

# WINGNUT WINGS



## Sopwith Triplane "Raymond Collishaw"

Sopwith's wonderful 80hp Scout (Pup) immediately impressed when unveiled in February 1916 and quickly went into service with the RFC (Royal Flying Corps) and RNAS (Royal Naval Air Service) and long term production. Sopwith's follow up machine, the 110hp Clerget 9z powered Sopwith Triplane prototype N500 was approved on 28 May 1916, only 4 months after the Pup prototype. It was sent to France in mid June 1916 for trials with A Squadron (later 1 Naval Squadron) RNAS where it reportedly went into action as soon as it arrived. A 2nd prototype, the 130hp Clerget 9b powered N504, was flying by August 1916 and was similarly dispatched to France for trials. Even more powerful and maneuverable than the highly respected Pup, Sopwith's new Triplane or 'Tripehound' (often shortened to 'Tripe') as it became known, was an instant hit with the young RNAS pilots lucky enough to fly them. Although superficially similar to the 80hp Sopwith Pup, the Tripe fuselage was designed from the outset for the larger 110hp & 130hp Clerget engines. The wingspan was the same but the triple 'short chord' wings afforded greater visibility, more maneuverability and a phenomenal rate of climb. Although initially armed only with a single Vickers machine gun like the Pup, the Tripe could out-climb and out-maneuver the best German fighters of the time, the twin gun Albatros D.II & D.III (and later D.V), and it was faster too!

So promising was the new Sopwith design that the RFC had an order "under consideration" for 50 aircraft a mere 10 days after the prototype was unveiled, although ultimately the RFC would only receive 1 aircraft with the vast majority going to the RNAS. A handful were operated by the French Centre d'Aviation Maritime and one was used by Russia (and remarkably survives to this day). The performance of the Tripe so impressed the Germans that much time and expense was expended by their aircraft industry in attempts to come up with their own Triplane. Ultimately the only successful design was the famous Fokker Dr.1 which started to appear at the front towards the end of 1917, about the time that Sopwith's design was being phased out of front line service in favour of their Camel. The arrival of the superior Camel meant that merely 150 Tripes were built by Sopwith, Clayton & Shuttleworth and an inexperienced company of shopfitters at Oakley & Co who had their contract cancelled after completing only 3 aircraft (one of which survives to this day). Any history of this aircraft here is of necessity very brief, therefore we encourage you to seek out the references mentioned below for a more thorough understanding of this interesting aircraft.

WW1 aircraft colours are contentious at the best of times and we have done our best to provide what we consider to be accurate painting information. Sopwith Triplanes appear to have been doped with both PC10 and PC12, the latter being noted on Sopwith factory drawings for the Tripe. Service wear and tear required that they were frequently recovered and re-doped so the factory applied colour scheme would not last long. There is considerable controversy as to what colour PC10 (Protective Covering number 10) actually was. Made from mixes of yellow ochre, iron oxide and lamp black pigments it varied between olive drab and chocolate brown, depending on the mix and, presumably, time spent exposed to the elements. It appears that early, fresh PC10 appeared more olive drab while later mixes and aircraft exposed to the elements for some time would appear more chocolate brown. PC12 is slightly less controversial although previous reports of it being red brown are in error and it was actually a chocolate brown (original samples examined from a late production Sopwith Snipe are a very close match to FS26120). The undersides of the wings, tailplane and fuselage were clear doped Irish Linen which appeared almost white when new but the dope would yellow with age resulting in a creamy yellowish colour. Metal cowling panels were treated to a 'turned' finish on Sopwith built machines while those from Clayton & Shuttleworth were usually given a coat of enamel paint approximating PC10 or PC12 dope. Small metal fittings and brackets were usually black although some appear to have been finished in grey. All surfaces exhibited a shiny gloss appearance when new which would lose its shine and fade relatively quickly.

