

WINGNUT WINGS



Following on from their successful Pup, Triplane, Camel and (slightly less successful) Dolphin, Sopwith's next major contribution to British aviation was the 230hp Sopwith 7.F1 Snipe. The prototype Snipe appeared in September 1917 and was designed to be powered by a 110hp to 150hp rotary engine, featured single bay Pup like wings with a cut away center section (similar to the Dolphin) for improved visibility, a Camel style tailplane with unbalanced rudder and a flat sided fuselage. Interestingly 300 production aircraft were apparently erroneously ordered at about the same time as 6 further prototypes (numbers B9962-B9967) were requested in October 1917 (the production order was subsequently cancelled). The 6 prototypes featured many changes from the original design and B9965 (now with longer wingspan 2 bay wings with increased dihedral, a 230hp Bentley BR.2 engine, faired fuselage sides and a revised tailplane with a balanced rudder) was sent to France in March 1918 for further evaluation where additional changes were suggested, including increasing the size of the rudder further. Full scale production was ordered from numerous manufacturers in late March 1918 but it was not until late 1918 that sufficient aircraft were available to fully equip 43 Sqn RAF and 4 Sqn AFC (Australian Flying Corps) in France. Despite its operational use during the First World War being restricted to the final few weeks, the Snipe performed excellently in combat.

In an effort to improve maneuverability further, later production aircraft featured larger, balanced, upper ailerons and had the fin and rudder areas further increased. The Sopwith Snipe continued to serve the RAF post war, against the Bolsheviks in Russia, occupational duties in Germany, in home service and 'policing' duties in Egypt and Iraq. The Snipe was the last rotary engine powered fighter to serve in the RAF and was only completely replaced in 1927 by the radial engine powered Gloster Grebe, Hawker Woodcock and Armstrong Whitworth Siskin. The Snipe saw very limited foreign use with the Brazilian Navy, Canadian Air Force and Soviet Red Air Fleet.

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. Because Sopwith Snipes were manufactured by over half a dozen companies it is quite likely that they were doped with both PC10 and PC12, although it is only the latter that has been noted on original examples of Snipe fabric we have examined; fabric from late production upper ailerons manufactured by Sopwith (closely matching FS30040) and Whitehead? (closely matching FS26120). 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 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 dark chocolate brown. The undersides of the wings, tailplane and sometimes the fuselage were left CDL (Clear Doped Linen). Cowlings, fuselage panels, undercarriage and, remarkably, RAF rigging wires were usually painted 'Service Grey' or with a PC10/12 equivalent. Some aluminium cowls appear to have been left unpainted and given a 'turned' metal finish. The interplane and center section struts and their metal fittings also appear to have been painted grey. Steel components, fittings and brackets were often black although many appear to have been finished in grey. All fabric surfaces exhibited a gloss appearance when new which would lose its shine relatively quickly in service.

Richard Alexander 2012

Wingspan (Early):	Length (Early):	Max Weight:	Max Speed:
30ft (9.14m)	19.16ft (5.84m)	2020lb (916kg)	121mph (195kph)
No. Manufactured:	Production:	Engine:	Ceiling:
2400 (approx)	March 1918 to Sept. 1919	230hp Bentley BR.2	25,000ft (7620m)

Armament:

2x .303 (7.7mm) Vickers machine guns & up to 112lb (50kg) of bombs.

References:









Windsock Datafile 46 Sopwith Snipe, J.M Bruce, 1994 - Osprey Dolphin and Snipe Aces of World War 1, Norman Franks, 2002
1914-18 Aviation Heritage Trust - The Vintage Aviator LTD - Colin Owers - Private Collections

Sopwith Snipe Early

1/32 Scale

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

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

	All colours	Tamiya	Humbrol	Misterkit
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	
g	Dark Wood* - semi gloss	XF68	98	
h	Service grey - matt	XF82	145	BC01
i	Leather - semi gloss	XF52	62	
j	Clear Doped Linen (CDL) - semi gloss	XF55	121	BC05
k	PC12 - semi gloss	XF10	98	BC02
l	PC10 - semi gloss	XF62	155	BC03
m	Black - semi gloss	X18	85	
n	White - semi gloss	XF2	34	BC08
o	Red - semi gloss	XF7	60	
P	Rubber - matt	XF69	66	
q	Silver dope - gloss	XF16(x2) + XF19(x1)	-	
r	Mustard Yellow - semi gloss	XF4	81	AM004
s				
t				
u				
v				
w				
x				
y				
z				

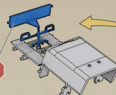
Note: Apply clear varnish to achieve the desired gloss or semi-gloss finish. *See our website hints and tips for painting wood.

1 COCKPIT

g+h A19
Petrol tank & floor boards



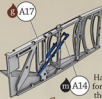
g A36



Rudder bar

A13 m

A6 m



m A14

Hand air pump for pressurizing the petrol tank

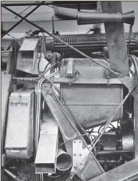
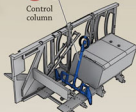


A22 c ? m

Control column



Instrument board detail from an unidentified Sopwith Snipe. Note the Type 5/17 compass (A1), cord wrapped around the control column hand grip (A22), padding on the Vickers gun butts and the style of tachometer (A10). The small box at the bottom right is for electrical switches.



