
BRITISH AVIATION COLOURS OF WORLD WAR TWO

The Official Camouflage, Colours and Markings
of RAF Aircraft, 1939-45



With facsimile
paint chart

British Aviation Colours of World War Two

**The Official Camouflage,
Colours & Markings of RAF
aircraft, 1939-1945**



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Colour Chart

MAP Standard Aircraft Colours 1939-1945

Foreword

by J. M. Bruce, Keeper of Aircraft and Research Studies,
Royal Air Force Museum, Hendon

Military aircraft have worn markings since before the war of 1914–18. The demands of that war urgently required the evolution of unit markings and camouflage for use by day and night; and even dazzle-painting was explored.

Between the wars, British military aircraft were mostly silver or, in the case of night bombers, Nivo; the machines flown by fighter squadrons and the Fleet Air Arm were enlivened by colourful unit markings. But as the Nazi threat grew and the RAF hastily expanded, camouflage came into general use, accompanied by drab but informative unit identification codes.

In an expanding RAF and Fleet Air Arm, standard methods of applying aircraft finishes and markings had to be evolved. These were largely set down in Air Ministry Orders and Command Orders throughout the war, but in 1944 the basic requirements and instructions were encapsulated in Air Publication 2656A. This was issued as a series of Amendment Lists, a procedure that inevitably produced a certain amount of repetition.

This reprint reproduces the basic relevant Air Ministry Orders that were issued before and during the 1939–45 war, together with those sections of AP 2656A likely to be of most interest to historians, artists and modelmakers. The user of this fascinating document is advised to treat it with a certain amount of caution, however, and to use it intelligently and with care, especially if he wishes to apply detailed markings to a model aircraft. Not all of the schemes herein delineated were used, nor were all the instructions necessarily followed to the letter in practice, despite the fact that this was intended to be the official word on these matters.

For the first time this historic reference material is now made generally available, and publication of this reprint represents a major event for the devotees of military aircraft.

1939

AMO A. 154/39 to AMO A. 298/39

A.154.—Identification Markings on Aircraft of Operational Units and Marking of Unit Equipment

(27.4.39.)

1. It has been decided to adopt a standard system of identification marking on aircraft of operational squadrons throughout the service, at home and abroad, and on those items of aircraft equipment which are liable to be taken into the air.

2. The system is to be adopted forthwith.

3. No markings other than those described hereunder are to be permitted in operational units.

Aircraft identification markings.

4. The identification markings to be carried on aircraft are as follows :—

Type of Marking.	Detail.	Location.
(i) National marking ... (See note regarding fighter aircraft).	(i) A blue ring surrounding a red centre.	On both sides of the fuselage and on upper surface of the wing tips.
	(ii) A blue ring surrounding a white ring and the latter surrounding a red centre.	On the lower surface of the wing tips.
(ii) Code letters to indicate squadrons and identity of individual aircraft.	(i) Two letters to indicate number of squadron.	Either forward or aft of the national marking on both sides of the fuselage.
	(ii) One letter to indicate individual aircraft.	On the other side of the aircraft national marking on both sides of the fuselage.
(iii) Squadron badge ...	As approved by H.M. The King.	As laid down in Air Ministry Orders.
(iv) Aircraft number ...	The Air Ministry letter and number allocated to the aircraft.	Underneath the lower planes and at the rear end of the fuselage.

Note.—Fighter aircraft :—

(i) are not to carry the national marking on the lower surface of the wing tips ;

(ii) the lower surface of the starboard plane and half the under surface of fuselage is to be painted white. The corresponding port side is to be painted black.

5. The code letters allotted to squadrons are shown at the appendix to this order. They are to be painted in grey paint (Stores Ref. 33B/157). The letters are to be 48 in. high and are to be made up of strokes 6 in. in width. Smaller letters are to be used only when the space available on the fuselage makes such a course unavoidable.

6. Squadron badges may be carried if desired on aircraft but they must be removable at short notice without leaving any trace.

Marking of unit equipment.

7. The equipment of one squadron will be distinguished from that of another at the same station by the system of colour marking described below.

8. Each squadron at a station is to be allotted a colour by the station commander. A band is to be painted on articles of squadron equipment in the colour allotted to the particular squadron. This colour system is to be standard at all stations, the colours to be used being white for the first squadron, green for the second, red for the third and yellow in the exceptional case of a fourth squadron at the same station.

9. *Aircraft equipment.*—In no circumstances is any removable article of aircraft equipment or any article which is carried in aircraft to be marked with the number of the squadron to which the item of equipment belongs.

10. *Flight equipment.*—The addition of flight and/or aircraft lettering on articles of squadron equipment including those items taken into the air is permissible. The colour used must conform to the colour allotted to the squadron by the station commander.

APPENDIX

<i>Squadron.</i>			<i>Code Letters.</i>	<i>Squadron.</i>			<i>Code Letters.</i>
No. 1	Squadron	...	NA	No. 5	„	...	QN
No. 2	„	...	KO	No. 6	„	...	XE
No. 3	„	...	OP	No. 7	„	...	LT
No. 4	„	...	FY	No. 8	„	...	YO

<i>Squadron</i>	<i>Code Letters</i>	<i>Squadron</i>	<i>Code Letters</i>
No. 9 Squadron ...	KA	No. 51 Squadron ...	UT
No. 10 " ...	PB	No. 52 " ...	MB
No. 11 " ...	OY	No. 53 " ...	TE
No. 12 " ...	QE	No. 54 " ...	DL
No. 13 " ...	AN	No. 55 " ...	GM
No. 14 " ...	BF	No. 56 " ...	LR
No. 15 " ...	EF	No. 57 " ...	EQ
No. 16 " ...	KJ	No. 58 " ...	BW
No. 17 " ...	UV	No. 59 " ...	PJ
No. 18 " ...	GU	No. 60 " ...	AD
No. 19 " ...	WZ	No. 61 " ...	LS
No. 20 " ...	PM	No. 62 " ...	JO
No. 21 " ...	JP	No. 63 " ...	NE
No. 22 " ...	VR	No. 64 " ...	XQ
No. 23 " ...	MS	No. 65 " ...	FZ
No. 24 " ...	ZK	No. 66 " ...	RB
No. 25 " ...	RX	No. 67 " ...	QT
No. 26 " ...	HL	No. 68 " ...	YA
No. 27 " ...	MY	No. 69 " ...	MJ
No. 28 " ...	US	No. 70 " ...	DU
No. 29 " ...	YB	No. 71 " ...	EL
No. 30 " ...	DP	No. 72 " ...	SD
No. 31 " ...	ZA	No. 73 " ...	HV
No. 32 " ...	KT	No. 74 " ...	JH
No. 33 " ...	TN	No. 75 " ...	FO
No. 34 " ...	LB	No. 76 " ...	NM
No. 35 " ...	WT	No. 77 " ...	ZL
No. 36 " ...	VU	No. 78 " ...	YY
No. 37 " ...	FJ	No. 79 " ...	AL
No. 38 " ...	NH	No. 80 " ...	GK
No. 39 " ...	SF	No. 81 " ...	WK
No. 40 " ...	OX	No. 82 " ...	OZ
No. 41 " ...	PN	No. 83 " ...	QQ
No. 42 " ...	QD	No. 84 " ...	UR
No. 43 " ...	NQ	No. 85 " ...	NO
No. 44 " ...	JW	No. 86 " ...	DE
No. 45 " ...	DD	No. 87 " ...	PD
No. 46 " ...	RJ	No. 88 " ...	HY
No. 47 " ...	EW	No. 89 " ...	LG
No. 48 " ...	ZW	No. 90 " ...	TW
No. 49 " ...	XU	No. 91 " ...	HQ
No. 50 " ...	QX	No. 92 " ...	GR

<i>Squadron.</i>	<i>Code Letters.</i>	<i>Squadron.</i>	<i>Code Letters</i>
No. 93 Squadron...	... RN	No. 135 Squadron...	... GO
No. 94 " ...	... ZG	No. 136 " ...	... XY
No. 95 " ...	... PX	No. 137 " ...	... TS
No. 96 " ...	... SJ	No. 138 " ...	... WO
No. 97 " ...	... MR	No. 139 " ...	... SY
No. 98 " ...	... OE	No. 140 " ...	... RM
No. 99 " ...	... VF	No. 141 " ...	... UD
No. 100 " ...	... RA	No. 142 " ...	... KB
No. 101 " ...	... LU	No. 143 " ...	... TK
No. 102 " ...	... TQ	No. 144 " ...	... NV
No. 103 " ...	... GV	No. 145 " ...	... SO
No. 104 " ...	... PO	No. 146 " ...	... YZ
No. 105 " ...	... MT	No. 147 " ...	... RT
No. 106 " ...	... XS	No. 148 " ...	... BS
No. 107 " ...	... BZ	No. 149 " ...	... LY
No. 108 " ...	... MF	No. 150 " ...	... DG
No. 109 " ...	... EH	No. 151 " ...	... GG
No. 110 " ...	... AY	No. 152 " ...	... YJ
No. 111 " ...	... TM	No. 153 " ...	... XZ
No. 112 " ...	... XO	No. 154 " ...	... KD
No. 113 " ...	... BT	No. 155 " ...	... FL
No. 114 " ...	... FD	No. 156 " ...	... TB
No. 115 " ...	... BK	No. 157 " ...	... VW
No. 116 " ...	... ZD	No. 158 " ...	... HT
No. 117 " ...	... EX	No. 159 " ...	... NS
No. 118 " ...	... RE	No. 160 " ...	... JJ
No. 119 " ...	... OM	No. 161 " ...	... AX
No. 120 " ...	... MX	No. 162 " ...	... KY
No. 121 " ...	... JY	No. 163 " ...	... NK
No. 122 " ...	... WM	No. 164 " ...	... OO
No. 123 " ...	... ZE	No. 165 " ...	... YP
No. 124 " ...	... PK	No. 166 " ...	... GB
No. 125 " ...	... FN	No. 167 " ...	... WJ
No. 126 " ...	... UN	No. 168 " ...	... XF
No. 127 " ...	... HF	No. 169 " ...	... JQ
No. 128 " ...	... DQ	No. 170 " ...	... HS
No. 129 " ...	... SS	No. 171 " ...	... RS
No. 130 " ...	... TX	No. 172 " ...	... LF
No. 131 " ...	... RK	No. 173 " ...	... TV
No. 132 " ...	... TD	No. 174 " ...	... RO
No. 133 " ...	... YR	No. 175 " ...	... GL
No. 134 " ...	... AA	No. 176 " ...	... AS

<i>Squadron.</i>	<i>Code Letters.</i>	<i>Squadron.</i>	<i>Code Letters.</i>
No. 177 Squadron ...	... QF	No. 220 Squadron ...	... HU
No. 178 " ...	... UL	No. 221 " ...	... VB
No. 179 " ...	... RH	No. 222 " ...	... UP
No. 180 " ...	... DR	No. 223 " ...	... QR
No. 181 " ...	... WB	No. 224 " ...	... PW
No. 182 " ...	... JT	No. 225 " ...	... LX
No. 183 " ...	... LN	No. 226 " ...	... KP
No. 184 " ...	... JM	No. 227 " ...	... BU
No. 185 " ...	... ZM	No. 228 " ...	... TO
No. 186 " ...	... MK	No. 229 " ...	... DB
No. 187 " ...	... GP	No. 230 " ...	... FV
No. 188 " ...	... XD	No. 231 " ...	... KR
No. 189 " ...	... LM	No. 232 " ...	... XN
No. 190 " ...	... JB	No. 233 " ...	... EY
No. 191 " ...	... EV	No. 234 " ...	... AZ
No. 192 " ...	... QS	No. 235 " ...	... SU
No. 193 " ...	... RQ	No. 236 " ...	... FA
No. 194 " ...	... FW	No. 237 " ...	... MH
No. 195 " ...	... NP	No. 238 " ...	... TR
No. 196 " ...	... KG	No. 239 " ...	... XB
No. 197 " ...	... AG	No. 240 " ...	... SH
No. 198 " ...	... PU	No. 241 " ...	... EZ
No. 199 " ...	... DO	No. 242 " ...	... YD
No. 200 " ...	... UE	No. 243 " ...	... NX
No. 201 " ...	... VQ	No. 244 " ...	... VM
No. 202 " ...	... JU	No. 245 " ...	... DX
No. 203 " ...	... PP	No. 246 " ...	... MP
No. 204 " ...	... RF	No. 247 " ...	... HP
No. 205 " ...	... KM	No. 248 " ...	... QK
No. 206 " ...	... WD	No. 249 " ...	... VY
No. 207 " ...	... NJ	No. 250 " ...	... YE
No. 208 " ...	... GA	No. 251 " ...	... FF
No. 209 " ...	... FK	No. 252 " ...	... GW
No. 210 " ...	... VG	No. 253 " ...	... TL
No. 211 " ...	... LJ	No. 254 " ...	... HJ
No. 212 " ...	... QB	No. 255 " ...	... BY
No. 213 " ...	... AK	No. 256 " ...	... SZ
No. 214 " ...	... UX	No. 257 " ...	... DT
No. 215 " ...	... BH	No. 258 " ...	... FH
No. 216 " ...	... VT	No. 259 " ...	... VP
No. 217 " ...	... YQ	No. 260 " ...	... OB
No. 218 " ...	... SV	No. 261 " ...	... WY
No. 219 " ...	... AM	No. 262 " ...	... QY

<i>Squadron</i>	<i>Code Letters</i>	<i>Squadron</i>	<i>Code Letters</i>
No. 263 Squadron ...	SK	No. 306 Squadron ...	HK
No. 264 " ...	WA	No. 307 " ...	VK
No. 265 " ...	KU	No. 308 " ...	BM
No. 266 " ...	UO	No. 309 " ...	XV
No. 267 " ...	AO	No. 310 " ...	UG
No. 268 " ...	JN	No. 311 " ...	HD
No. 269 " ...	KL	No. 312 " ...	KW
No. 270 " ...	WP	No. 313 " ...	LH
No. 271 " ...	ZJ	No. 314 " ...	UY
No. 272 " ...	SM	No. 315 " ...	OG
No. 273 " ...	HH	No. 316 " ...	NL
No. 274 " ...	MU	No. 317 " ...	WU
No. 275 " ...	WS	No. 318 " ...	XP
No. 276 " ...	QM	No. 319 " ...	VE
No. 277 " ...	TP	No. 320 " ...	SP
No. 278 " ...	RY	No. 321 " ...	JS
No. 279 " ...	AU	No. 322 " ...	ZQ
No. 280 " ...	FX	No. 323 " ...	GN
No. 281 " ...	SR	No. 324 " ...	PQ
No. 282 " ...	VA	No. 325 " ...	EA
No. 283 " ...	JV	No. 326 " ...	QU
No. 284 " ...	BE	No. 327 " ...	LP
No. 285 " ...	GH	No. 328 " ...	MN
No. 286 " ...	QL	No. 329 " ...	OA
No. 287 " ...	YV	No. 330 " ...	KE
No. 288 " ...	VV	No. 331 " ...	LD
No. 289 " ...	TT	No. 332 " ...	WW
No. 290 " ...	FT	No. 333 " ...	VN
No. 291 " ...	MM	No. 334 " ...	BJ
No. 292 " ...	UZ	No. 335 " ...	XT
No. 293 " ...	XJ	No. 336 " ...	ZP
No. 294 " ...	AF	No. 337 " ...	OK
No. 295 " ...	HX	No. 338 " ...	ML
No. 296 " ...	KZ	No. 339 " ...	KN
No. 297 " ...	GS	No. 340 " ...	YK
No. 298 " ...	QH	No. 341 " ...	PL
No. 299 " ...	AT	No. 342 " ...	LK
No. 300 " ...	ZN	No. 343 " ...	ND
No. 301 " ...	MW	No. 344 " ...	GT
No. 302 " ...	EG	No. 345 " ...	AQ
No. 303 " ...	NN	No. 346 " ...	XL
No. 304 " ...	UB	No. 347 " ...	BB
No. 305 " ...	BV	No. 348 " ...	FR

No. 349 Squadron...	...	OS	No. 614 Squadron...	...	YX
No. 350	„	YM	No. 615	„	RR
No. 500	„	SQ	No. 616	„	QJ
No. 501	„	ZH	No. 617	„	MZ
No. 502	„	KQ	No. 618	„	BN
No. 503	„	VJ	No. 619	„	KV
No. 504	„	AW	No. 620	„	TF
No. 505	„	YF	No. 621	„	ER
No. 506	„	FS	No. 622	„	UF
No. 507	„	GX	No. 623	„	ON
No. 508	„	DY	No. 624	„	KK
No. 509	„	BQ	No. 625	„	NU
No. 510	„	RG	No. 626	„	SG
No. 511	„	SN	No. 627	„	WX
No. 512	„	UQ	No. 628	„	ES
No. 513	„	RZ	No. 629	„	LQ
No. 514	„	OV	No. 630	„	BO
No. 515	„	YW	No. 631	„	XX
No. 516	„	PF	No. 632	„	LO
No. 517	„	SW	No. 633	„	AE
No. 518	„	FM	No. 634	„	DS
No. 519	„	BP	No. 635	„	NB
No. 520	„	JL	No. 636	„	VZ
No. 600	„	MV	No. 637	„	UK
No. 601	„	YN	No. 638	„	PZ
No. 602	„	ZT	No. 639	„	KX
No. 603	„	RL	No. 640	„	XA
No. 604	„	WQ	No. 641	„	EU
No. 605	„	HE	No. 642	„	MQ
No. 606	„	BG	No. 643	„	QZ
No. 607	„	LW	No. 644	„	FE
No. 608	„	PG	No. 645	„	KF
No. 609	„	BL	No. 646	„	YG
No. 610	„	JE	No. 647	„	ZS
No. 611	„	GZ	No. 648	„	YT
No. 612	„	DJ	No. 649	„	HA
No. 613	„	ZR	No. 650	„	MA

A.298.—Identification Markings on Aircraft of Operational Units and Marking of Unit Equipment

(3.8.39.)