Richard Alexander 2018

<b>Wingspan:</b>	<b>Length:</b>	<b>Max Weight:</b>	<b>Max Speed:</b>
26.5ft (8.07m)	19.5ft (5.94m)	1561lb (708kg)	113mph (182kph)
<b>No. Manufactured:</b>	<b>Production:</b>	<b>Armament:</b>	
146 (approx)	June 1916 to November 1917	1 or 2 .303 (7.7mm) Vickers machine gun	
<b>Ceiling:</b>	<b>Engine:</b>		
20,500 ft (6250m)	110hp Clerget 9z or 130hp Clerget 9b		

### References:

Windsock Datafile 22 Sopwith Triplane, J.M Bruce, 1990 - Osprey Sopwith Triplane Aces of World War 1, Norman Franks, 2004  
1914-18 Aviation Heritage Trust - The Vintage Aviator LTD - Private Collections

# Sopwith Triplane "Raymond Collishaw"

**Warning:** Choking hazard. Keep small parts and plastic bags away from children. Use glue and paint in a well ventilated area. Always wear protective eyewear when cutting and a protective mask when painting, gluing and sanding. Do not breathe dust from polyurethane resin parts (if included). Beware of sharp edges on metal parts.

**Assembly:** **Read all the instructions carefully before starting assembly.** Use glue intended for plastic models. Assemble metal and resin parts (if included) using Cyanoacrylate (CA) or epoxy glue. Before assembly select a marking option and note optional parts required in instructions.

**Rigging:** If installing rigging please drill out all location holes with a 0.5mm drill bit to a depth of at least 1mm. To make rigging as simple as possible we recommend using stretchy elastic type material like 'EZ Line' etc and not trying to replicate any turnbuckles.

**Painting:** Only use paints **designed and suitable** for plastic model kitsets.

**Decals:** Cut out each decal as required. Soak in warm water for 15 seconds. Slide off backing paper onto **gloss painted surface of model (not just clear coated plastic)**. For large decals it is helpful to apply a drop of water to the area they are being applied to. This will make it easier to maneuver them into the correct position.

**Hints & Tips:** Please visit our website for additional photos, hints and tips to assist you in getting the best result from your Wingnut Wings model.

<b>1</b>	Construction Step		Choose		Attention		Remove
<b>A1</b>	Part Number		Do Not Cement		Option		Drill
<b>5</b>	Decal		Cement For Metal		Other Side		Paint Colour
<b>P1</b>	Photo Etch Part						

	All colours	Tamiya	Humbrol	Federal Standard
a	Brass	X31	54	
b	Copper	XF6	12	
c	Gun Metal	X10	27004	
d	Aluminium	XF16	27001	
e	Steel	XF56	27003	
f	Light Wood* - semi gloss	XF78	93	20340*
g	Dark Wood* - semi gloss	XF68	98	20111*
h	Leather - semi gloss	XF52	62	20219
i	Irish Linen - gloss	X2 (x10) + XF55 (x1)	22 (x10) + 148 (x1)	17886
j	PC12 - semi gloss	XF10 (x5) + XF1 (x1)	251	26120
k	PC10 - semi gloss	XF62 (x2) + XF10 (x1)		
l	Black - semi gloss	X18	85	
m	White - semi gloss	XF2	130	
n	Rubber - matt	XF69	66	

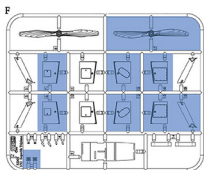
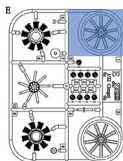
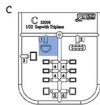
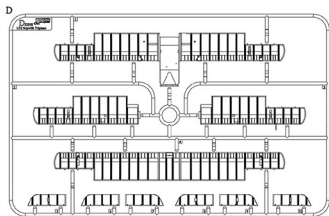
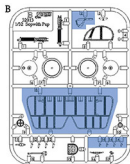
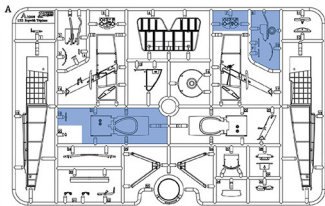
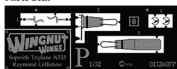
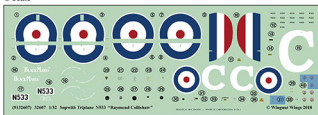


Photo Etch



■ = Not Used

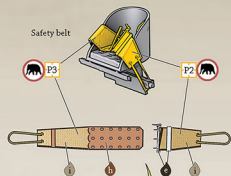
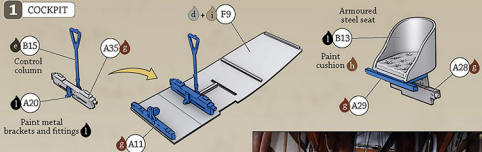
Decals



