed a patchy super-matt finish. This can easily be produced on the model by finishing it with a mixture of matt black paint, turps substitute and Humbrol flattening agent.

This mixture is also useful for the production of exhaust and oil stains without which models always look so lifeless. On the night fighter Defiants the exhaust gas stains were grey, of course. Matt varnish will go a good way to reduce the gloss of the roundel transfers, although discerning modellers will want to change the colour of these to a more correct tone. It is quite easy to overpaint the transfers on their backing with Humbrol paint mixed to the correct shade which is, of course, an easier way to seek correction than attempting to overpaint them once they are applied on the model.

During the winter of 1940-41, when the Defiants were most active as night fighters, a

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lower triangular section on starboard side transparent



side panel folds down

Close-up of cockpits on Defiant target tug.

PROFILE—Continued

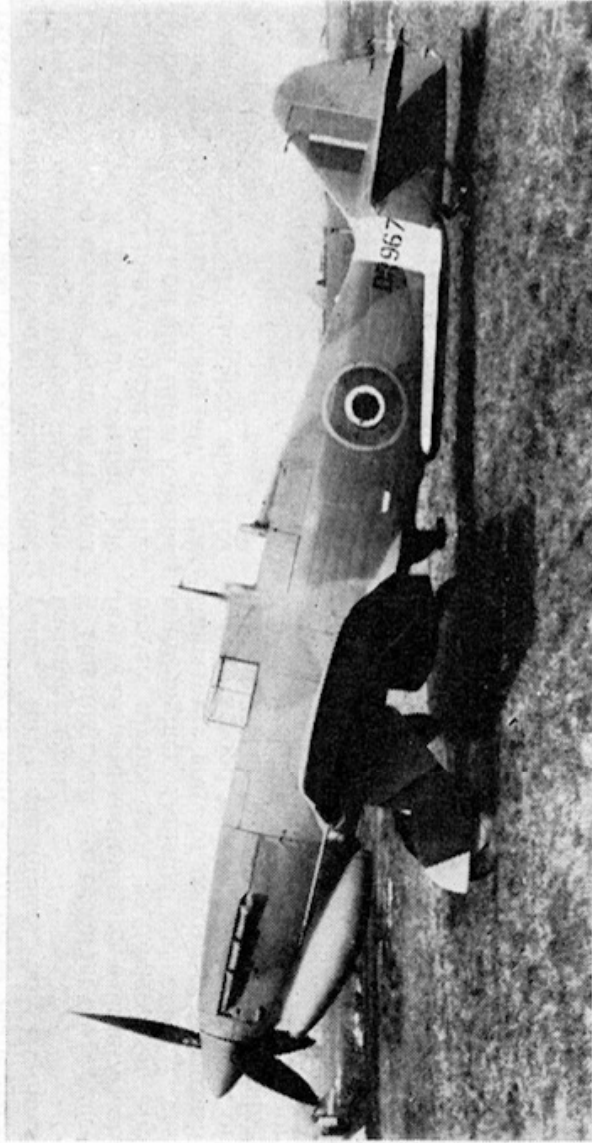
variety of fuselage roundels were in evidence. Red and blue on fuselage sides were not uncommon, the usual yellow-red-white-blue standard, and 264 Sqn. carried these with the white ring overpainted black. N1733: O-PS had these along with red codes and serials which came into use in the Spring of 1940. They replaced the mid-grey as carried by N3444:R-PS which had the yellow-black red roundels referred to.

Following their replacement by Beau-fighters and Mosquitos in the night fighting role, a handful of Defiants found new front-line employment for nine months in 1942 as air-sea rescue aircraft. For this duty they carried an "M" Type dinghy packed in a tubular container under either outer wing

panel. For this role the aircraft reverted to their 1940 dark green and dark earth/duck egg blue finish, squadron codes also being this colour, as on N1623 and T3929 which were coded AQ. Red-white-blue roundels were carried beneath the wings.

It was decided in 1940 to halt development of the Defiant as a fighter and consider its application to other roles. Finally it was chosen to replace the Lysander and Henley target tugs. Two marks of target towing Defiants were produced. Mk 1 target tugs were new aircraft built for this unexciting yet most important role, whereas the T.T. Mk. 3s were fighters converted into target tugs. Both marks were

Defiant TT.Mk.1 DR967, with tropical filter under the nose.



externally similar and offer an opportunity to convert the Airfix kit into target tug configuration.