It has been decided that instructions regarding identification markings on aircraft of operational units, contained in A.M.O. A.154/39, para. 4, are to apply in future to all R.A.F. aircraft. Instructions

regarding the marking of unit equipment will continue to apply to units in operational commands only. A.M.O. A.154/39 is accordingly amended as follows :—

Title. *Delete* existing title and *substitute* the following :—

“Identification Markings on Aircraft and Marking of Unit Equipment in Operational Commands”.

Para. 1. *Delete* this paragraph and *substitute* the following :—

“1. It has been decided to adopt a standard system of identification markings on aircraft throughout the service, at home and abroad, and on those items of unit equipment in operational commands which are liable to be taken into the air.”

Para. 3, line 2. *Delete* “in operational units”.

Para. 4—Type of Marking—(iii). *Delete* “Squadron” and *substitute* “Unit”.

Para. 6, line 1. After “on aircraft” *insert* “of operational commands”.

(A.M.O. A.154/39, amended.)

1940/41

AMO A. 926/40 to AMO A. 687/41

A.926.—Aircraft Colouring and Recognition Markings

(12.12.40.)

1. The previous instructions regarding identification markings on aircraft, contained in A.M.O. 154/39, as amended by A.298/39 and A.520/39, are superseded by those contained in the following paragraphs and that order is accordingly cancelled. A further order dealing with the marking of unit equipment will be issued shortly.

2. These regulations apply to all R.A.F. aircraft at home and to aircraft flown, or shipped to overseas commands. They may be varied to meet operational requirements at the discretion of air officers commanding overseas commands, with Air Ministry approval.

3. These regulations come into force forthwith.

4. Markings other than those described in Part II below are not permitted and any aircraft carrying additional markings will be regarded with suspicion and may be treated as hostile.

I. CAMOUFLAGE COLOURING OF BRITISH AIRCRAFT, INCLUDING AMERICAN AND ALLIED TYPES IN USE BY BRITISH AIR FORCES

5. *Explanation of terms*

(i) *Temperate land scheme camouflage*.—This consists of two colours, DARK GREEN and DARK EARTH. Aircraft of the Middle East Command are coloured MIDSTONE in place of the DARK GREEN.

(ii) *Temperate sea scheme camouflage*.—This consists of two colours, DARK GREY and EXTRA DARK SEA GREY.

(iii) *Upper surfaces*.—These are all surfaces in plan view as seen from above, including the side surfaces of the fin and rudder. The upper surfaces of the lower wing and of the floats of biplanes and float-planes, are treated as upper surfaces. Interplane struts of biplanes are to be treated as upper surfaces, but the struts supporting the floats on seaplanes are to be camouflaged in the under-surface colours.

(iv) *Under-surfaces*.—These are the surfaces seen in the plan view from below. In the case of biplanes the under-surface of the upper wing is to be treated as an under-surface.

(v) *Side surfaces*.—These surfaces are included in the upper and under-surfaces as defined in sub-paras. (iii) and (iv) above in so far as they can be seen from above or below. Thus the upper part of the fuselage as far down as its widest point is included in the upper

surfaces colour scheme, and the lower part up to the widest point in the under-surface colour scheme.

Exception.—Aircraft whose under-surfaces are painted yellow (see para. 6 (ii) (b) below) are to have the upper surface camouflage extended downwards to cover the whole of the side surfaces of the fuselage.

Note.—Where two contrasting colours of upper and under-surfaces meet the colours are to be merged into one another so as not to form a definite line of demarcation. National markings are to be disposed suitably on the defined surfaces, as laid down for the type and rôle of the aircraft.

6. *Colour schemes of landplanes, except Fleet Air Arm aircraft.*—

(i) *Upper surfaces.*—The upper surfaces of all landplanes, except Fleet Air Arm and night fighter aircraft, but including target (pilotless) aircraft, are to be camouflaged in the temperate land scheme, but bomber aircraft with matt black under-surfaces may also have fins and rudder painted black. Night fighters are to be coloured matt black on all surfaces. National markings are not to be altered or obscured.

(ii) *Under-surfaces.*—The colouring of the under-surfaces is to be as follows :—

(a) *Operational aircraft.*—The under-surfaces of all operational aircraft are to be either matt black or duck-egg blue, at the discretion of commands, to meet operational requirements. The following classes of aircraft are to be produced with duck-egg blue (Sky Type "S") under-surfaces :—

Day fighters	Blenheim bombers
Army co-operation	Close support bombers
General reconnaissance	Troop carriers
Torpedo bombers	Bomber transports.

Day fighters are to be coloured black on the under-surface of the port wing, by aircraft storage units before delivery to Fighter Command units.

All bombers, except those referred to above, are to be produced with matt black under-surfaces. The black colouring is to be extended to include the side surfaces of the fins and rudders. Furthermore, so far as aircraft in this category are concerned, under-surfaces are to be interpreted as including the side surfaces up to the outline of the top quarter of the fuselage cross-section. The national markings on these surfaces are to be left unchanged and not obscured by the matt black finish.

(b) *Non-operational aircraft* (excluding those mentioned in sub-*paras. (c) to (f) below*) are to be coloured yellow. Service types of

aircraft in operational training units, air fighting development units, the Fighter Interception Unit and No. 2 School of Army Co-operation are to conform to the normal colour scheme for the aircraft rôle.

(c) *Target towing aircraft*.—Black inclined stripes are to be painted on a yellow background, the black stripes being 3 ft. wide with 6 ft. yellow spacing.

(d) *Anti-aircraft (searchlight) co-operation aircraft*.—Black.

(e) *Target (pilotless) aircraft*.—Duck-egg blue.

(f) *Ambulance aircraft*.—White.

(g) *Prototype and experimental aircraft, including private venture aircraft*.—Yellow. Operational aircraft temporarily on the strength of experimental establishments for short periods may retain their normal colourings.

7. *Colour schemes of flying boats, float planes, amphibians and Fleet Air Arm aircraft*.—(i) *Upper surfaces*.—Upper surfaces of all flying boats, float planes, amphibians and Fleet Air Arm aircraft are to be camouflaged in the temperate sea scheme, with the exception of target (pilotless) aircraft whose upper surfaces will be in the temperate land scheme.

(ii) *Under-surfaces*.—The under-surfaces of all flying boats, float planes, amphibians and Fleet Air Arm aircraft are to be painted duck-egg blue (Sky Type "S").

8. *Photographic Reconnaissance Unit and No. 421 Flight*.—Aircraft of the Photographic Reconnaissance Unit and No. 421 Flight are coloured and marked in accordance with operational requirements and the colour schemes need not conform to the standard system. Special arrangements are to be made by the Photographic Reconnaissance Unit and No. 421 Flight with Headquarters, Fighter Command, for the safety of these aircraft.

II. MARKINGS ON BRITISH AIRCRAFT, INCLUDING AMERICAN AND ALLIED TYPES IN USE BY BRITISH AIR FORCES

9. (i) *Upper surfaces*.—Red and blue roundels are to be carried on the upper surfaces of the wing-tips.

(ii) *Sides of fuselage*.—A red, white and blue roundel, surrounded by a yellow ring, is to be carried on each side of the fuselage.

(iii) *Fin markings*.—Vertical red, white and blue stripes (with red stripe leading). These stripes are to be 8 in. wide and 27 in. high, forming a rectangle of 27 in. by 24 in. or an area conforming to this as nearly as the size and shape of fin permits. The marking is to be placed on the fin against the hinge post immediately above the tail plane.

(iv) *Under-surfaces*.—Roundels are not to be carried on the under-surfaces of operational aircraft, except day fighters, which are to carry red, white and blue roundels. The roundel on the black surfaces of the

port wing of day fighters is to be surrounded by a yellow ring.

Anti-aircraft (searchlight) co-operation aircraft are to carry red, white and blue roundels surrounded by a yellow ring. Target (pilotless) aircraft may carry roundels on the under-surface at the discretion of the unit commanders for training purposes.

Non-operational aircraft with yellow under-surfaces, and ambulance aircraft are to carry red, white and blue roundels on the under-surfaces of the wing tips.

(v) *Registration number*.—The registration number allotted to the aircraft is to be carried by all aircraft at the rear end of the fuselage.

Note.—Training aircraft in the Flying Training Command and Technical Training Command also carry registration numbers on the under-surfaces of the wing.

(vi) *Code letters*.—Code letters are carried by Service types in operational units and operational training units. The two code letters and one letter to indicate individual aircraft are to be painted in grey paint and placed before and behind the roundels on the fuselage. The code and individual letters may be placed two before and one behind the roundels or *vice versa*. The letters are to be 48 in. high and are to be made up of strokes 6 in. in width. Smaller letters are to be used only when the space available on the fuselage makes such a course unavoidable.

(vii) *Special markings*.—Special markings may not be carried except—

(a) by aircraft of Allied Air Forces operating under Royal Air Force control, or when it is desired to distinguish particular or presentation aircraft; in such cases a marking not larger than 9 in. by 6 in., or an inscription in 2 in. grey letters, may be carried on the sides of the fuselage, forward of the trailing edge of the wing, on the authority of the command headquarters concerned;

(b) by non-operational types of aircraft with yellow under-surfaces, when large figures may be carried on the sides of the fuselage in order to meet training requirements;

(c) by ambulance aircraft which carry the "Geneva" Red Cross on a white disc of the same diameter as the yellow ring of the standard roundel, immediately aft of the roundel on each side of the fuselage;

(d) by day fighters which carry an 18 in. band of duck-egg blue (Sky Type "S") right round the fuselage, immediately forward of the tail plane, and have the airscrew spinner painted duck-egg blue (Sky Type "S").

(A.M.Os. A.154/39, A.298/39 and A.520/39 cancelled.)

A.30.—Aircraft Colouring and Recognition Markings

(9.1.41.)

A.M.O. A.926/40 is amended as follows :—

Paras. 1 to 4. *Delete* these paragraphs and *substitute* :—

“ 1. The following regulations apply to all service aircraft at home and overseas. Departures from, and additions to, the standard colour schemes and markings are not to be made without prior Air Ministry approval.

2. The provisions of this order, which take immediate effect, supersede those contained in all previous Air Ministry Orders on this subject.”

Para. 5, sub-para. (ii), line 2. *Delete* “ DARK GREY ” and *substitute* “ DARK SLATE GREY ”.

Para. 6.

Sub-para. (i), lines 4 and 5. After “ matt black ” *insert* “ (special night) ”.

Sub-para. (ii) (a).

Line 2. *Delete* “ matt ”.

Lines 14 and 20. After “ matt black ” *insert* “ (special night) ”.

(A.M.O. A.926/40 amended.)

A.157.—Aircraft Colouring and Recognition Markings

(6.3.41.)

A.M.O. A.926/40 is further amended as follows :—

Para. 5. *Delete* sub-paras. (iii), (iv) and (v) and Note, and *substitute* :—

“(iii) *Upper surfaces*.—This term comprises all surfaces visible in plan view from above, together with the following miscellaneous surfaces :—

(a) Top surfaces of the lower main planes of biplanes.

(b) Upper surfaces of floats of float-planes.

(c) Inter-plane struts on biplanes.

(iv) *Under-surfaces*.—This term comprises all surfaces visible in plan view from below, including the following :—

(a) Under-surfaces of the upper main planes of biplanes.

(b) Fixed undercarriage and float supporting struts.

(c) Wheel spats on fixed undercarriages and under-surfaces of floats.

(v) *Side surfaces*.—This term comprises all major surfaces visible in side view, including both sides of fins and rudders. Except as otherwise provided in this order, tail unit side surfaces are to be coloured as upper surfaces. All other side surfaces will be proportionately painted in the colour prescribed for upper and under-surfaces respectively, the dividing

line being determined by the relative amount of side surface visible when viewed from directly above or directly below. At this dividing line the two contrasting colours of upper and under surfaces are to be merged into one another so as not to form a definite line of demarcation.

Exception.—On aircraft the under-surfaces of which are painted yellow (see para. 6 (ii) (b) and (g) below) the upper surface camouflage is to be extended downwards to cover the whole of the side surfaces of the fuselage and, in addition, the wheel spats and undercarriage fairings of such aircraft with fixed undercarriages are to be camouflaged as for upper surfaces."

Para. 9, sub-para. (v). *Delete this sub-paragraph and Note and substitute :—*

"(v) *Registration number.*—(a) The registration number allotted to the aircraft is to be carried by all aircraft at the rear end of the fuselage.

(b) All elementary and advanced trainer type aircraft and operational type aircraft coloured yellow for training purposes, are to carry these numbers on the under-surfaces of the wings."

(A.M.O. A.926/40, as amended by A.30/41, amended.)

A.513.—Camouflage Colouring and Markings of Aircraft

(10.7.41.)

1. A.M.O. A.926/40, as amended by A.30/41 and A.157/41, is superseded by the instructions contained in this order, which take effect immediately.

I. CAMOUFLAGE AND COLOURING OF AIRCRAFT

2. (i) A series of five patterns has been prepared defining the various camouflage and colouring schemes. They are applicable to all aircraft irrespective of the peculiarities of each type.

(ii) Detailed blueprints conforming to the patterns are prepared by the manufacturers, showing the demarcation of the camouflage and colouring requirements for each type of aircraft. Copies of approved blueprints are printed and held by the Air Publication and Forms Store. In the interests of economy no general distribution is made and blueprints are issued only on demand for workshop use.

3. *R.A.F. landplanes.*—(i) *Operational aircraft for service at home.*—(a) Temperate land scheme camouflage, consisting of two colours, dark green and dark earth, is to be used for the upper surfaces of all aircraft, except those mentioned in sub-para. (c) below.

Bomber aircraft with matt black under-surfaces are to have their fins and rudders painted matt black.

(b) The under-surfaces of all aircraft, except those mentioned in sub-para. (c) below, are to be matt black, duck-egg blue (Sky Type "S") or a combination of these colours, at the discretion of commands.

(c) Night fighters are to be coloured matt black (special night) on all surfaces.

Aircraft of photographic reconnaissance units are to be coloured and marked in accordance with operational requirements, and the colour scheme need not conform to the standard system.

(ii) *Operational aircraft for service abroad.*—(a) The upper surfaces are to be camouflaged in accordance with the instructions contained in sub-para. (i) (a) above, or dark green and mid-stone, according to the nature of the country in which they are to operate.

(b) The under-surfaces are to be camouflaged in accordance with the instructions contained in sub-para. (i) (b) above.

(iii) *Training and communication aircraft.*—(a) The upper surfaces are to be camouflaged in accordance with the instructions contained in sub-para. (i) (a) above.

(b) The under-surfaces of aircraft, except fighter training aircraft, are to be coloured yellow.

The under-surfaces of fighter training aircraft are to be coloured in accordance with the instructions contained in sub-para. (i) (b) above.

(iv) *Target-towing aircraft.*—(a) The upper surfaces are to be camouflaged in accordance with instructions contained in sub-para. (i) (a) above.

(b) The under-surfaces are to be painted yellow with black inclined stripes, the black stripes being 3 ft. in width and at intervals of 6 ft.

(v) *Anti-aircraft (searchlight) co-operation aircraft.*—(a) The upper surfaces are to be camouflaged in accordance with the instructions contained in sub-para. (i) (a) above.

(b) The under-surfaces are to be painted black.

(vi) *Target aircraft.*—(a) The upper surfaces are to be camouflaged in accordance with the instructions contained in sub-para. (i) (a) above.

(b) The under-surfaces are to be painted duck-egg blue (Sky Type "S").

(vii) *Ambulance aircraft.*—(a) The upper surfaces are to be camouflaged in accordance with instructions contained in sub-para. (i) (a) above.

(b) The under-surfaces are to be painted white.