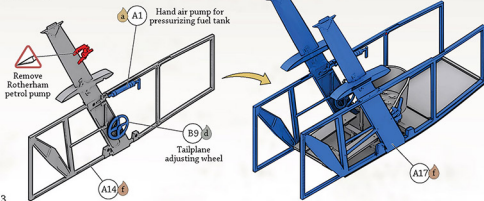
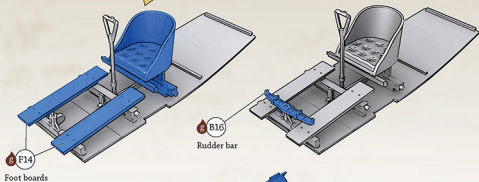
Figure



# 1 COCKPIT

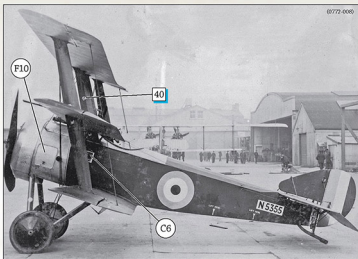
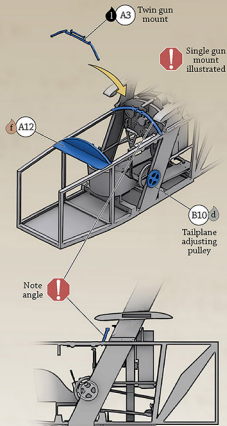
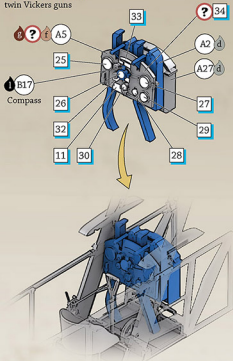


Cockpit and seat from The Shuttleworth Collection's beautiful reproduction Sopwith Triplane N6290. All following colour photos are of this aircraft (unless noted otherwise). Note the armoured steel seat, leather cushion, Irish Linen fuselage fabric and pale wooden stringers. The aluminium wheel on the right is for adjusting the tailplane angle of incidence.



## 2 COCKPIT continued

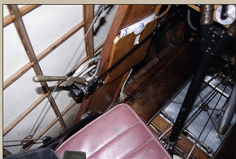
Instrument board for twin Vickers guns



Clayton & Shuttleworth built Sopwith Triplane N5355 is from the 1st production order of 40 aircraft from July 1916 (numbers N5350 to N5389). N5355 led a chequered career including service with 10(N) and 11(N) Squadrons before being shot down by Josef Jacobs of Jasta 7 on 20 August 1917, the pilot, CH Weir of 10(N) Squadron, was made POW. Note the engine access panel (F10), inspection window (C6) and characteristic aileron hinge gap. As far as we can ascertain all Clayton and Shuttleworth built Tripes had their aileron control horns painted white to match the cockades.

### Sopwith Triplane N6920 Shuttleworth Collection

It is important to note that the details shown here on this remarkably reconstructed aircraft are not necessarily appropriate for the particular First World War Sopwith Triplane N533 you are modelling.



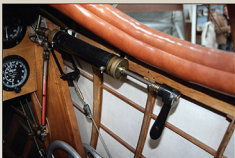
Spark advance lever fixed to the left cabane strut. The wooden document holder appears to be a recent fitting.



The bracing wires and control cables make for a rather cluttered appearance between the foot boards (F14) and empty shell chute from its single gun. Note the aluminium and linen areas of the fuselage bottom.



Instrument board showing one arrangement of instruments which could vary considerably from one aircraft to another. This aircraft is missing its Type 5/17 compass (B1). Note the cord wrapped around the spade grip of the control column which was not a feature of WW1 era Triplanes as far as we can ascertain.



Hand air pump for pressurizing the fuel tank. Note the fuel gauge positioned against the right cabane strut.



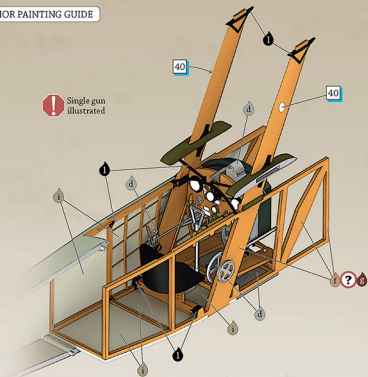
Tailplane angle of incidence adjusting wheel (B9) and pulley (B10) mounted through the right cabane strut.