Firstly the turret mounting must be cut away and the side of the well cut square to support the rectangular side panels and cockpit cover, which can be made from folded celluloid. The combing aft of the turret well should next be removed and the rear fuselage top decking remaining must be cut and smoothed flat. Both of the modifications are best undertaken before fuselage assembly commences. A new combing—easily shaped in wood—must be fixed upon the rear fuselage.

Towing hook

After fixing the front cockpit cover in place the narrow space between the front and rear canopies needs filling by a bridge-like structure, which can be shaped from wood or spare plastic. From the latter the radio mast can also be made. Beneath the rear cockpit should be fitted the support and the hook from which the cable to the drogue may be fastened. Beneath the rear fuselage was fitted the long drogue box, which can be shaped from wood.

On a tapering tubular structure, protruding immediately aft of the rear cockpit



Nose of tropicalised version, with revised exhaust stacks.

on its starboard side, was placed a wind-driven winch. Its four blades were placed on the tip of the tube and faced forward when in use, downwards at other times.

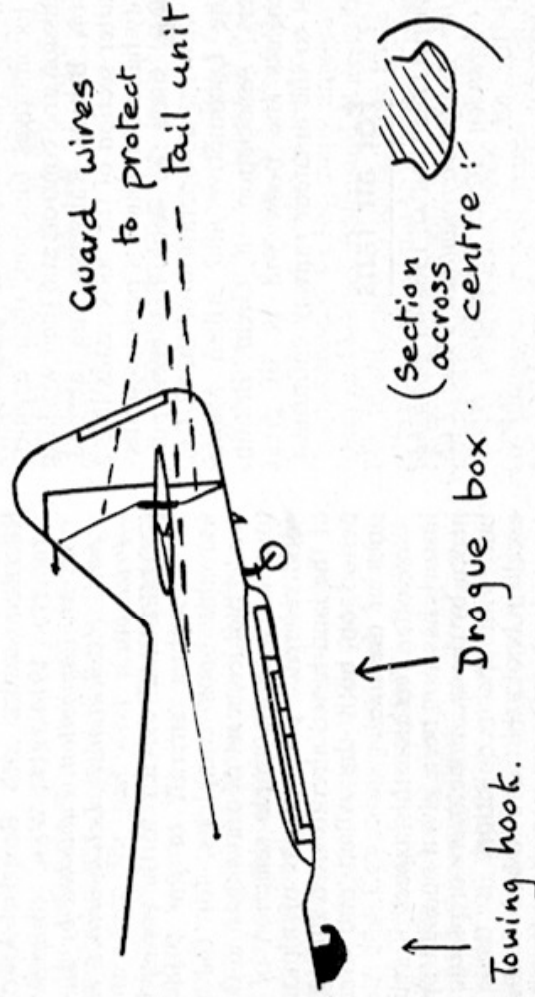
To safeguard tail control surfaces from fouling by the towing cable a metal guard was placed at the tailplane tips. Wires stretched from its upper tip to a point immediately above the fin flash, and from its lowest tip to the base of the rear fuselage. The bar holding the special frame for the wires passed through the elevator tips. Wires on the model need to be represented by extremely fine threads. Further guard wires led from the tailplane to the fuselage.

Two further simple modifications which will produce a more interesting model concern the nose of the Defiant target tug. Examples used overseas had a filter in the enlarged intake beneath the nose which can easily be made from a wooden block. Exhaust stacks on the later Defiants were of modified shape with flared orifices, again easy to make.

Scheme B finish

Defiant target tugs were finished in dark green and dark earth to Scheme B, and carried the 1 ft. 6 in. wide sky band encircling the rear fuselage, as on fighters. The rear fuselage serial was black, roundels and fin flashes standard. The undersurfaces of these aircraft were painted with black and yellow stripes. Suitable serial and code letters for a TT.Mk.1 are DR878 with M1:E in white (M1 ahead). Amongst the TT.3s were L6954 of 2 AGS Dalcross, with "72" in white ahead of roundel, and N3313: G1 (white) of No. 2 (0) AFU Millom.

M. J. F. Bowyer.



Details of towing hook, drogue box and tail unit guard wires.