(viii) *Prototype and experimental aircraft.*—(a) The upper surfaces are to be camouflaged in accordance with the instructions contained in sub-para. (i) (a) above.

(b) The under-surfaces are to be painted yellow. Operational aircraft temporarily on the strength of experimental establishments may retain their normal colourings.

(ix) *Aircraft in miscellaneous units.*—Aircraft in operational training units, air fighting development units, fighter interception unit, special duty flights, fighter experimental establishment, No. 2 School of Army Co-operation and the Central Gunnery School, are to conform to the normal colour scheme for the aircraft rôle.

4. *R.A.F. flying-boats, float planes and amphibians.*—(i) Temperate sea scheme camouflage, consisting of two colours, dark slate grey, and extra dark sea grey, is to be used for the upper surfaces of all aircraft except target aircraft, whose upper surfaces are to be camouflaged in accordance with the instructions contained in para. 3 (i) (a) above.

(ii) The under-surfaces of all aircraft are to be painted duck-egg blue (Sky-Type "S").

II. MARKINGS OF BRITISH AIRCRAFT

5. (i) *Upper surfaces.*—Red and blue roundels are to be carried on the upper surfaces of the wing tips.

(ii) *Sides of fuselage.*—Red, white and blue roundel surrounded by a yellow ring is to be carried on each side of the fuselage.

(iii) *Fin markings.*—Vertical red, white and blue stripes (with red stripe leading).

(iv) *Under-surfaces.*—(a) Roundels are not to be carried on the under-surfaces of operational aircraft, except day fighters, which may carry red, white and blue roundels. On black under-surfaces of day fighters the roundel is to be surrounded by a yellow ring.

(b) Anti-aircraft (searchlight) co-operation are to carry red, white and blue roundels surrounded by a yellow ring.

(c) For training purposes, target aircraft may carry roundels on the under-surface, at the discretion of unit commanders.

(d) Training, communication, prototype and experimental aircraft with yellow under-surfaces, and ambulance aircraft, are to carry red, white and blue roundels on the under-surfaces of the wing tips.

(v) *Registration number.*—(a) The registration number allotted to the aircraft is to be carried by all aircraft at the rear end of the fuselage.

(b) Aircraft coloured yellow for training purposes are to carry these numbers on the under-surfaces of the wings.

(vi) Code letters are carried by service types in operational units and operational training units. The two code letters, and one letter to indicate individual aircraft, are to be painted in grey paint and placed before and behind the roundels on the fuselage. The code and individual letters may be placed two before and one behind the roundels or *vice versa*. The

letters are to be 48 in. high and are to be made up of strokes 6 in. wide. Smaller letters are to be used only when the space available on the fuselage makes such a course unavoidable. These letters are to be painted on by units after receipt from No. 41 Group.

(vii) Special markings may not be carried except—

(a) by aircraft of allied air forces operating under R.A.F. control or when it is desired to distinguish particular or presentation aircraft. In such cases a marking not larger than 9 in. by 6 in., or an inscription in 2 in. grey letters, may be carried on the sides of the fuselage forward of the trailing edge of the wing, on the authority of the command headquarters concerned.

(b) by non-operational types of aircraft with yellow under-surfaces, when large figures may be carried on the sides of the fuselage in order to meet training requirements. These markings are to be painted on by units, after receipt from No. 41 Group.

(c) by ambulance aircraft, which carry the "Geneva" Red Cross on a white disc of the same diameter as the yellow ring of the standard roundel, immediately aft of the roundel on each side of the fuselage.

(d) by day fighters which carry an 18 in. band of duck-egg blue (Sky-Type "S") right round the fuselage immediately forward of the tail plane and have the airscrew spinner painted duck-egg blue (Sky-Type "S"). These markings are to be painted on by units of No. 41 Group where necessary.

6. Appendices I and II give the standardised camouflage colouring and markings of aircraft. They do not include special markings authorised by command headquarters in accordance with para. 5 (vii) (a) above.

(A.M.Os. A.926/40, A.30/41 and A.157/41 cancelled.)

A.687.—Camouflage Colouring and Markings of Aircraft

(28.8.41.)

A.M.O. A.513/41 is amended as follows:—

Para. 2, sub-para. (ii), line 4.

Delete "the Air Publication and Forms Store" and *substitute* "Ministry of Aircraft Production (R.T.P.4)".

(A.M.O. A.513/41 amended.)

APPENDIX I
R.A.F. LANDPLANES

	Colouring			Marking				
	Pattern	Upper surfaces	Under-surfaces	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional
Operational aircraft (other than night fighters) for service at home.	No. 1 or No. 2	Temperate land scheme	Duck-egg blue (Sky Type "S") Special night (matt black)	Red and blue roundels	No marking except day fighters which carry roundels	Red, white, blue and yellow roundels—registration number	Standard marking	Code letters
Operational night fighters for service at home.	No. 5	Special night (matt black)	Special night (matt black)	Red and blue roundels	No marking	Red, white, blue and yellow roundels—registration number	Standard marking	Code letters
Operational aircraft for service abroad.	No. 1 or No. 2	Tropical land scheme ,, ,,	Duck-egg blue (Sky Type "S") Special night (matt black)	Red and blue roundels	No marking except day fighters which carry roundels	Red, white, blue and yellow roundels—registration number	Standard marking	Code letters
Training and communication aircraft.	No. 1 or No. 3	Temperate land scheme ,, ,,	Duck-egg blue (Sky Type "S") Yellow	Red and blue roundels	Roundels. Training aircraft also carry registration number	Red, white, blue and yellow roundels—registration number	Standard marking	Nil
Target-towing aircraft 	No. 4	Temperate land scheme	Yellow and black	Red and blue roundels	Roundels	Red, white, blue and yellow roundels—registration number	Standard marking	Nil
Anti-aircraft (searchlight) co-operation aircraft.	No. 2	Temperate land scheme	Special night (matt black)	Red and blue roundels	Roundels	Red, white, blue and yellow roundels—registration number	Standard marking	Nil
Target aircraft 	No. 1	Temperate land scheme	Duck-egg blue (Sky Type "S")	Red and blue roundels	No marking	Red, white, blue and yellow roundels—registration number	Standard marking	Nil
Ambulance aircraft 	No. 1	Temperate land scheme	White	Red and blue roundels	Roundels	Red, white, blue and yellow roundels—registration number	Standard marking	Special marking
Prototype and experimental aircraft.	No. 3	Temperate land scheme or Temperate sea scheme	Yellow	Red and blue roundels	Roundels	Red, white, blue and yellow roundels—registration number or equivalent	Standard marking	Nil

APPENDIX II
R.A.F. FLYING-BOATS, FLOATPLANES AND AMPHIBIANS

	Colouring			Marking				
	Pattern	Upper surfaces	Under-surfaces	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional
Aircraft other than target aircraft	1	Temperate sea scheme	Duck-egg blue (Sky Type " S ")	Red and blue roundels	No marking	Red, white, blue and yellow roundels—registration number	Standard marking	Code letters
Target aircraft 	1	Temperate land scheme	Duck-egg blue (Sky Type " S ")	Red and blue roundels	No marking	Red, white, blue and yellow roundels—registration number	Standard marking	Nil

1942/43

AMO A. 664/42 to AMO A. 1246/43

A.664.—Camouflage, Colouring and Markings of Aircraft

(F.O.6.—2.7.42.)

1. For convenience and easy reference, the camouflage, colouring and marking schemes authorised for R.A.F., naval and civil aircraft are set out in tables at appendices I, II and III, respectively, to this order. They do not include special markings authorised by command headquarters under para. 4, sub-para. (ii) (a) below.

2. (i) A series of diagrams is prepared for each type of aircraft, which illustrate the camouflage, colouring and marking schemes for each rôle in which such aircraft are to be employed. Detailed blueprints are prepared by the manufacturers, and copies of approved blueprints are held by the Air Publications and Forms Store. In the interests of economy a general distribution is not made and blueprints are issued only on demand for workshop use.

(ii) In the case of biplanes, the upper surfaces of the lower wing and of the floats in floatplanes are treated as upper surfaces, but the struts supporting the floats on seaplanes are to be camouflaged in the under-surface colours. The under-surface of the upper wing is to be treated as an under-surface.

(iii) Aircraft in operational training units, air fighting development units, Fighter Interception Unit, No. 2 School of Army Co-operation, the Central Gunnery School and other special units of operational training unit category are to conform to the normal operational colour scheme for the rôle of the aircraft.

3. *Camouflage*.—(i) The temperate land scheme consists of dark green and dark earth.

(ii) The temperate sea scheme consists of dark slate grey and extra dark sea grey.

(iii) The day fighter scheme consists of dark green and ocean grey.

(iv) The desert scheme consists of dark earth and middle stone.

4. *Code letters and special markings*.—(i) In addition to national markings, code letters are carried by service types in operational units and operational training units. The two code letters, and one letter to indicate individual aircraft, are to be painted in the appropriate colour and placed before and behind the roundels on the fuselage, except that on Havoc aircraft the aircraft letter is to be placed immediately forward of the leading edge of the main plane and the squadron code letters forward of the roundels. The code and individual letters may be placed two before and one behind the roundels or *vice versa*. The letters are to be 48 in. high and are to be made up of strokes 6 in. wide. Smaller letters are to be used only when the space available makes such a course unavoidable. These letters are to be painted on by units after receipt of the aircraft from the maintenance group concerned.

Note.—The presence, absence or position of code letters *cannot* be regarded as an indication of friendly or hostile character.

(ii) Special markings may not be carried, except—

(a) by aircraft of allied air forces operating under R.A.F. control or when it is desired to distinguish particular or presentation aircraft. In such cases a marking not larger than 9 in. by 6 in. or an inscription in 2 in. grey letters, may be carried

on the sides of the fuselage forward of the trailing edge of the wing, on the authority of the command headquarters concerned. *It is, however, expressly forbidden for any special markings to be carried in any cases where more than one machine is given as a presentation aircraft ;*

(b) by ambulance aircraft, which carry the "Geneva" Red Cross on a white disc of the same diameter as the yellow ring of the standard roundel, immediately aft of the roundel on each side of the fuselage ;

(c) by Photographic Reconnaissance Unit aircraft. These are coloured and marked in accordance with operational requirements. The camouflage and colouring do not necessarily conform to standard, nor are the national markings invariably carried in the orthodox positions or painted in standard colours.

5. *Dimensions of national markings.*—(i) The sizes of roundels and flashes are shown in the following table. The sizes for single-seater fighters are those shown for medium-sized aircraft, the larger sizes for heavy bombers, and the small sizes on light trainer types of aircraft or other aircraft which have slim or boom type fuselages where it is impracticable to apply the larger size of roundel. Where the fin is only large enough to take a flash of the smallest dimension it does not necessarily follow that the roundel used on the sides of the fuselage should also be of the smallest dimension.

(ii) Matt finish paints are to be used for the national markings and dull red code letters.

Indent marking	Type of aircraft	Width of flash, in inches	Outside diameter of each colour band, in inches, or width of each colour band, in inches				Height, in inches
			Red	White	Blue	Yellow	
Roundel ...	Small ...	—	6	8	16	18	—
"	Medium ...	—	12	16	32	36	—
"	Large ...	—	18	24	48	54	—
Flash ...	Small ...	18	8	2	8	—	24
"	Medium ...	24	11	2	11	—	24
"	Large ...	36	17	2	17	—	24

(A.M.Os. A.513/41 and A.687/41 cancelled.)

APPENDIX I

A.—R.A.F. COMMANDS

	Colouring		National markings				Additional or special markings	
	Upper surfaces camouflage	Under-surfaces colouring	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional	Remarks
1. <i>Bomber Command</i>								
(i) Day bombers, at home.	Temperate land scheme.	Sky.	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (dull red).	Standard marking, consisting of vertical red, white and blue stripes. Red leading.	—	Mosquito aircraft with a day rôle, and dual control conversion aircraft, will bear standard day fighter camouflage colouring and marking, including yellow strips on the leading edges of the wings.
(ii) Night bombers, at home.	Temperate land scheme (matt finish).	Special night (matt black).	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (dull red). Code letters (dull red).	Standard marking.	—	—
(iii) Day bombers, abroad.	Temperate land scheme or desert scheme.	Sky or azure.	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (dull red).	Standard marking.	—	—
(iv) Night bombers, abroad.	As for (ii) above.	As for (ii) above.	As for (ii) above.	As for (ii) above.	As for (ii) above.	As for (ii) above.	—	—
2. <i>Fighter Command.</i>								
(i) Day fighters, at home.	Day fighter scheme.	Sea grey, medium.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (sky).	Standard marking.	Spinner: sky. 18 in. wide vertical band of sky around fuselage immediately forward of the tail unit. Yellow strip on the leading edge of wings.	—
(ii) Night fighters, at home.	<i>All external surfaces</i> Special night (matt black) or night in cases where special night is unacceptable.		Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (dull red). Code letters (dull red).	Standard marking.	Nil	—
(iii) Day fighters, abroad.	Day fighter scheme or desert scheme.	Sky or azure.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (sky).	Standard marking.	—	—
(iv) Night fighters, abroad.	Finished as for day fighters at home; recoloured under command arrangements.							
(v) Aircraft employed on air/sea rescue duties.	Temperate sea scheme.	Sky.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (dull red).	Standard marking.	—	—

APPENDIX I—*contd.*

A.—R.A.F. COMMANDS—*contd.*

	Colouring		National markings				Additional or special markings	
	Upper surfaces camouflage	Under-surfaces colouring	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional	Remarks
3. Coastal Command								
(i) <i>Landplanes</i>								
(a) Wellington. Whitley. Liberator. Fortress.	Temperate sea scheme.	White.	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (light slate grey). Code letters (light slate grey).	Standard marking.	—	See remarks at (i) above re Mosquito aircraft.
(b) *Beaufort. Long range Bomber. Blenheim. **Hudson.	Temperate sea scheme.	Sky.	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (dull red).	Standard marking.	—	*Beauforts of Coastal Command are finished with night under-surfaces. **Hudsons may also be night.
(ii) (a) <i>Flying boats, floatplanes and amphibians</i> (other than target aircraft).	Temperate sea scheme.	Sky.	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (dull red).	Standard marking.	—	—
(b) Sunderland aircraft.	Temperate sea scheme.	White.	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (light slate grey).	Standard marking.	—	Side surfaces of fin and rudder, engine cowlings and de-icing equipment, white.
4. Army Co-operation Command.								
(i) <i>Operational</i>								
(a) Air observation post aircraft.	Temperate land scheme.	Temperate land scheme.	Red and blue roundels.	Red and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night). Code letters (dull red).	Standard marking.	—	—
(b) Fighter aircraft.	As for section 2 above.							
(c) Gliders.	Same camouflage, colouring and marking as for bomber aircraft.							
(d) Glider tugs.	Same camouflage, colouring and marking as for their normal operational or training rôle.							
(e) Troop carriers.	Same camouflage, colouring and marking as for their normal operational rôle.							
(ii) <i>Non-operational</i>								
Training gliders.	Temperate land scheme.	Yellow and black diagonal stripes.	Red, and blue roundels.	Red, white and blue roundels. Registration No. (night).	Red, white, blue and yellow roundels. Registration No. (night).	Standard marking.	—	—

APPENDIX I—*contd.*

A.—R.A.F. COMMANDS—*contd.*

	Colouring		National markings				Additional or special markings	
	Upper surfaces camouflage	Under-surfaces colouring	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional	Remarks
5. <i>Flying Training Command.</i>	Temperate land scheme.	Yellow.	Red and blue roundels.	Red, white and blue roundels. Registration No. (night).	Red, white, blue and yellow roundels. Registration No. (night). School letters (sky).	Standard marking.	—	—

B.—MISCELLANEOUS UNITS (IRRESPECTIVE OF COMMANDS)

	Upper surfaces camouflage	Under-surfaces colouring	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional
1. Communications aircraft.	Temperate land scheme.	Yellow.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night).	Standard marking.	Nil.
2. Target-towing aircraft.	Temperate land scheme.	Yellow and black diagonal stripes.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Fuselage lettering (sky). Registration No. (night).	Standard marking.	Blue fuselage band, as for day fighters.
3. Target aircraft.	Temperate land scheme.	Sky.	Red and blue roundels.	No marking.	Red, white, blue and yellow roundels. Registration No. (night).	Standard marking.	Nil.
4. Anti-aircraft (search-light co-operation) aircraft.	Temperate land scheme.	Special night (matt black) or white.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night). Group or flight code numbers (dull red).	Standard marking.	In place of squadron code letters aircraft of No. 1 A.A.C.U. carry flight code numbers consisting of a flight letter and figure 1 (e.g., A Flight—A.1. and individual aircraft letter) Fighter group flights carry the group number in place of code letters, e.g., No. 9 Group Flight carries 09.
5. Ambulance aircraft.	Temperate land scheme.	White.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (light slate grey).	Standard marking.	Fuselage.—“Geneva” Red Cross on white disc immediately aft of roundel.
6. Photographic Reconnaissance Unit.	Coloured and marked in accordance with operational requirements. <i>Note.</i> —Photographic Reconnaissance Unit camouflage does not necessarily conform to standard, nor are the national markings invariably carried in the orthodox positions or painted in standard colours.						
7. Prototype and experimental aircraft and aircraft attached to experimental establishments. (i) Power-driven.	Temperate land scheme, temperate sea scheme or day fighter scheme.	Yellow.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. or equivalent (night).	Standard marking.	Fuselage.—Letter “P” in yellow, encircled by a yellow $\frac{1}{4}$ in. ring of equal diameter to fuselage roundel.