Storage locker at rear of cockpit (A12). Note the method of attaching the modern 4 point safety harness shoulder straps. The usual safety belt arrangement for RFC aircraft during WW1 was the wide 'waist belt' (P2 & P3).

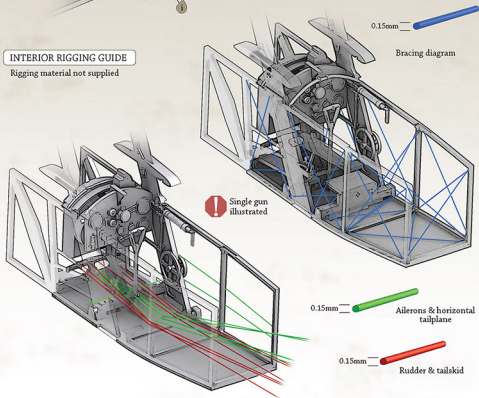
## INTERIOR PAINTING GUIDE

! Single gun illustrated

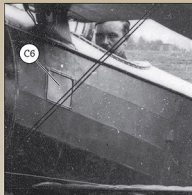
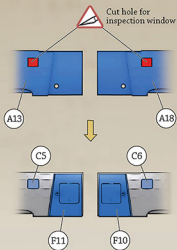


## INTERIOR RIGGING GUIDE

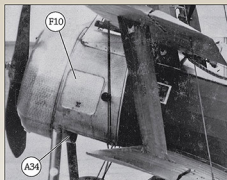
Rigging material not supplied



### 3 FUSELAGE



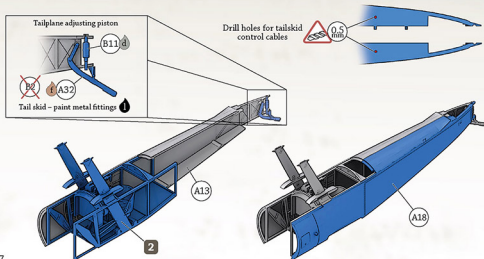
Small inspection window **C6** detail from the Clayton & Shuttleworth built Sopwith Triplane N5364 as seen on page 11.



Medium sized square access panel **F10** as seen on Clayton & Shuttleworth built Triplane N5355 on page 4. Note the small cowling **A34** fitted between the front undercarriage legs.



Tail skid detail.

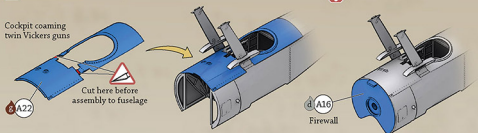




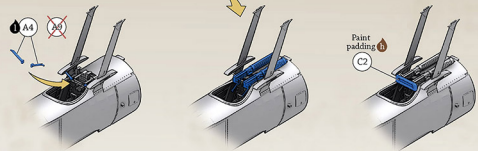
#### 4 FUSELAGE continued

! Single gun illustrated

Cockpit coaming  
twin Vickers guns



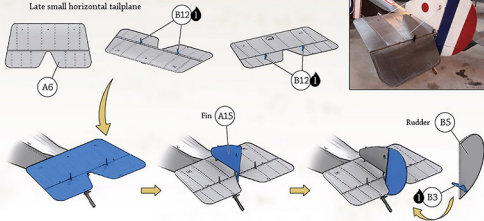
Unfortunately the best image available to us of a twin Vickers installation on a Sopwith Triplane, the unidentified Clayton & Shuttleworth built Tripe seen on page 17.



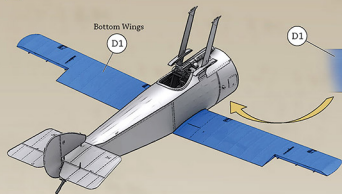
#### 5 TAILPLANE

Late style horizontal tailplane. The new smaller horizontal tailplane improved performance and was introduced into production in February 1917 with earlier production aircraft having them retrofitted when supply allowed.

Late small horizontal tailplane

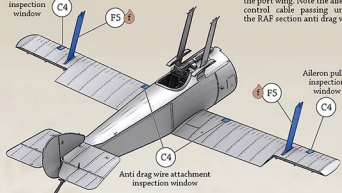


## 6 WINGS AND STRUTS

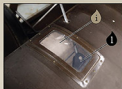


1 min  
  
 Drill holes for  
 twin empty shell  
 chutes

Aileron pulley  
 inspection  
 window

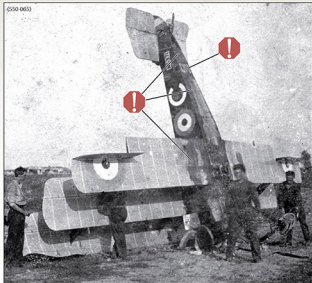


> Anti drag wire attachment inspection window detail in the port wing. Note the aileron control cable passing under the RAF section anti drag wire.



Aileron control cable inspection window and port wing strut attachment detail.

(000 063)



Clayton & Shuttleworth built Sopwith Triplane N5371 "C" of 9(N) Squadron RNAS suffered an engine failure on 16 June 1917 and this photograph may well show the resulting forced landing which has wiped off the undercarriage. The smaller late horizontal tailplane is evident, as are the tail skid control cable exit holes & patches on the underside of the clear doped Irish Linen fuselage bottom which has been heavily stained from the inside by castor oil from the engine. Note how the underside rib tapes appear paler than the wings, an effect caused by the translucent linen appearing darker due to the PC10/PC12 top colour and the "doubling up" effect of the tapes causing them to appear more opaque. There is no PC10/PC12 wrap around on the undersides of the wings and tailplane of this Tripe.

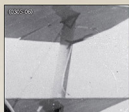
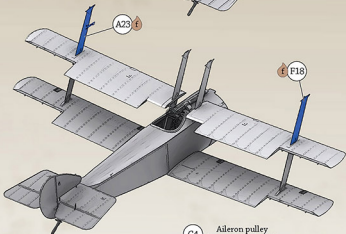
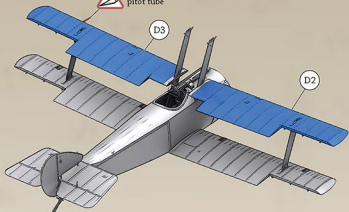
## 7 WINGS AND STRUTS continued



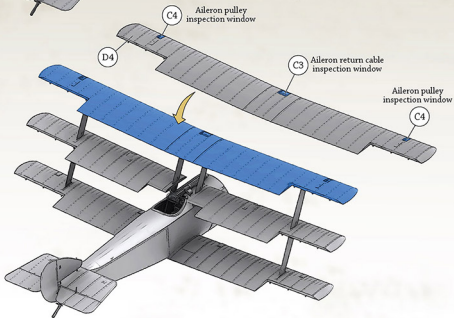
The twin RAF section flying wires pass through the leading edge of the middle wing as show here on Sopwith built Triplane "Peggy 15" (often misidentified as Clayton & Shuttleworth built Tripe N5387).



Remove pitot tube

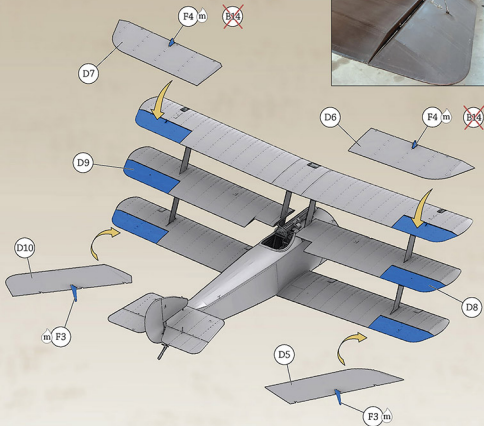


Twin tube pitot head detail from the twin gun Clayton & Shuttleworth built Tripe seen on page 17.

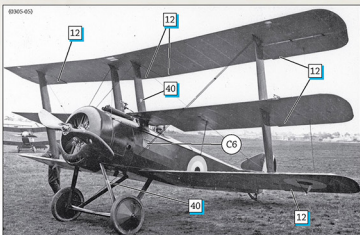


## 8 AILERONS

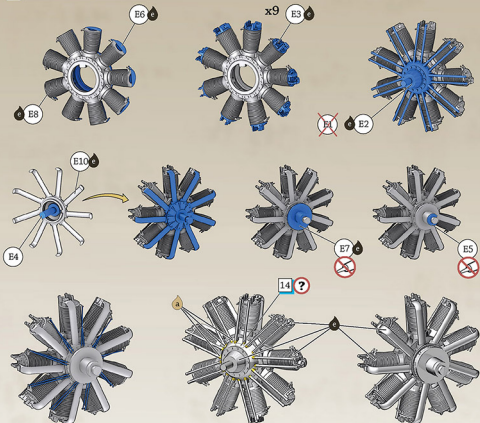
> Port aileron detail from the bottom wing. Note the large 'V' shaped gap caused by the Tripe ailerons being hinged on their bottom edge.