APPENDIX I—*contd.*

B.—MISCELLANEOUS UNITS (IRRESPECTIVE OF COMMANDS)—*contd.*

	Upper surfaces camouflage	Under- surfaces colouring	Upper surfaces of wings	Under- surfaces of wings	Fuselage	Fins	Additional
(ii) Gliders.	Temperate land scheme, except wing tips, which are yellow for a distance of 8 ft. from the tip. The tips are covered when the glider is on the ground.	Yellow and black diagonal stripes.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. or equivalent (night).	Standard marking.	Fuselage.—Letter "P" in yellow (as above).
8. Merchant Ships Fighter Unit.	Temperate sea scheme.	Sky.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night).	Standard marking.	—
9. 1425 Flight Liberator aircraft.	Temperate sea scheme.	Azure.	Red and blue roundels.	Red, white and blue roundels.	Red, white, blue and yellow roundels. Registration No. (night).	Standard marking.	—

APPENDIX II

NAVAL AIRCRAFT

Colouring		Marking					
	Upper surfaces camouflage	Under-surfaces colouring	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional
1. Operational aircraft.	Dark slate grey and extra dark sea grey (temperate sea scheme).	Sky, or in special cases, matt black.	Red and blue roundels. (In biplanes, on upper planes only).	No marking, except in the case of fighters, which carry red, white and blue roundels.	Red, white, blue and yellow roundels. Aircraft symbols as follows:— (i) <i>Ship-borne aircraft</i> .—Single letter. (ii) <i>Carrier-borne aircraft</i> .—Figure-letter. (iii) <i>Shore-based aircraft</i> .—Letter-figure-letter. All in dull red.	Standard marking.	Rear of fuselage in black letters 4 in. high x 24 in. wide, the words "ROYAL NAVY" and the aircraft serial number.
2. <i>Non-operational aircraft</i> (except those in 3 below).	Temperate sea scheme.	Yellow.	As for 1 above.	Red, white and blue roundels.	As for 1 above.	Standard marking.	As for 1 above.
3. <i>Target-low-ing aircraft</i> .	Temperate sea scheme.	Black inclined stripes on a yellow background.	As for 1 above.	Red, white and blue roundels.	As for 1 above.	Standard marking.	As for 1 above.

APPENDIX III

BRITISH CIVIL AIRCRAFT

Colouring			Marking				
	Upper surfaces camouflage	Under-surfaces colouring	Upper surfaces of wings	Under-surfaces of wings	Fuselage	Fins	Additional
1. Landplanes.	Temperate land scheme.	Silver.	Standard sized civil registration letters underlined with red and blue stripes each 6 in. wide, red stripe immediately below letters. (Letters in black.)	Standard sized civil registration letters underlined with red, white and blue stripes, each 6 in. wide, red stripe immediately below letters. (Letters in black.)	Standard sized civil registration letters in black underlined with red, white and blue stripes, each 6 in. wide, red stripe immediately below letters.	Vertical red, white and blue stripes (red stripe leading). Stripes to be 8 in. wide and 27 in. high.	On camouflaged background, letters are to be outlined with a narrow silver line. Civil aircraft operating to neutral countries are permitted to carry as an additional marking a Union Jack on each side of the fuselage. It is not to exceed 6 ft. x 3½ ft.
2. Flying boats, floatplanes and amphibians.	Temperate sea scheme.	Silver.	As for 1 above.	As for 1 above.	As for 1 above.	As for 1 above.	As for 1 above.

A.1096.—Camouflage Colouring and Marking of Aircraft

(F.O.6.—8.10.42.)

A.M.O. A.664/42 is amended as follows :—

Para. 2.

Sub-para. (i), line 4. *Delete* from “held” to end of sentence and *substitute* “obtainable on demand from the Secretary, Ministry of Aircraft Production (R.T.P.4).”

Sub-para. (iii), line 2. After “Central Gunnery School” *insert* “, meteorological flights, heavy glider conversion units.”

Add at end “Heavy types of operational aircraft used for advanced training purposes may also conform to the normal operational scheme for the rôle of the aircraft.”

Add the following new sub-paragraph :—

“(iv) American types of aircraft will be seen in both U.S. Army Air Corps and U.S. Navy Air Corps camouflage and colouring schemes carrying British markings. British types of aircraft will be seen in British camouflage and colouring schemes carrying American markings.”

Para. 5.

Sub-para. (i). *Add* at end “Manchester aircraft and other aircraft of similar size are included with four-engined aircraft in the description ‘large aircraft’, but Wellington and Whitley aircraft are classified as medium aircraft.”

Sub-para. (ii), table. *Delete* heading over columns 4 to 7 and *substitute* :—"For roundel, diameter of the circle formed by the outside edge of each colour (in inches). For flash, width of each colour (in inches)".

Add the following footnote :—

"*Note.*—Where a red, white and blue roundel is required on the under-surfaces of the wing, the size of this roundel is to be obtained from the diameter of the colours in the above table."

Appendix I.

A.—R.A.F. Commands.

Section 1.

(i), column 9. *Delete* existing detail and *substitute* :—

"Mosquito aircraft with a day rôle are to bear standard day fighter camouflage and colouring. National and tactical markings are to conform to the scheme for day bomber aircraft. The spinner is ocean grey. The code letters are sky. No other recognition markings are to be carried."

(ii), column 9. *Insert* "Some Whitley aircraft are coloured black on all external surfaces."

(iv).

Column 2. *Add* at end "or desert scheme".

Column 9. *Insert* "On Wellington aircraft registration number is (night)."

Section 2.

(ii). Columns 2 and 3. (All, external surfaces). *Delete* existing detail and *substitute* in column 2 (Upper surfaces camouflage) "Dark green and sea green medium" and in column 3 (Under-surfaces colouring) "Sea green medium".

Column 7. *Add* "Sea grey medium."

Column 9. *Insert* "Spinner—sea grey medium."

Renumber section 2 (ii) as 2 (ii) (a).

Insert new section numbered (ii) (b), and detail as follows :—

Column 1. "Intruder aircraft."

Column 2. "Day fighter scheme."

Column 3. "Special night (matt black)."

Column 4. "Red and blue roundels."

Column 5. "No marking."

Column 6. "Red, white, blue and yellow roundels, registration No. (dull red). Code letters (dull red)."

Column 7. "Standard markings."

Column 8. } Nil.
Column 9. }

(iii), column 2. After "Day fighter scheme" *insert* ", temperate land scheme".

(iv). *Delete* this section and *substitute* " (iv) Night fighters, abroad. Finished as for day fighters at home."

Section 3.

(i) (a).

Column 1. *Add* "Hudson".

Column 9. *Delete* existing detail and *substitute* :—

“ For Photographic Reconnaissance Unit aircraft *see* remarks at section 1 (i) above.

For Whitley aircraft *see* remarks at section 1 (ii) above.

Wellington aircraft conform to scheme detailed in section 1 (iv) above.”

(i) (b).

Column 1. *Add* “ Hampden T.B.”

Column 9. After “ Beauforts ” *insert* “ and Hampden T.Bs.”

Section 4.

(i) (b). *Insert* in column 8 “ Mustang aircraft will carry a yellow stripe 12 inches wide running across the upper and lower surfaces of each wing fore and aft from the leading edge to the trailing edge, the outer edge of the stripe coinciding with the outer edge of the flap.”

(i) (c). After “ aircraft ” *add* “, except that the under-surface colouring is night instead of special night”.

Section 5.

Column 9. *Insert* “ Whitley aircraft bear operational camouflage, colouring and marking (*see* section 1 (ii) above). Operational types used for training will bear the camouflage colouring and marking scheme appropriate for the normal operational rôle of the aircraft. Aircraft which are painted yellow are not at present being recoloured.”

B.—Miscellaneous Units (Irrespective of Commands).

Section 9.

Column 2. *Add* at end “ or temperate land scheme ”.

Column 3. *Add* at end “ or special night ”.

Column 5. *Delete* existing detail.

(A.M.O. A.664/42 amended.)

A.1377.—Camouflage Colouring and Marking of Aircraft

(F.O.6.—24.12.42.)

A.M.O. A.664/42 is further amended as follows :—

Appendix I.

A. R.A.F. Commands.

Section 1.

(ii) Column 2. *Delete* “ (matt finish) ”.

Column 3. *Delete* existing detail and *substitute* “ Night.”

(iv), column 9 (as amended by A.M.O. A.1096/42). *Delete* detail.

Section 2.

(i) *Re-number* as (i) (a) and *insert* the following in column 9 :—

“ Typhoon aircraft are specially marked as follows :—

(a) The under-surfaces port and starboard wings are painted with black stripes running fore and aft 12 inches wide and at intervals of 24 inches from

the root of the wing to the inboard end of the aileron with the first black stripe situated at the wing root. The spaces between the black stripes on the under-surfaces of the wings are painted white, but from the outboard edge of the outer black stripes to the wing tips the under-surfaces remain sea grey medium.

(b) The spinner in front of the propeller blades only is painted sky (duck egg blue) and the remainder of the nose is coloured in the standard day fighter camouflage of dark green and ocean grey on the upper surfaces and coloured sea grey medium on the under-surfaces."

Insert new sub-section (i) (b) and detail as follows :—

Column 1. "High altitude fighters."

Columns 2 to 9. "Pending the adoption of a standard scheme the various camouflages, colourings and markings used are promulgated to the defences by postagram or signal."

(ii) (a). Column 2. *Delete* "sea green " and *substitute* "sea grey ".

Column 3. *Delete* "sea green " and *substitute* "sea grey ".

(ii) (b) (as amended by A.M.O. A.1096/42).

Column 2. *Delete* existing detail and *substitute* "Dark green and sea grey medium."

Column 3. *Delete* existing detail and *substitute* "Night."

Column 7. *Delete* existing detail and *substitute* "Fin and rudder are coloured sea grey medium and bear standard markings."

Column 9. *Insert* "Spinner sea grey medium."

(iii), column 3. *Delete* existing detail and *substitute* "Sky, azure or light Mediterranean blue."

(iv) (as amended by A.M.O. A.1096/42). *Delete* "day " and *substitute* "night ".

Section 3, (i) (a) (as amended by A.M.O. A.1096/42), column 9. After "see " *insert* "section 6 and also ".

Section 4. (i) (b) (as amended by A.M.O. A.1096/42). *Delete* detail.

(i) (c) (as amended by A.M.O. A.1096/42. (*Delete* from "except " to "night ".

Section 5.

Column 8. *Insert* "Cowlings of Oxford aircraft used for night simulation training are painted sky as additional recognition marking for training purposes."

Column 9. *Insert* "Elementary training type of aircraft only."

B. Miscellaneous Units (Irrespective of Commands).

Section 4, column 3. *Delete* existing detail and *substitute* "Night or white."
Section 9, column 3 (as amended by A.M.O. A.1096/42). *Delete* "special".

Appendix II.

Section 1, column 3. *Delete* "matt black" and *substitute* "night".

Section 2, column 8. *Insert* "Ansons and other aircraft engaged on operational training duties normally conform to the operational scheme, but certain operational types used for training have yellow under-surfaces."

(A.M.O. A.664/42, as amended by A.1096/42, amended.)

A.1246.—Unit Badges and Markings on Aircraft

(C.10728/41/D.D.I.(S).—2.12.43.)

1. Unit badges or other special markings must not be carried on aircraft or other R.A.F. property except in accordance with the conditions laid down in para. 4 of A.M.O. A.664/42.

2. Paras. 1 and 6 of A.M.O. A.14/36 (as amended by A.150/36, A.303/36, A.24/37, A.86/37 and A.136/38) are hereby suspended until further notice.

1944/45

AMO A. 864/44 to A.P. 2656A

A.864.—Camouflage, Colouring and Marking of Aircraft

(S.59966/IV/Ops.(A.D.)6.—7.9.44.)

1. The following regulations, which take effect immediately, apply to all aircraft of the Royal Air Force at home and overseas, and supersede those contained in all previous Air Ministry Orders on this subject.

2. Modifications of, or additions to, the standard schemes of colouring and marking of aircraft, other than P.R.U. aircraft, may be made only with the prior approval of the Air Ministry. Approval is to be sought by application to the Air Ministry, Whitehall (A.C.A.S./T.R.).

3. No aircraft, other than a P.R.U. aircraft, is to be flown without standard national markings applied in accordance with D.T.D. Technical Circular No. 360, unless special permission is obtained from the Air Ministry. If permission is granted, clearance is to be obtained for each individual flight from the appropriate defence authorities.

4. Aircraft of photographic reconnaissance units are normally coloured and marked in accordance with the instructions in D.T.D. Technical Circular No. 360. The camouflage colouring may, however, not necessarily conform to a standard scheme nor are the national markings invariably carried in the orthodox positions or painted in the standard colours.

5. The colouring and marking of aircraft is classified in the following categories:—

(i) *Camouflage and colouring*.—Full details of the authorised camouflage and colouring schemes for all aircraft, according to their rôle, are set out in D.T.D. Technical Circular No. 360.

(ii) *National markings*.—Full details of national markings, their size and positions are set out in D.T.D. Technical Circular No. 360.

(iii) *Tactical markings*.—(a) *Code letters*.—Aircraft belonging to units authorised to do so, carry code letters to indicate the unit to which the aircraft belong and to distinguish individual aircraft within the unit. Details of the code letters are contained in instructions issued by the Air Ministry (Sigs. 5), who are responsible for the allocation of code letters to units. Particulars of the size, colour and position of code letters to be painted on aircraft are contained in D.T.D. Technical Circular No. 360.

(b) *Special markings to distinguish between different rôles and for other purposes* may be authorised by command headquarters, subject to the overriding authority of the Air Ministry. Details of such markings are to be notified to the Air Ministry, who will promulgate them by signal or postagram to all concerned.

(iv) *Individual marking and emblems*.—Individual markings and emblems to distinguish particular aircraft, presentation aircraft or nationality may be painted on the sides of the fuselage, forward of the trailing edge of the main plane, on the authority of command headquarters, provided that the marking is not larger than nine inches by six inches. The same markings may not be carried by more than one aircraft in any one unit, except in the case of Allied national emblems, which may be carried on all aircraft of the unit, provided that the same marking is carried by all aircraft of the same nationality, and that such aircraft are not limited to one squadron.

“(v) Unit badges may be placed on aircraft or other R.A.F. property (except in the Far Eastern theatre of war) in accordance with the provisions of A.M.O. A.14/36, as amended.”

(A.M.Os. A.664/42, A.1096/42 and A.1377/42 cancelled.)

A.976.—Camouflage Colouring and Marking of Aircraft

A.M.O. A.864/44 is amended as follows :—

Para. 5. *Renumber* sub-para. (v) as (vi) and *insert* the following new sub-para. (v) :—

“(v) Unit badges are not to be carried on aircraft or other R.A.F. property. The provisions of paras. 1, 5 and 6 of A.M.O. A.14/36, as amended, are hereby suspended until further notice.”

(A.M.O. A.976/44.)

(A.M.O. A.864/44 amended. A.M.Os. A.1246/43 and A.865/44 cancelled.)

A.1035.—Camouflage, Colouring and Marking of Aircraft

A.M.O. A.864/44 is further amended as follows :—

Para. 5, sub-para. (v), as inserted by A.M.O. A.976/44. *Delete* this sub-paragraph and *substitute* :—

“(v) Unit badges may be placed on aircraft or other R.A.F. property (except in the Far Eastern theatre of war) in accordance with the provisions of A.M.O. A.14/36, as amended.”

(A.M.O. A.1035/45.)

(A.M.O. A.864/44 amended. A.M.O. A.976/44 cancelled.)

*This leaf issued with A.L. No. 8
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Chapter I . . . CAMOUFLAGE SCHEMES

Introduction

1. The instructions in this chapter concern only the external camouflage colour schemes for aircraft. Identification markings are dealt with in Chapter 2 of this Section.

2. All external surfaces of aircraft are to be camouflaged with the exception of the following:

(i) Exhaust stub pipes.

(ii) Exhaust manifolds.

(iii) Flame dampers.