Clayton & Shuttleworth built Sopwith Triplane, believed to be N5364 from the same production order as N5355 seen on page 4. N5364 served with 10(N) Squadron from 16 June 1917 until it was credited as a victory to 7 victory ace Helmut Dilkhey of Jasta 27 on 24 July 1917. The wings folded back in a dive and the pilot TC May was killed in the resulting crash. Note the inspection window (C6) in the fuselage, white aileron control horns, unpainted undercarriage axles and that there is a Clayton & Shuttleworth factory decal applied to one propeller blade. Also note that the PC10/PC12 top colour was not wrapped around to the leading edges of the bottom surfaces of the wings.



**9 CLERGET 130hp 9b ENGINE**



Wiring guide - wire not included

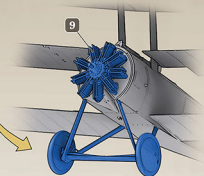
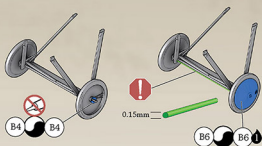
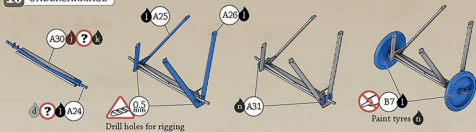


^ In the event of the propeller or engine being removed the gun **MUST** be retimed **13**.

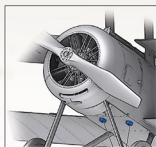
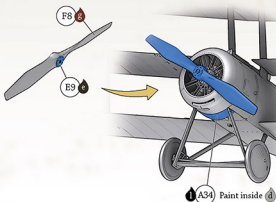
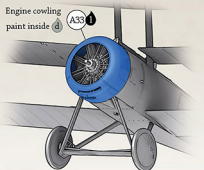
v 130hp Clerget 9b engine which powered about 40 Sopwith built and all the Clayton & Shuttleworth built Tripes when originally delivered.



## 10 UNDERCARRIAGE



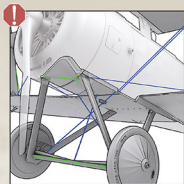
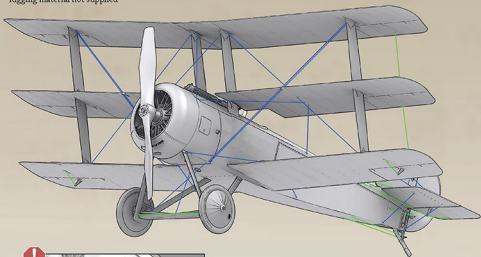
Undercarriage detail from Oakley built twin gun Sopwith Triplane N5912 seen on page 18. Note the empty shell chutes (F2) for the twin guns.



Empty shell chutes for twin Vickers guns

## RIGGING DIAGRAM

Rigging material not supplied



RAF Aerodynamic wires

0.1mm

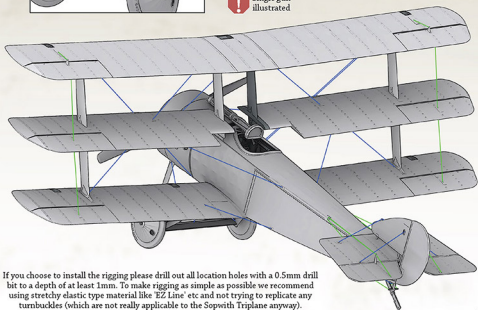
0.3mm

Control cables

0.15mm



Single gun illustrated



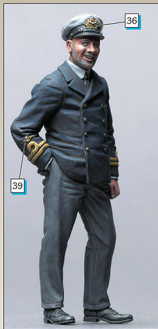
If you choose to install the rigging please drill out all location holes with a 0.5mm drill bit to a depth of at least 1mm. To make rigging as simple as possible we recommend using stretchy elastic type material like 'EZ Line' etc and not trying to replicate any turnbuckles (which are not really applicable to the Sopwith Triplane anyway).

## Flight Lieutenant Raymond Collishaw figure (circa July 1917)



Because figure painters prefer a wide variety of types of paint (enamel, acrylic, oil etc) and many of the colour choices are subjective we will let these larger than life images of the figure painted by John Belcher serve as our painting guide.

Please visit our website for some figure painting hints and tips.



Cap – matt white, matt and gloss black, brass badge with silver eagle **36**

Jacket – matt dark blue, brass buttons and Flight Lieutenant rank insignia **39**

Shirt – matt white

Tie – black

Trousers – matt dark blue

Shoes – gloss black

Collishaw was awarded the Distinguished Service Cross (DSC) on 19 July 1917 and we have included decal **38** if you wish to depict this.



^ Raymond Collishaw sitting in a 203 Squadron RAF Sopwith Camel, possibly D3417, on 12 July 1918.

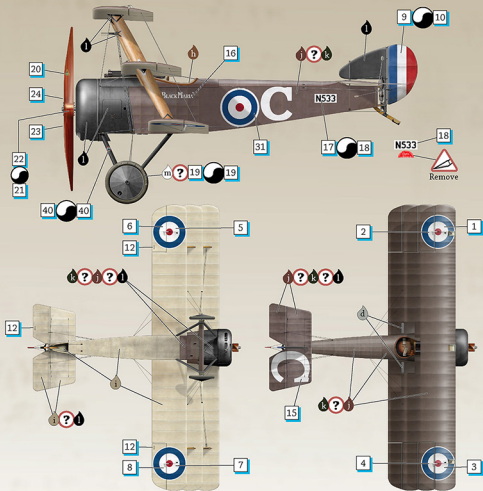
> Raymond Collishaw leaning on a 203 Squadron RAF Sopwith Camel, possibly D3417, on 12 July 1918.



< Raymond Collishaw leaning on a 203 Squadron RAF Sopwith Camel, possibly D3417, on 12 July 1918. Despite now being a Temporary Major in the recently formed RAF, Collishaw is still wearing his RNAS uniform displaying the rank of Squadron Commander. He also wears his Distinguished Service Order (DSO) awarded to him in August 1917.

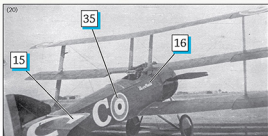


Sopwith Triplane N533 "Black Maria", Raymond Collishaw, 10 Squadron RNAS, July 1917 (60 victories)



Raymond Collishaw was from British Columbia, Canada and was already a seaman when war broke out. He joined the RNAS in January 1916 and flew Sopwith 18.1/2 Strutter bombers until February 1917 when he was posted to 3(N) Squadron which were equipped with the Sopwith Pup. In April 1917 he joined the newly formed 10(N) Squadron flying the Sopwith Triplane where he would be credited with 34 of his victories (14 in N5490, 18 in N5492 & 2 in N533) before being sent back to Canada for a rest in late July 1917. He returned to France in November 1917 as acting Flight Commander at Seaplane Defence Squadron before returning to 3(N) Squadron as Commanding Officer. He continued on as CO after 3(N) Squadron RNAS became 203 Squadron RAF on 1 April 1918 before returning to the UK and assisting in setting up the Canadian Air Force. He commanded 47 Squadron RAF in Russia fighting the Bolsheviks in 1919 and held various commands during WWII before retiring as an Air Vice Marshal in 1943 and returning to Canada.

130hp Clerget 9B powered Sopwith Triplane N533 was from a production order for 6 twin gun aircraft placed with Clayton & Shuttleworth in September 1916 (numbers N533 to N538) and was delivered to 10 Squadron RNAS on 21 July 1917 where it received the famous "Black Flight" markings shown here. Raymond Collishaw was flying N533 when he was credited with 2 victories on 27 July 1917. Note the medium sized square side cowling hatch confirmed in a photograph of N533 subsequent to its use at 10(N) Squadron. This same photo confirms that there was no "Clayton & Shuttleworth" stenciling under the serial number on the starboard side of the fuselage and the usual Rotherham petrol pump was not installed.





An unidentified twin gun Sopwith Triplane from the same September 1916 Clayton & Shurtleworth production order as N533. Despite only 6 aircraft being produced, this aircraft differs from N533 in that it is fitted with a Kotherham petrol pump, retains its factory stenciling under the starboard serial number and has an oval hatch in the side cowling. Note the cockpits with a white outline under the wings which are believed to be peculiar to these late production Clayton & Shurtleworth built twin Vickers armed Tripes and the white aileron control horns.