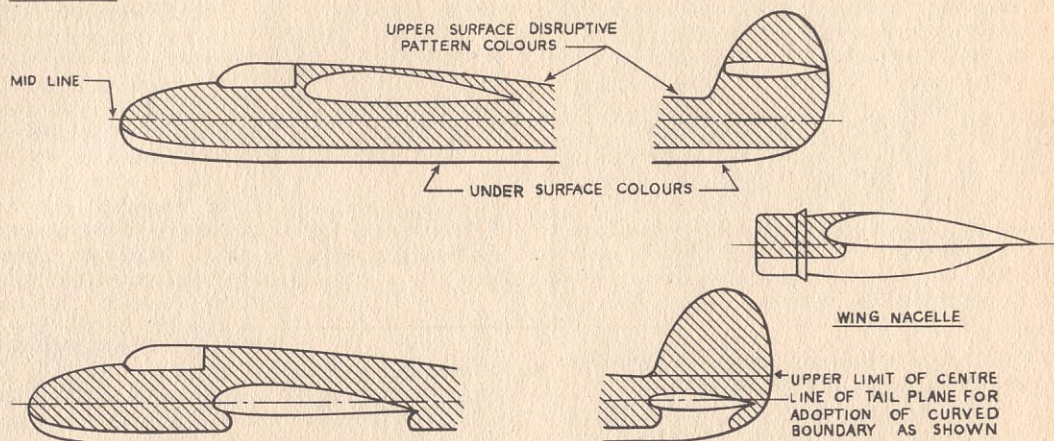
(iv) Tail pipes.

(v) Transparent windows, except under certain circumstances (*see* also para. 10).

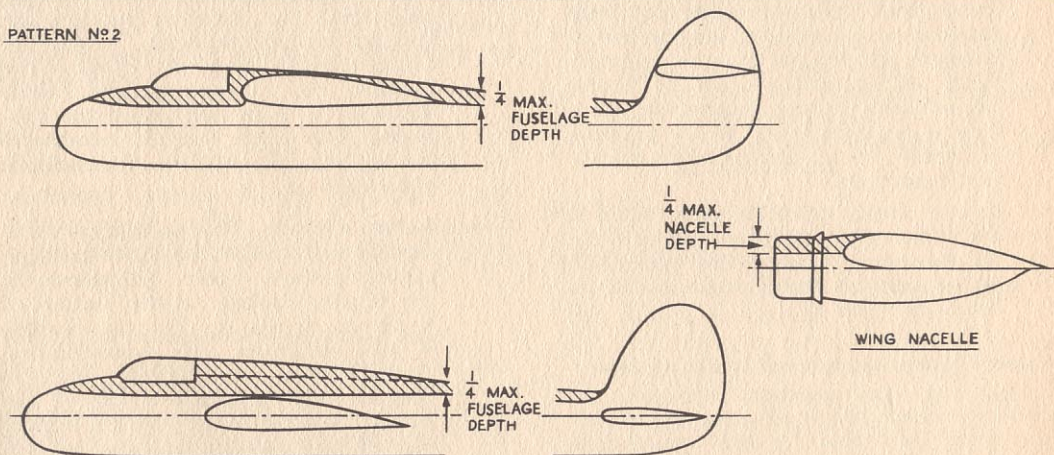
(vi) Tyres.

(vii) Working parts of mechanisms.

PATTERN N°1



PATTERN N°2



THIS DIAGRAM SHOWS THE EFFECT ON THE BOUNDARY BETWEEN UPPER AND UNDER SURFACES WITH VARIOUS POSITIONS OF MAIN AND TAIL PLANES AND AT THE NOSE AND NACELLES

Fig. 1.—Boundaries between upper and under surfaces

3. Propellers are finished by the propeller manufacturer in accordance with the relevant specification. Should it be necessary to re-finish a propeller in service, the paint normally used is "night", with a 4 in. yellow band covering the complete tip of each blade. The method of re-painting propellers is described in A.P.1538B, Vol. II, Part 3, Sect. 11. Control surfaces which require to be re-balanced after re-finishing should be treated in accordance with the instructions given in the relevant A.P., Vol. II, Part 4.

Layout

4. The layout of the camouflage is defined as follows, in conjunction with para. 5:—

- (i) **UPPER SURFACES.**—The upper surfaces should be in accordance with the disruptive patterns shown in fig. 4 to 9, at the end of this chapter. It may be found that mirror images of these patterns have been used by the manufacturers on certain types of aircraft. When such aircraft require to be re-camouflaged, the manufacturer's pattern should be copied so as to preserve uniformity in all Service aircraft of a particular type.
- (ii) **UNDER SURFACES.**—The under surfaces are usually finished in one colour only, the boundary between the upper and under surfaces being determined as detailed in para. 5.

Boundary between upper and under surfaces

5. There are two patterns defining the boundary between the upper and under surfaces. The pattern which should be used depends upon the operational role of the aircraft, and is indicated in the paragraph dealing with each particular type. The two patterns are illustrated in fig. 1 and are defined as follows:—

- (i) **PATTERN No. 1.**—The boundary is the

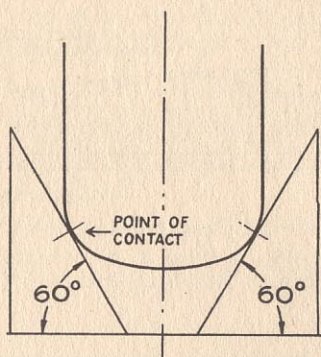


Fig. 2.—Boundary template for marking pattern No. 1

line of contact traced on the fuselage by the template shown in fig. 2. If the wing is above the mid line of the fuselage the boundary is continued under the wing, conforming to the template, but is curved upwards or downwards to meet the chord of the tailplane when this is attached to the fuselage. If the wing (or the lower wing of a biplane) is on or below the mid line of the

fuselage, the boundary is curved upwards or downwards to meet both the chord of the wing and the chord of the tail-plane. The fins and rudders are regarded as upper surfaces. Where the tailplane is situated on the fin above the fuselage the upper surface colour boundary is continued under the tailplane. The upper surface colours of the top plane are used for the fuselages of biplanes.

- (ii) **PATTERN No. 2.**—The boundary is a line parallel to the centre-line of the fuselage, passing through a point $\frac{1}{4}$ D below the top of the fuselage at the section of maximum depth, D. For the purpose of this definition any superstructure (cockpit cover and fairing, etc.) is ignored. The boundary is curved upwards or downwards to meet the leading edge of the fin and/or tailplane, but not to meet the chord of the wing. The fins and rudders are regarded as *under* surfaces.

6. With both patterns the top surfaces of

wings and tail-planes are treated as upper surfaces. The upper surfaces of top wings of biplanes are camouflaged in darker colours than the upper surfaces of the bottom wings. The interplane struts should be painted in the colour used for the lower wing at the point where the base of the strut meets the wing.

7. The boundary for wing nacelles should be determined independently of the fuselage, but in the same manner as for the pattern specified for the type of aircraft.

Boundaries between colours

8. The boundary between upper and under surfaces should be either a straight line or else in bold curves. It is not necessary to obtain a precise dividing line between the upper and under surfaces or between different camouflage colours on the same surface. The colours may be sprayed, for example, to a chalk line giving an overlap of one or two inches at the boundary.

Colours

9. The colours which should be used for camouflage depend entirely upon the rôle of the aircraft. The colours are detailed in the paragraphs concerning individual operational rôles.

Painting of transparent blisters and noses

10. The painting of transparent moulded blisters and noses is necessary in connection with certain special installations. The painting should be external, in conformity with the camouflage scheme, and restricted to one coat. No primer should be applied. The paint used must contain no lead oxide or carbon black; paints to D.T.D.308, 314, or 517 are suitable.

11. Where such parts have already been

given more than one coat or have been painted internally, the paint should be removed and the transparency refinished in accordance with para. 10.

12. For flying boats and naval aircraft the painting of such transparencies should be one coat applied internally. This is to avoid adhesion of salt and to facilitate washing.

Fighter Command aircraft

Day fighters (except high flying)

13. Day fighters should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Ocean grey.
- (ii) UNDER SURFACES.—Medium sea grey.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Sky.
- (v) ADDITIONAL RECOGNITION COLOURING—
 - (a) A vertical band of sky, 18 in. wide, around the fuselage immediately forward of the tail unit.
 - (b) As specially notified for the particular type.

Day fighters (high flying)

14. High flying day fighters should be camouflaged as follows:—

- (i) UPPER SURFACES.—Medium sea grey.
- (ii) UNDER SURFACES.—P.R. blue.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) FINS AND RUDDERS.—Medium sea grey.
- (v) SPINNERS.—Medium sea grey.

Intruders

15. Intruder aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.

- (b) SHADED AREAS.—Medium sea grey.
- (ii) UNDER SURFACES.—Night.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Medium sea grey.

Night fighters

16. Night fighters should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Medium sea grey.
- (ii) UNDER SURFACES.—Medium sea grey.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES. — In side elevation, the boundary is to follow the centre-line of the fuselage, but should be curved upwards or downwards to meet the leading and trailing edges of the main-plane and tailplane roots.
- (iv) FINS AND RUDDERS.—Medium sea grey.
- (v) SPINNERS.—Medium sea grey.

Note . . . The scheme detailed in para. 13 is universal for all normal day fighters. The schemes detailed in para. 14, 15, and 16 should not be applied unless specific instructions are issued.

Bomber Command aircraft, gliders and tugs

Day bombers (except Mosquito)

17. All day bombers except those of the Mosquito type should be camouflaged as follows. The scheme for the Mosquito is detailed in para. 18.

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Sky.

- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Medium sea grey.

Mosquito day bombers

18. Mosquito day bombers should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Ocean grey.
- (ii) UNDER SURFACES.—Medium sea grey.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Medium sea grey.

Night bombers and gliders

19. All night bombers, and gliders other than glider trainers, should be camouflaged as follows. The scheme for glider trainers is detailed in para. 41.

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Night.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 2.
- (iv) SPINNERS.—Dark green or dark earth.

Tugs

20. Aircraft diverted for use as tugs retain the camouflage scheme of their previous rôle. No additional recognition colouring or marking is required.

Overseas Commands

Aircraft operating in desert areas

Day bombers

21. Day bombers operating in desert areas should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Mid-stone.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Azure blue.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Mid-stone or dark earth.

Day fighters

22. The camouflage schemes for day fighters operating in desert areas are the same as those for home based aircraft fulfilling similar roles, which are detailed in para. 13 and 14.

Night fighters and intruders

23. The camouflage schemes for night fighters and intruders operating in desert areas are the same as those for home based aircraft fulfilling similar roles, which are detailed in para. 15 (intruders) and 16 (night fighters).

Night bombers

24. Night bombers operating in desert areas should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Mid-stone.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Night.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 2.
- (iv) SPINNERS.—Dark earth.

Aircraft operating overseas in other than desert areas

Day fighters, night fighters, and intruders

25. Day fighters, night fighters, and intruders operating overseas in other than desert areas should be camouflaged in accordance with the instructions given in para. 14 to 16 inclusive for home based aircraft fulfilling similar rôles.

Day bombers

26. Day bombers operating overseas in other than desert areas should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Azure blue.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Dark green or dark earth.

Night bombers and tugs

27. Night bombers and tugs operating overseas in other than desert areas should be camouflaged in accordance with the instructions in para. 19 and 20 respectively.

Aircraft engaged on coastal duties

28. Aircraft engaged on overseas coastal duties should be camouflaged in accordance with the instructions contained in para. 32 to 36 inclusive, as applicable.

Naval aircraft

Monoplanes

29. Naval monoplanes should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) AIRCRAFT OPERATING FROM SHIPS:—
Unshaded areas—Extra dark sea grey.
Shaded areas—Dark slate grey.
 - (b) AIRCRAFT OPERATING FROM SHORE BASES:—
Unshaded areas—Dark green.
Shaded areas—Dark earth.
- (ii) UNDER SURFACES.—Sky.

- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Either of the two colours used for the upper surfaces.

Biplanes and amphibians

30. Naval biplanes operating from ships, and naval amphibians should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) TOP PLANES:—
 - Unshaded areas—Extra dark sea grey.
 - Shaded areas—Dark slate grey.
 - (b) BOTTOM PLANES:—
 - Unshaded areas—Dark sea grey.
 - Shaded areas—Light slate grey.
- (ii) UNDER SURFACES.—Sky.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Either of the two colours used for the upper surfaces.

31. SHORE BASED NAVAL BIPLANES.—The upper surface colours for Naval biplanes operating from shore bases should be as follows:—

- (i) TOP PLANES
 - (a) UNSHADED AREAS—Dark green.
 - (b) SHADED AREAS—Dark earth.
- (ii) BOTTOM PLANES
 - (a) UNSHADED AREAS—Light green.
 - (b) SHADED AREAS—Light earth.

In all other respects the scheme is the same as for biplanes operating from ships.

Aircraft engaged on coastal duties

Ordinary coastal duties

32. The instructions in this paragraph concern all aircraft used for coastal duties except photographic reconnaissance, meteorological,

air/sea rescue, and other special duties aircraft:—

- (i) UPPER SURFACES.—Extra dark sea grey, except where white is specified by sub-para. (ii).
- (ii) UNDER SURFACES.—The under surfaces as defined by Pattern No. 1, including the under surfaces of the wings and tail, should be glossy white (*see* para. 35 for definition of glossy white, and para. 36 for special requirements for flying boats). The under surfaces between the boundaries defined by Patterns No. 1 and No. 2 should be standard white and, in addition:—
 - (a) The standard white should be extended upwards and merged into the upper surfaces in such manner that, in front and side elevations, the aircraft appears almost entirely white, and:—
 - (b) For the engine nacelles, the standard white should be extended upwards to cover the whole of the top surface forward of the boundary of the upper surface colour of the wing near the leading edge.

- (iii) FINS AND RUDDERS.—White.
- (iv) SPINNERS.—White.
- (v) RUBBER DE-ICING SHEATHS.—Flexible paint to D.T.D.557 (Stores Ref. 33B/505).
- (vi) ENGINE COWL RINGS.—White to D.T.D. 314 (Stores Ref. 33B/176, 177, 343, or 396 for $\frac{1}{2}$ gall., 1 gall., 5 gall Home, and 5 gall. Overseas containers respectively).
- (vii) ANTI-GLOW SHROUDS.—Anti-glow white to D.T.D.557 (Stores Ref. 33B/528).

Special coastal duties—Scheme A

33. Scheme A for the camouflage of aircraft for special coastal duties is as follows:—

- (i) UPPER SURFACES.—Extra dark sea grey.

- (ii) UNDER SURFACES.—The under surfaces as defined by Pattern No. 1, including the under surfaces of the wings and tail should be glossy white (*see* para. 35 for definition of glossy white, and para. 36 for special requirements for flying boats). The under surfaces between the boundaries defined by Patterns No. 1 and No. 2 should be dark sea grey.
- (iii) SPINNERS.—Extra dark sea grey.

Special coastal duties—Scheme B

34. Scheme B for the camouflage of aircraft for special coastal duties is as follows:—

- (i) UPPER SURFACES.—Extra dark sea grey.
- (ii) UNDER SURFACES.—Night.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 2.
- (iv) SPINNERS.—Extra dark sea grey.

Note . . . The standard scheme detailed in para. 32 should be used in all instances unless special instructions are issued for the application of the schemes detailed in para. 33 and 34.

Definition of glossy white

35. The glossy white finish called for in para. 32 and 33 should be obtained as follows:—

- (i) "C" FINISHES.—Where "C" finishing materials are used, the glossy appearance should be obtained by applying a final coat of transparent covering dope (Stores Ref. 33B/85, 86 and 87 for $\frac{1}{2}$ gall., 1 gall. and 5 gall. containers respectively) over the standard white. The matt white finish required elsewhere should be obtained by the use of white to D.T.D. 314 or 517.
- (ii) "S" FINISHES.—Where "S" finishing materials are used, the glossy appearance should be obtained by the use of white to D.T.D. 260A, the matt white finish required elsewhere being obtained by the use of white to D.T.D. 314 or 517.

Special requirements for flying boats

36. For flying boats, the underwater surfaces of the hull and of the wing-tip floats should be given a coat of anti-fouling white to D.T.D. 420B (Stores Ref. 33B/367), followed by a coat of white to D.T.D. 420B (Stores Ref. 33B/463).

Training, communications, and target-towing aircraft

Training and communications aircraft

37. The instructions in para. 38 and 39 concern all training and communications aircraft except glider trainers, the camouflage scheme for which is detailed in para. 41.

Monoplanes

38. Monoplane trainers and communications aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Yellow.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Dark green or dark earth.

Biplanes

39. Biplane trainers and communications aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) TOP PLANES:—
 - UNSHADED AREAS.—Dark earth.
 - SHADED AREAS.—Dark green.
 - (b) BOTTOM PLANES:—
 - UNSHADED AREAS.—Light earth.
 - SHADED AREAS.—Light green.
- (ii) UNDER SURFACES.—Yellow.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.