Oakley built Sopwith Triplane N5912 "94" was unarmed when photographed at the No.2 School of Aerial Fighting and Gunnery in 1918. This is the same aircraft now preserved in the RAF Museum.



#### Product Design by Mark Miller

A background in technical illustration and long term passion for modelling and early aircraft has enabled Mark to produce some of the most stunning 3D renderings of aircraft anyone is likely to see. His artwork has appeared in numerous books and publications from Cross & Cockade, Over the Front, Schiffer and Windsock amongst others.

To see some examples of Mark's work please visit [www.wvi-models.org/Images/Miller/render/index](http://www.wvi-models.org/Images/Miller/render/index)



#### Decal Art by Malcolm Laird

Malcolm has been in the scale model industry since 1981 and now produces his line of Ventura decals and a range of soft cover aviation books mainly with a Kiwi flavour. Outside work he suffers the dual afflictions of restoring old Kawasaki motorcycles and trying to paint impressionist landscapes, with 'mixed' results so far.

Visit Malcolm's web site at [www.venturapublications.com](http://www.venturapublications.com)



#### Figure Sculpting by Mike Good

Mike Good built his first model at 6 years old and never really stopped. This led to a lifelong career in the model business which began Testors in 1979. Models and dioramas lead him to figure modelling and he quit his job at Testors in 1987 to become a full time figure sculptor. He has sculpted figures for numerous companies including Poste Militaire, Pegaso, Revell/Monogram, Dragon, The Model Cellar and various toy companies. He has received numerous accolades over the years including Best of Shows at MFCA and Euro Militaire, Grand Master (MFCA - Model Figure Collectors of America), Chicago Medallist (MMSI - Military Miniature Society of Illinois) and was voted a charter Master of the World Model Soldier Federation. His interests over the years have been many and varied including stints in music, painting, poetry, photography, hiking, karaoke and UFOlogy (he was a regular columnist for UFO Magazine US for several years!)

You can find many other figures sculpted by Mike at: [www.modelcellar.com](http://www.modelcellar.com)



#### Profile Art by Ronny Bar

Ronny Bar developed a keen interest in airplanes from an early age, living close at the El Palomar Air Force Base in Buenos Aires. He first flew in the back seat of a T-34 Mentor trainer at the age of ten, and was soon drawing airplanes and building models: Spitfires and Messerschmitt first... Camels and Fokkers later.

Visiting the WW1 aircraft collection at Hendon focused his already growing interest for that historic period. His artwork is regularly appearing in journals and publications like Windsock Worldwide, Windsock Datafiles, Cross & Cockade and Over the Front.

Visit Ronny's website at: [www.ronnybarprofiles.com](http://www.ronnybarprofiles.com)



#### 32607 Product Manager, Richard Alexander

A native of Wellington New Zealand, Richard Alexander is an award winning scale modeller with many years of experience in the model and hobby industry. Richard has a long term interest in military history, race cars from motor sports golden era of the '60s, malt scotch and fine cigars.

Richard is an accomplished modeller and has been in the model and hobby industry since 1991 and brings with him a keen eye for detail and a passion for ensuring our models are enjoyable to build. So if there is anything you don't like about this model, you can blame him.

If you have any questions about this model, comments, requests or suggestions, Richard is contactable at [richard@wingnutvings.com](mailto:richard@wingnutvings.com)



#### Figure Painting by John Belcher

John's passion for painting figures started in his early teens with an interest in history, military and otherwise, and he's now been at it for over 40 years. As well as assembling and painting commercially available figures, John sculpts his own figures from scratch. Over the years John has received many awards for his work, these include multiple "best in show" awards at national level in New Zealand and Australia, gold medals nationally and internationally in the USA and in England at the prestigious Euro Militaire.



32607	Sopwith Triplane "Raymond Collishaw"	Qty
0132008A	A parts	1
0132013B	B parts	1
0132008C	C parts	1
0132008D	D parts	1
0132008F	F parts	1
0132607P	Photo-etched metal parts	1
132E0012	E parts Clerget 9b Engine	1
7132607	Instructions	1
9132607	Decals	1
54607	Raymond Collishaw figure a b c d	1

If you have any damaged or missing parts please contact [help@wingnutwings.com](mailto:help@wingnutwings.com) for assistance.



32070 - Sopwith F1 Camel "Br.1"



32066 - Polystowee E2a Late



32073 - Sopwith SE1 Dolphin

Also available from  
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