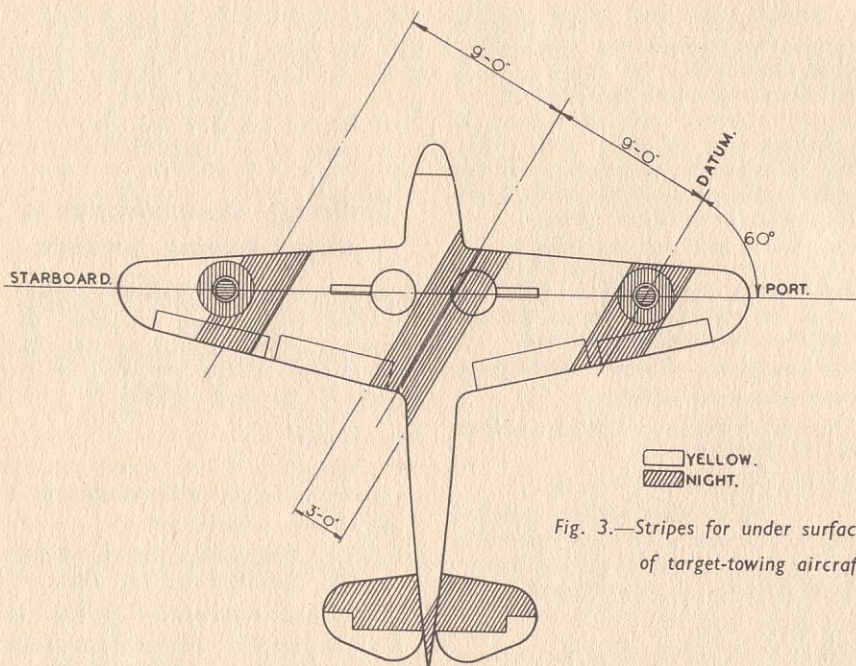


Fig. 3.—Stripes for under surface of target-towing aircraft

(iv) SPINNERS.—Light green or light earth.

Note . . . Existing aircraft which have been camouflaged with an approved scheme not conforming with para. 38 or 39 should not be changed unless specific instructions to that effect are issued.

Target-towing aircraft

40. Target-towing aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Stripes, as defined below, should be applied to the under surfaces of the wings, nacelles and

fuselage. The base colour of the remaining under surface, including the under surface of the elevator but not of the tailplane, should be Yellow. The under surface of the tailplane should be Night. The stripes should be 3 ft. wide and Night in colour. They should be inclined at 60° to the lateral axis of the aircraft, and should run aft from port to starboard. The distance between the centre-lines of the stripes should be 9 ft., and the centre-line of the datum stripe should pass through the centre of the port roundel.

- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.

- (iv) SPINNERS.—Dark green or dark earth.
- (v) ADDITIONAL RECOGNITION COLOURING.—A vertical band of Sky, 18 in. wide, around the fuselage immediately forward of the tail unit.

Glider trainers, private venture, and prototype aircraft

Glider trainers and prototype gliders

41. Glider trainers and prototype gliders should be camouflaged as follows:—

- (i) UPPER AND UNDER SURFACES.—As for target-towing aircraft (*see* para. 40).
- (ii) ADDITIONAL RECOGNITION COLOURING.—The upper surface of the wings should be Yellow for a distance of 8 ft. from the extreme tips.

Private venture and prototype aircraft

42. The camouflage instructions in this paragraph concern all private venture aircraft, and prototype aircraft other than prototype gliders, the scheme for which is detailed in para. 41:—

- (i) UPPER SURFACES.—The colours should be those detailed for the rôle for which the aircraft is intended.
- (ii) UNDER SURFACES.—Yellow (excepting flying boats and amphibians, which, to save labour, should have their under surfaces finished in the colours for the rôle which they are intended to fulfil).

Ambulance, air/sea rescue, and Service transport aircraft

Ambulance aircraft

43. Ambulance aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.

(b) SHADED AREAS.—Dark earth.

- (ii) UNDER SURFACES.—White.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Dark green or dark earth.

Note . . . For ambulance aircraft operating in desert areas, the colours detailed in para. 21, (i) and (iv), may be required instead of those given at (i) and (iv) above.

Air/sea rescue aircraft

44. Air/sea rescue aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Extra dark sea grey.
 - (b) SHADED AREAS.—Dark slate grey.
- (ii) UNDER SURFACES.—Sky, or if specially required for aircraft destined overseas, Azure blue.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Extra dark sea grey or dark slate grey.

Service transport aircraft

45. Service transport aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Extra dark sea grey.
 - (b) SHADED AREAS.—Dark slate grey.
- (ii) UNDER SURFACES.—Azure blue, or, if specially required, Night.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Extra dark sea grey or dark slate grey.

Autogiros, air observation, army co-op., A.A. co-op., and target aircraft

Autogiros

46. Autogiros should be camouflaged in accordance with the scheme for their particular rôle. The rotor blades should be finished on both sides with either of the two colours used for the upper surface of the fuselage.

Air observation aircraft

47. Air observation aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—As upper surfaces.
- (iii) SPINNERS.—Dark green or dark earth.

Army co-operation aircraft

48. Aircraft diverted for army co-operation duties are finished in the colours used for their previous rôle.

Anti-aircraft co-operation aircraft

49. Anti-aircraft co-operation aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Dark green.
 - (b) SHADED AREAS.—Dark earth.
- (ii) UNDER SURFACES.—Night.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 2.
- (iv) SPINNERS.—Dark green or dark earth.

Target (pilotless) aircraft

50. Pilotless target aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES.

(a) UNSHADED AREAS.—Dark green.

(b) SHADED AREAS.—Dark earth.

- (ii) UNDER SURFACES.—Sky.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Dark green or dark earth.

P.R. and meteorological aircraft

Photographic reconnaissance and special met. aircraft (high flying)

51. Photographic reconnaissance and special meteorological aircraft should be camouflaged as follows:—

- (i) UPPER AND UNDER SURFACES.—P.R.U. blue.
- (ii) SPINNERS.—P.R.U. blue.

Photographic reconnaissance aircraft (low flying)

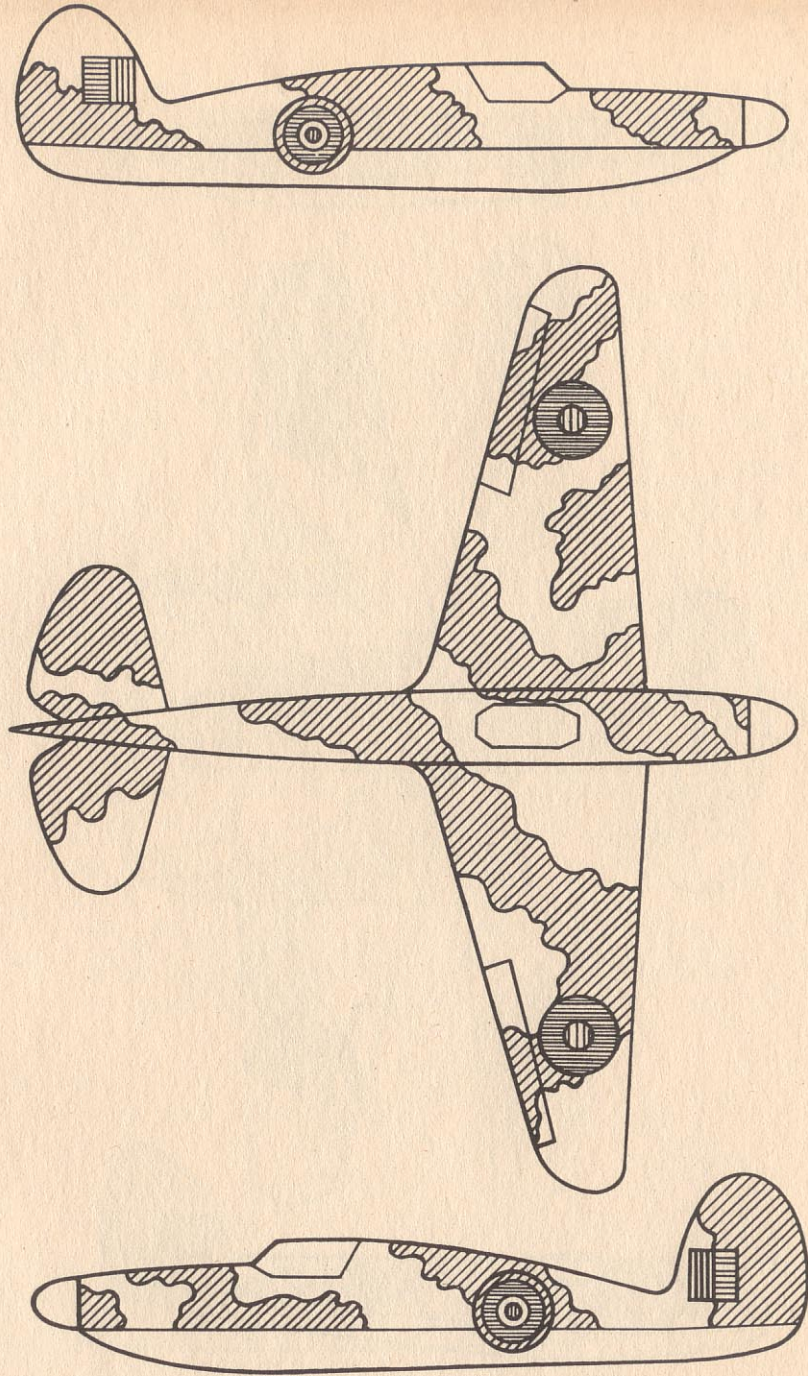
52. Low flying P.R. aircraft should be camouflaged as follows:—

- (i) UPPER SURFACES
 - (a) UNSHADED AREAS.—Extra dark sea grey.
 - (b) SHADED AREAS.—Extra dark sea green.
- (ii) UNDER SURFACES.—P.R.U. mauve.
- (iii) BOUNDARY BETWEEN UPPER AND UNDER SURFACES.—Pattern No. 1.
- (iv) SPINNERS.—Extra dark sea grey, or extra dark sea green.

Note . . . The Service is permitted licence in the camouflaging of P.R. aircraft.

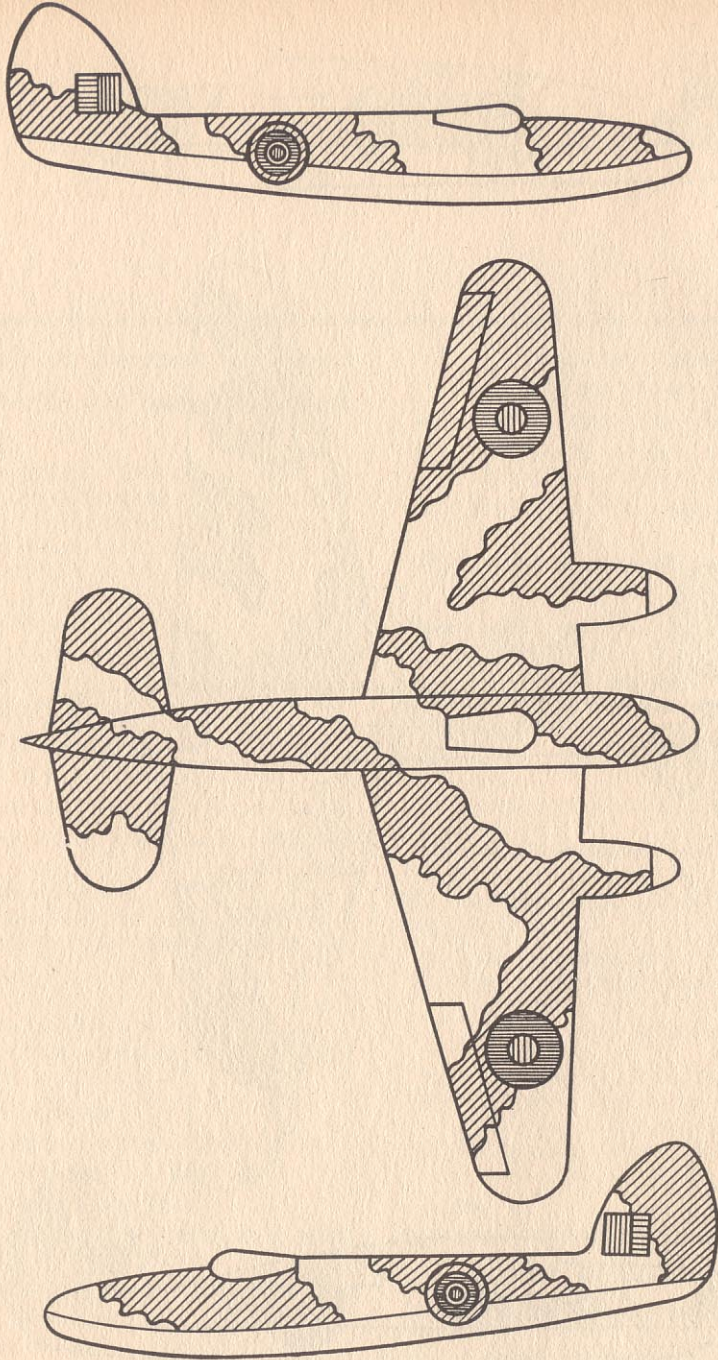
Meteorological aircraft (as allotted by the Service)

53. Aircraft allotted within the Service for meteorological duties should remain camouflaged in the operations colourings used for the normal rôle of the aircraft.



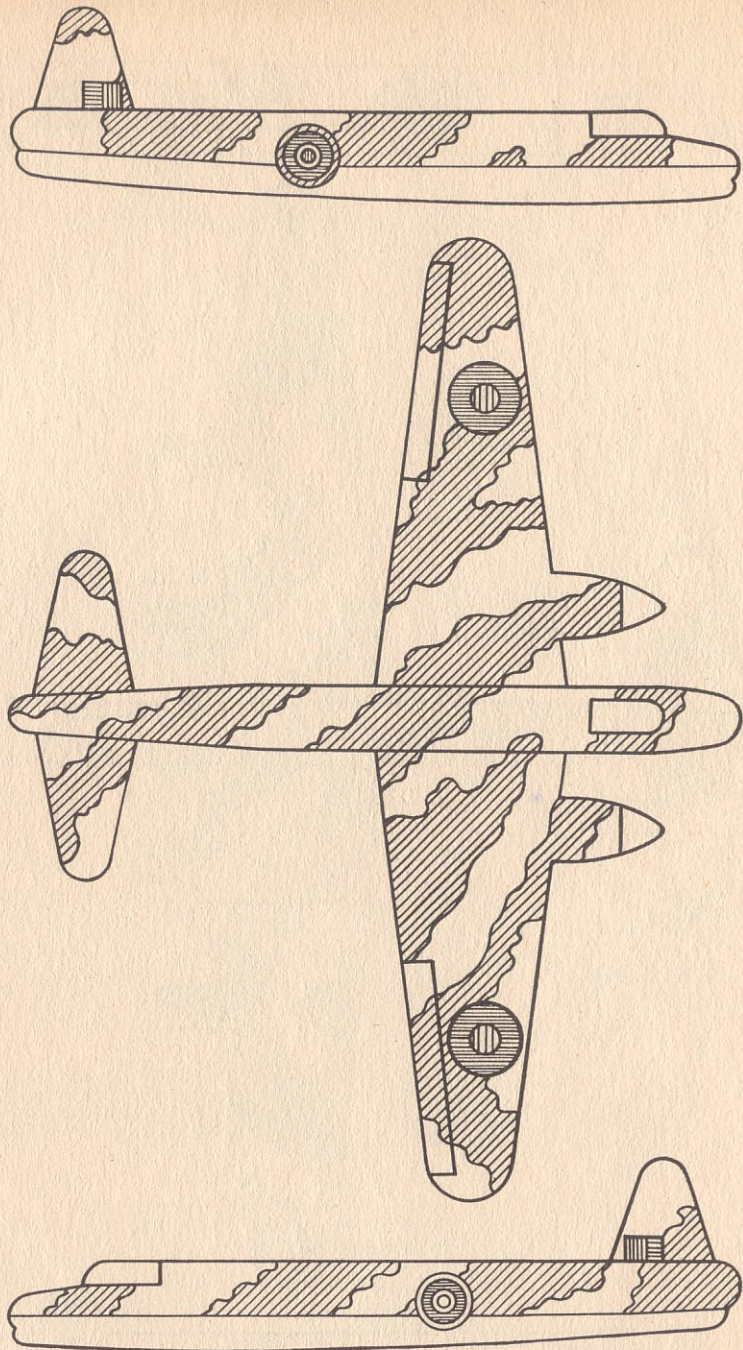
THIS DIAGRAM ILLUSTRATES THE DISRUPTIVE PATTERN ONLY AND DOES NOT ILLUSTRATE PRECISELY THE RELATION BETWEEN UPPER AND UNDER SURFACES

Fig. 4.—Single-engined monoplanes



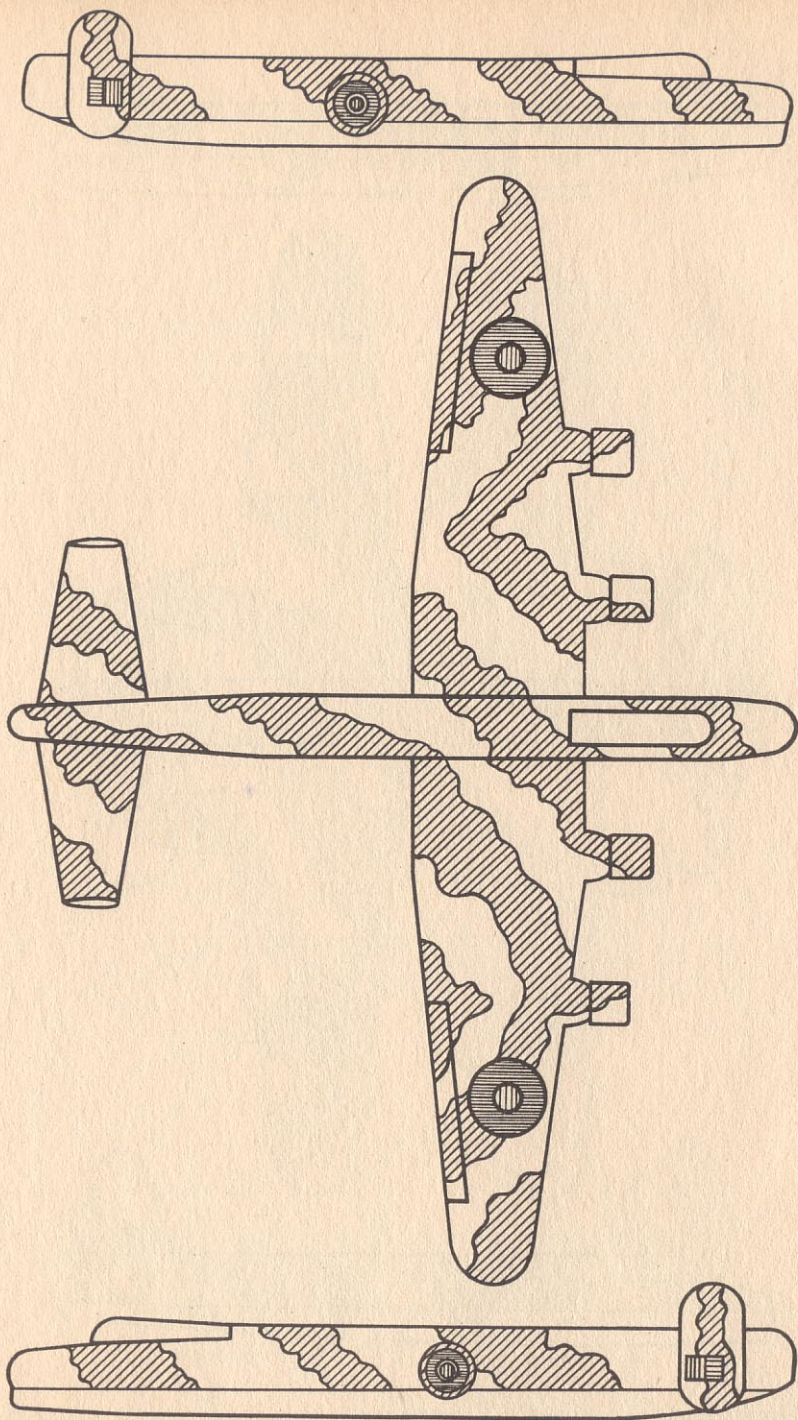
(APPLICABLE WHEN THE WING SPAN IS LESS THAN 75 FEET)
THIS DIAGRAM ILLUSTRATES THE DISRUPTIVE PATTERN ONLY AND DOES NOT
ILLUSTRATE PRECISELY THE RELATION BETWEEN UPPER AND UNDER SURFACES

Fig. 5.—Twin-engined monoplanes



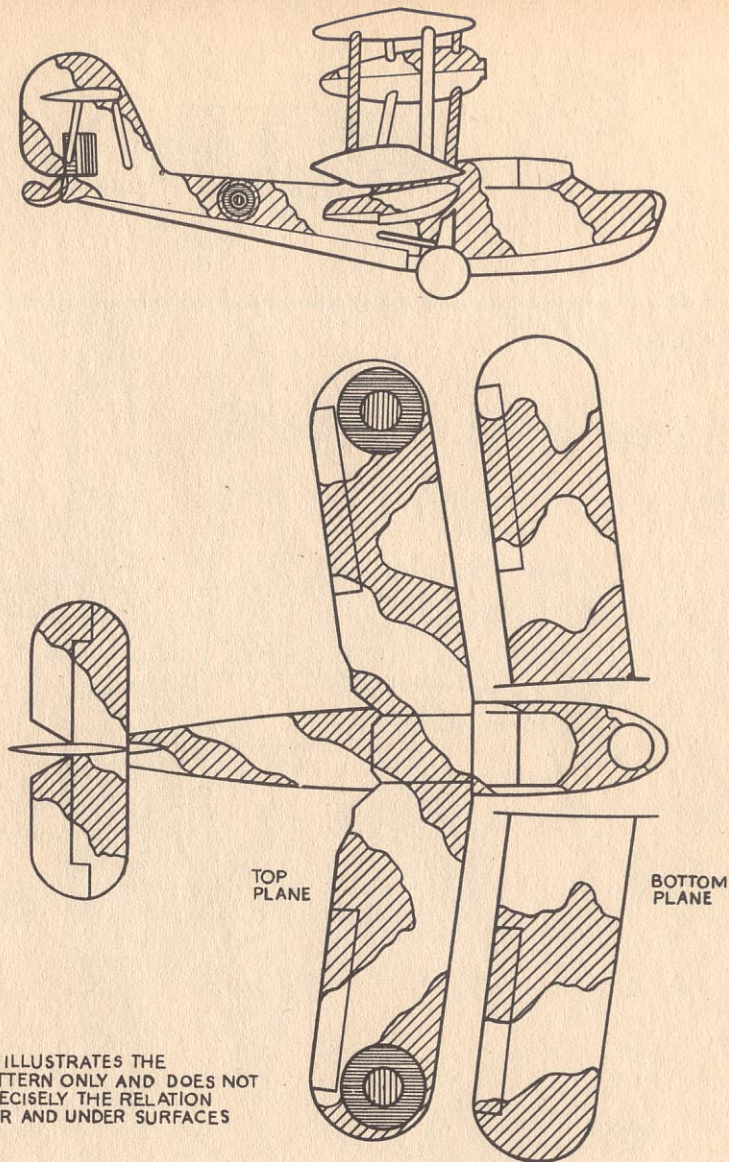
(APPLICABLE WHEN THE WING SPAN IS MORE THAN 75 FEET)
THIS DIAGRAM ILLUSTRATES THE DISRUPTIVE PATTERN ONLY AND DOES NOT
ILLUSTRATE PRECISELY THE RELATION BETWEEN UPPER AND UNDER SURFACES

Fig. 6.—Large twin-engined monoplanes



THIS DIAGRAM ILLUSTRATES THE DISRUPTIVE PATTERN ONLY AND DOES NOT ILLUSTRATE PRECISELY THE RELATION BETWEEN UPPER AND UNDER SURFACES

Fig. 7.—Four-engined monoplanes



THIS DIAGRAM ILLUSTRATES THE
DISRUPTIVE PATTERN ONLY AND DOES NOT
ILLUSTRATE PRECISELY THE RELATION
BETWEEN UPPER AND UNDER SURFACES

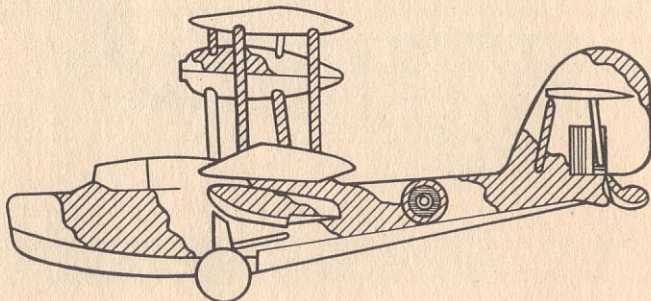
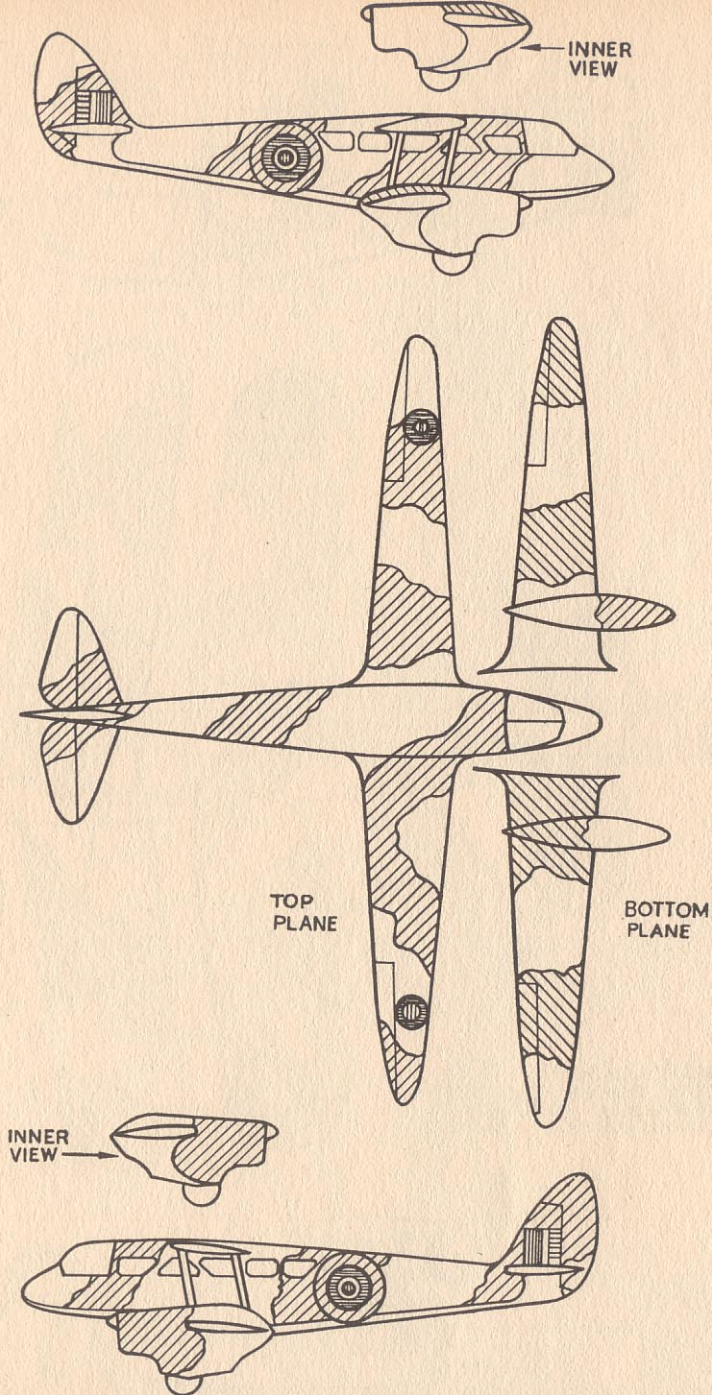


Fig. 8.—Single-engined biplanes



THIS DIAGRAM ILLUSTRATES THE DISRUPTIVE PATTERN ONLY AND DOES NOT ILLUSTRATE PRECISELY THE RELATION BETWEEN UPPER AND UNDER SURFACES

Fig. 9.—Twin-engined biplanes

Chapter 2 . . . IDENTIFICATION MARKINGS

Introduction

1. Identification markings on aircraft are of the following types:—

- (i) National marking—roundel
- (ii) Code letters.
- (iii) Serial number.
- (iv) Tail fin marking.

(v) Additional markings for aircraft with special roles.

National marking—roundel

2. The four types of roundel in use are shown in fig. 1 to 4. The roundel to be used on any particular type of aircraft can be found from Table I at the end of this Chapter.

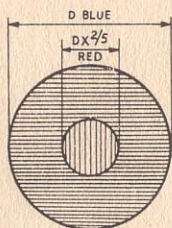


Fig. 1.—National marking I

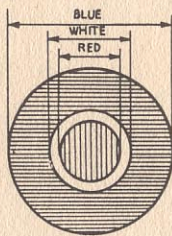


Fig. 2.—National marking II

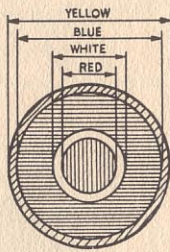


Fig. 3.—National marking III

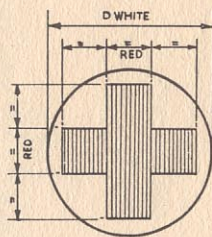


Fig. 4.—National marking IV

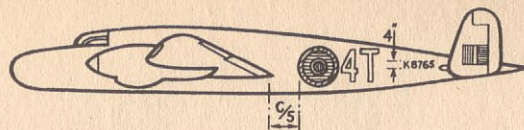
3. DIMENSIONS OF NATIONAL MARKING—ROUNDEL.—

(i) National marking I.—If the distance between the control surfaces on the wing exceeds 7 ft. 2 in. the diameter of the outer ring is to be 7 ft. with equal margins fore and aft. The diameter of the outer ring

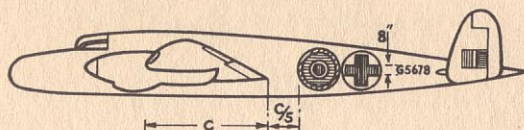
shall in no case be less than 2 ft. 6 in. The diameter of the red disc is two-fifths that of the blue ring.

(ii) National marking II, III and IV.—The diameter varies with the type of aircraft, as follows:—

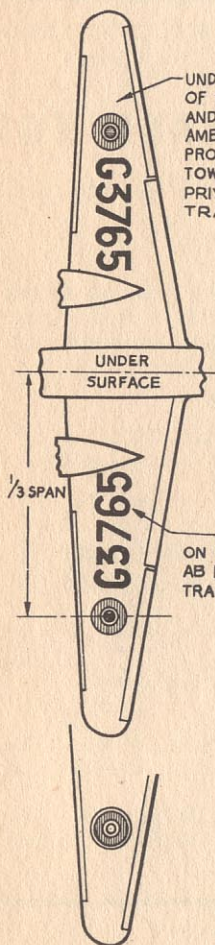
Type of aircraft	Outside diameter of each colour band in inches			
	Red	White	Blue	Yellow (National marking III only)
Small	6	8	16	18
Medium	12	16	32	36
Large	18	24	48	54



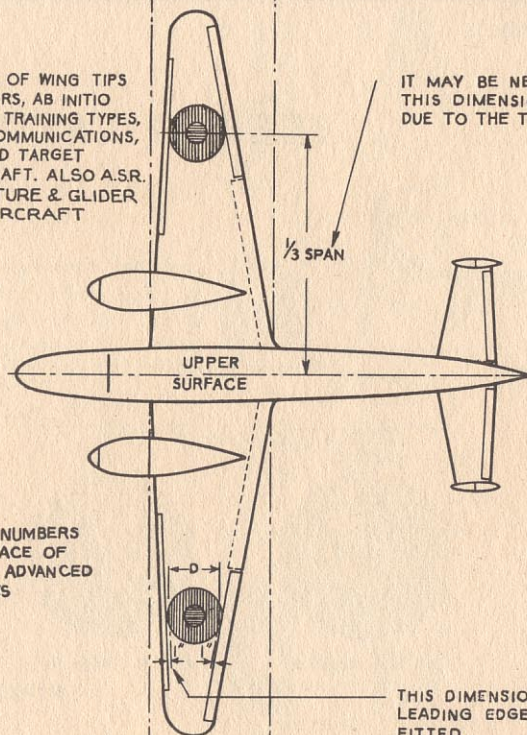
NAVAL



AMBULANCE



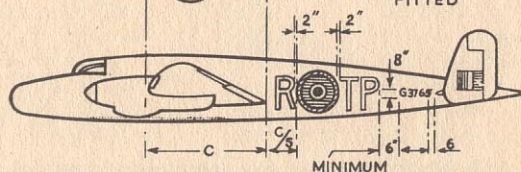
UNDERSURFACE OF WING TIPS OF DAY FIGHTERS, AB INITIO AND ADVANCED TRAINING TYPES, AMBULANCE, COMMUNICATIONS, PROTOTYPE AND TARGET TOWING AIRCRAFT. ALSO A.S.R. PRIVATE VENTURE & GLIDER TRAINER AIRCRAFT



IT MAY BE NECESSARY TO REDUCE THIS DIMENSION ON CERTAIN AIRCRAFT, DUE TO THE TAPER OF THE WINGS

SERIAL NUMBERS ON UNDERSURFACE OF AB INITIO AND ADVANCED TRAINING TYPES

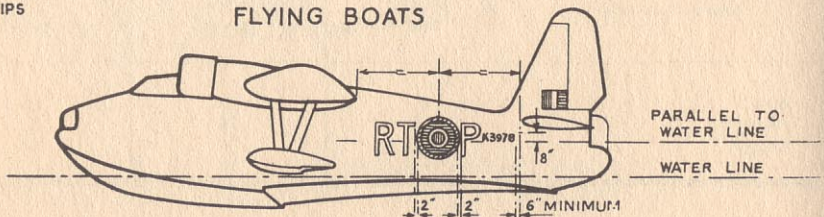
THIS DIMENSION TO BE TAKEN FROM LEADING EDGE WHEN SLATS ARE NOT FITTED



R.A.F.

ROUND FOR BOTH WING TIPS ON A.A. (SEARCHLIGHT) CO-OPERATION AIRCRAFT

FLYING BOATS



PARALLEL TO WATER LINE

WATER LINE

Fig. 5.—Identification markings—positioning for monoplanes

Note . . . For single seat fighters the roundels to be used are those shown for medium size aircraft. The large sizes are to be used on heavy bombers and the small on light trainer types or other aircraft which have slim or boom type fuselages where it is impracticable to apply a larger size of roundel.

4. LOCATION OF NATIONAL MARKING — ROUNDEL.—The positions of the roundels are shown in fig. 5 and 6.

Code letters

Colours

5. The code letters, known as identification marking 'A', consist of the squadron two-letter code and the aircraft letter. These are located on each side of the fuselage adjacent to the roundel, and are applied in the following colours:—



Fig. 7.—Code letters—identification marking 'A'

- (i) **SKY.**—For day fighters and Fighter Command O.T.U. aircraft, excluding night fighters.
- (ii) **LIGHT SLATE GREY.**—For Coastal Command aircraft which have white under-surfaces.
- (iii) **DULL RED.**—For other operational aircraft and O.T.U. aircraft, excluding Fighter Command O.T.U. day fighter aircraft.

Dimensions

6. The spacing and dimensions for standard code letters are given in fig. 7. Smaller letters are used only when the space available is insufficient for the standard sizes. Between letters and the roundel there should be a 2 in. space.

Positioning

7. The squadron two-letter code may be applied either forward or aft of the fuselage roundel according to the space available. The single aircraft letter is then to be applied at the opposite side of the roundel. The two letters of the squadron code are not to be separated under any circumstances; for example:—

Squadron code letters	TP
Aircraft letter	R
Port side	R roundel TP, reading from left to right.
Starboard side	TP roundel R, reading from left to right.

8. On aircraft where the mainplane is set farther aft than normally (for example, aircraft with tricycle undercarriages), the squadron code letters may be applied either forward or aft of the fuselage roundel, and the aircraft letter immediately forward of the leading edge of the mainplane. In such instances, however, the squadron letters must be positioned in the same manner relative to the roundel (forward or aft) on both sides of the aircraft.

Serial number

9. The serial number of an aircraft normally appears on the sides of the fuselage and on the under surfaces of the wings (the lower wings of a biplane). It is initially applied by the aircraft manufacturer and should be faithfully copied when an aircraft is being re-finished. Three types of serial numbers, as shown in fig. 8, 9, and 10 are in use. The type of serial number, and the colour of the number, to be used on any particular type of aircraft can be obtained from Table I at the end of this chapter.

10. LOCATION OF SERIAL NUMBERS.— See Table I and fig. 5 and 6.

Fig. 8.—Serial number—
identification marking 'B'



Fig. 9.—Serial number—
identification marking 'C'

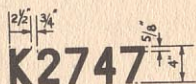


Fig. 10.—Serial number—
identification marking 'D'



$H = \frac{1}{2}$ CHORD AT $\frac{1}{3}$ SPAN FROM $\frac{1}{2}$
OF AIRCRAFT WITH A MAXIMUM
HEIGHT OF 5'0" $W = H \times \frac{3}{8}$ $T = H \times \frac{1}{8}$

Tail fin markings

11. A standard tail fin marking is shown in fig. 11, the width and height of stripes being as stated in para. 12. The marking should appear on both sides of the fin and on both sides of each fin of an aircraft with twin rudders. Variations of the standard marking are permitted for differing types of fin as follows:—

- (i) **STANDARD MARKING.**—The standard marking shown in fig. 11 is to be used wherever possible. The base of the marking is to be either the top of tail plane or the continuation of the top fuselage line, whichever gives the better vertical surface. The rear edge of the marking is to coincide with the the rear edge of the fin. Where the arrangement shown in fig. 11 is not possible, the centre line of the fin should coincide with the centre line of the white stripe, the red and blue stripes being of equal width.

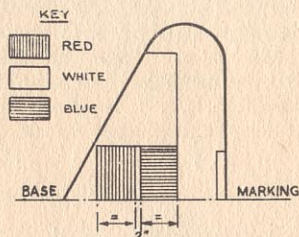


Fig. 11.—Tail fin marking (i)

- (ii) Where the leading edge of the fin makes an angle with the base of the fin of 60° or more, the centre line of the fin should coincide with the centre line of the white stripe, the red and blue stripes being of equal width (see fig. 12).

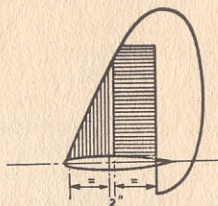


Fig. 12.—Tail fin marking (ii)

- (iii) Where the leading edge of the fin makes an angle of less than 60° with the base of the fin, the forward edge of the vertical red stripe should commence 6 in. to the rear of the most forward point of the fin base (see fig. 13).

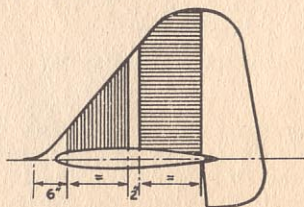


Fig. 13.—Tail fin marking (iii)

- (iv) Where the rudder overhangs the fin to an extent less than two-thirds of the overall height of the fin, a vertical line should be dropped to the tailplane from the angle of the cut-away portion of the fin. This line limits the rear edge of the blue stripe (see fig. 14).

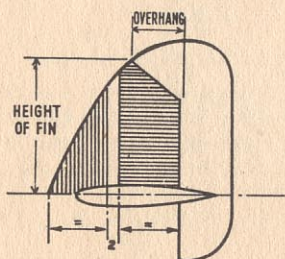


Fig. 14.—Tail fin marking (iv)

- (v) Where the fin extends below the tail plane (on the Cygnet, for example) the lower limit of the stripes is determined by the upper surface of the tailplane (see fig. 15).

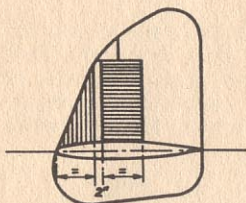


Fig. 15.—Tail fin marking (v)

- (vi) In exceptional instances where the fin overhangs the rudder, the line of the rear edge of the fin at the hinge should be produced upwards to limit the rearward edge of the blue stripe (see fig. 16).

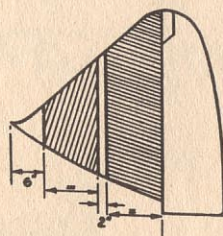


Fig. 16.—Tail fin marking (vi)

- (vii) Where the rudder overhangs the fin to an extent more than two-thirds of the overall height of the fin, the height of the stripes should be determined by a horizontal line produced forward from the angle of the cut-away portion of the fin (see fig. 17).

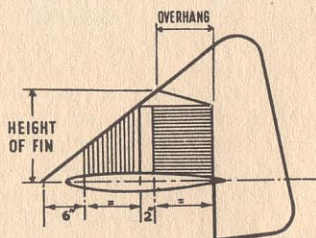


Fig. 17.—Tail fin marking (vii)

12. DIMENSIONS OF FIN MARKINGS. — The dimensions vary with the type of aircraft, as follows:—

Type of aircraft	Width of flash (in.)	Height of flash (in.)	Width of each colour band (in.)		
			Red	White	Blue
Small	18	24	8	2	8
Medium	24	24	11	2	11
Large	36	24	17	2	17

Additional marking for aircraft with special roles

13. PRESENTATION AIRCRAFT.—To distinguish presentation or other particular aircraft, a marking not larger than 9 in. by 6 in., or an inscription in 2 in. letters may be applied to the sides of the fuselage forward of the leading edge of the wing, subject to authority being given through Headquarters of the Command concerned. This marking should be in medium sea grey.

14. PROTOTYPE AIRCRAFT.—Aircraft finished with prototype camouflage should carry the standard marking for Service aircraft, and, in addition, the letter 'P' encircled by a ring on each side of the fuselage adjacent to the roundel. The line forming the ring should be $\frac{1}{2}$ in. in width, and the outside diameter of the ring should be equal to that of the roundel. The lines forming the letter 'P' should be 3 in. in width, and the extremities of the letter should

be $\frac{1}{2}$ in. from the inside of the ring. The colour of both ring and letter should be yellow.

Finishing materials

15. Finishing materials for the identification marking of aircraft are manufactured to the same specifications as camouflage finishes, and may be of cellulose or synthetic composition. When painting identification markings it is important to use colours of the same type (C or S) as the camouflage finish of the aircraft. The camouflage finish can be identified by the method described in Sect. 1, Chap. 2.

Boundary between colours

16. When applying identification colours a precise dividing line is necessary between the identification colours and the adjacent finish. At the same time the colours should be applied evenly and not too thickly, so as to preserve the overall smoothness of the aircraft.

TABLE I
IDENTIFICATION MARKINGS ON AIRCRAFT

Type of aircraft or operational role	National Marking—Roundel			Colour of Code Letters 'A'	Serial Numbers		Additional recognition markings and Remarks
	Upper surface of wing tips	Under surface of wing tips	On both sides of fuselage		Pattern	Colour	
Air observation	I	I	III	Dull Red	B	Night	"Geneva" Red Cross (National Marking IV) to be applied immediately aft of fuselage roundels
Air/sea rescue	I	II	III	Dull Red	B	Night	
Ambulance	I	II	III and IV	Dull Red	B	Night	
Amphibians	I (top planes)	None	III	As appropriate to role	C	Night	Markings should be as for previous role
Anti-aircraft co-operation ...	I	III	III	Dull Red	B	Night	
Army co-operation	—	—	—	—	—	—	
Auto-giros	—	—	—	—	—	—	Markings should be as for their particular role
Bombers—see "Day bombers" or "Night bombers"							
Coastal	I	None	III	Light slate grey	B	Light slate grey	These marking schemes correspond with camouflage schemes 'A' and 'B' (see Chap. I of this Section)
Coastal (Special duties) Scheme 'A'	I	None	III	Light slate grey	B	Night	
Coastal (Special duties) Scheme 'B'	I	None	III	Dull Red	B	Red	
Communications (Monoplanes)	I	II	III	Dull Red	B	Night	A vertical band of Sky, 18 in. wide, should be applied around fuselage immediately forward of tail unit
Communications (Biplanes) ...	I (top planes)	II (bottom planes)	III	Dull Red	B	Night	
Day Bombers (Bomber Command)	I	None	III	Dull Red	B	Night	
Day Bombers (Desert areas) ...	I	None	III	Dull Red	B	Night	The upper surface of the wings should be yellow for a distance of 8 ft. from the extreme tips
Day Bombers (Other overseas areas)	I	None	III	Dull Red	B	Night	
Day fighters (Fighter Command)	I	II	III	Sky	B	Night	
Day fighters (Desert areas) ...	I	II	III	Sky	B	Night	The upper surface of the wings should be yellow for a distance of 8 ft. from the extreme tips
Day fighters (Other overseas areas)	I	II	III	Sky	B	Night	
Fighters—see "Day fighters", "Night fighters" or "Intruders"							
Glider trainers	I	None	III	Dull Red	B	Night	Markings should be as for previous role
Intruders (Fighter Command)	I	None	III	Sky	B	Night	
Intruders (Desert areas) ...	I	None	III	Sky	B	Night	
Intruders (Other overseas areas)	I	None	III	Sky	B	Night	National marking II on wing tip undersurfaces of day fighters only. The words ROYAL NAVY should appear on rear of fuselage of all Naval aircraft in letters 4 in. high, 2½ in. wide, and colour Night
Meteorological (Service allotted)	—	—	—	—	—	—	
Meteorological (Special duties)	I	None	I	Dull Red	B	Night	
Naval aircraft (Monoplanes) ...	I	None	III	As appropriate to role	C	Night	The letter "P" should appear on fuselage in accordance with para. 14
Naval aircraft (Biplanes) ...	I (top planes)	None	III	As appropriate to role	C	Night	
Night bombers (Bomber Command)	I	None	III	Dull Red	B	Red	
Night bombers (Desert areas) ...	I	None	III	Dull Red	B	Red	A vertical band of Sky, 18 in. wide, should be applied around fuselage immediately forward of tail unit
Night bombers (Other overseas areas)	I	None	III	Dull Red	B	Red	
Night fighters (Fighter Command)	I	None	III	Dull Red	B	Night	
Night fighters (Desert areas) ...	I	None	III	Dull Red	B	Night	As for their normal role
Night fighters (Other overseas areas)	I	None	III	Dull Red	B	Night	
Photographic reconnaissance aircraft (high flying)	I	None	I	Dull Red	B	Night	
Photographic reconnaissance aircraft (low flying)	I	None	III	Dull Red	B	Night	As for their normal role
Private venture aircraft	I	II	III	None	None	—	
Prototypes (including prototype gliders)	I	II	III	None	B	Night	
Target (pilotless) aircraft ...	I	None	III	Dull Red	B	Night	As for their normal role
Target towing aircraft	I	II	III	Dull Red	B	Night	
Training aircraft (monoplanes except glider trainers) ...	I	II	III	Dull Red	D	Night	
Training aircraft (biplanes) ...	I (top planes)	II (bottom planes)	III	Dull Red	D	Night	As for their normal role
Transport aircraft	I	II	III	Dull Red	B	Night	
Tugs	—	—	—	—	—	—	



Light Earth



Dark Earth



Light Green



Dark Green



Extra Dark Sea Green



Grey Green



Medium Sea Grey



Dark Sea Grey



Extra Dark Sea Grey



Ocean Grey



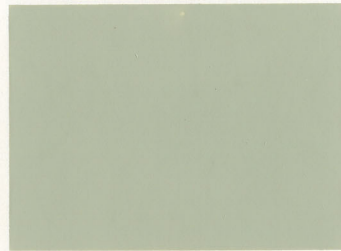
Light Slate Grey



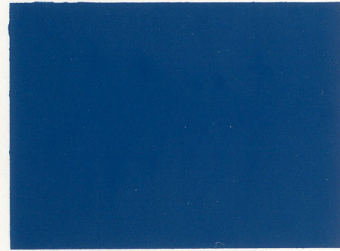
Dark Slate Grey



Sky Grey



Sky



Deep Sky



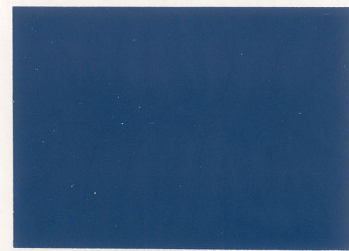
Sky Blue



Azure Blue



Light Mediterranean Blue



Dark Mediterranean Blue



P.R.U. Blue



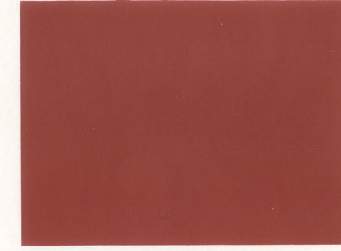
Middle Stone



Night



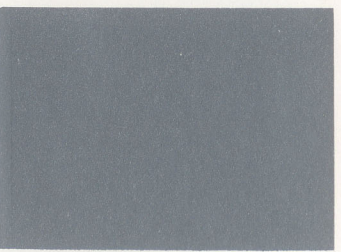
Yellow



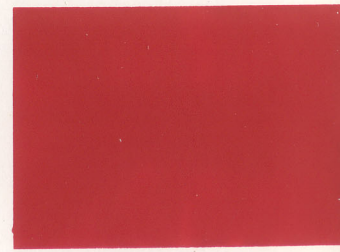
Red



Blue



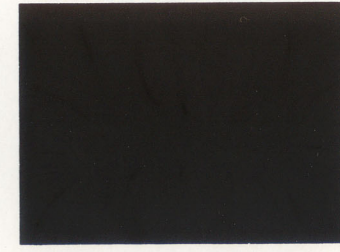
Aluminium



Matt Red



Matt Blue



Semi Matt Black