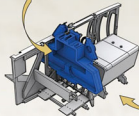
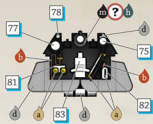
Instrument board

A27 g ? m



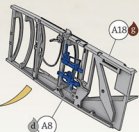
m A9 ? A10 m

Tachometer



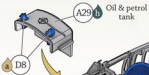
j A25

Pilot's seat

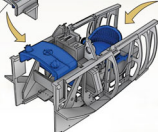


Throttle & petrol tap

Oil & petrol tank, ammunition magazine, chutes for spent disintegrating link & empty shells and air intake detail. Note that many metal brackets and fittings appear to be painted grey and not black.



Oil & petrol tank



A30 i

Leather cushion

ABCDE

j+i P6

j+i P7

Usual wide safety belt

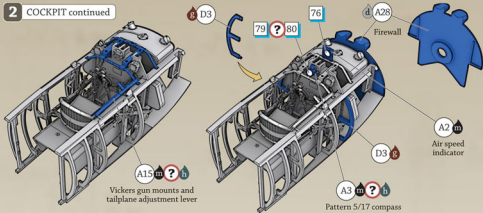
? i

x2

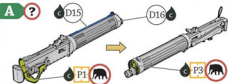
j+a P5

4 point Sutton safety harness possibly fitted in some aircraft

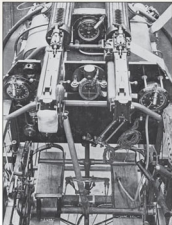
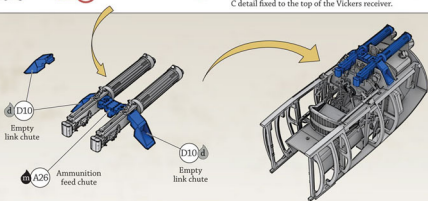
2 COCKPIT continued



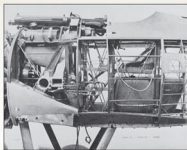
BCDE Vickers Mk.1* guns



Vickers Mk.1* gun fixed to the port mount. The curved bar between the starboard mounts is a temporary 'fixing jig' used during construction. Note the Constantinesco Timing Gear Type C detail fixed to the top of the Vickers receiver.

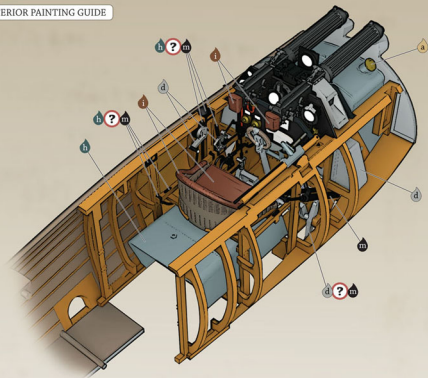


> Note the main petrol tank (A13), cockpit coaming (F2) and wicker pilot's seat (A25). Curiously, much of the internal bracing in the Sopwith Snipe is constructed from RAF wires where their aerodynamic properties are not necessary.



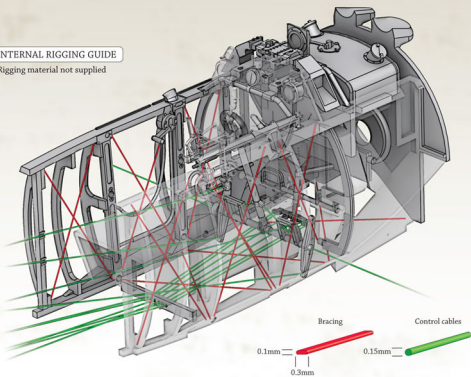
< Vickers Mk.1* guns mounted to an unidentified Sopwith Snipe during assembly. The right gun is missing its padding and Hyland Type 'B' loading handle (P1) and the right heel guard has not been attached to the control column cross shaft (A2). Note the air speed indicator (A2) tachometer (A9), leather foot straps on the rudder bar (A1) and the various wires and cables not yet connected to their various fittings.

INTERIOR PAINTING GUIDE



INTERNAL RIGGING GUIDE

Rigging material not supplied



Sopwith Snipe E8102

Cockpit interior photos of reproduction Sopwith built Snipe E8102 beautifully built by The Vanage Aviator Ltd. All following colour images are of this remarkable aircraft which is now part of Kermit Weeks Fantasy of Flight collection in Florida USA.

< Note the various instruments and Vickers Mk.1" butt padding detail. Compare this image with the photo on page 4.

> Cockpit floor showing unpainted aluminium underfields, ammunition magazine and various rigging and bracing cable details.



Unrest Fibery)



Unrest Fibery)

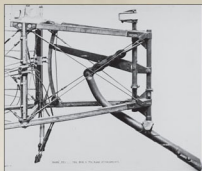
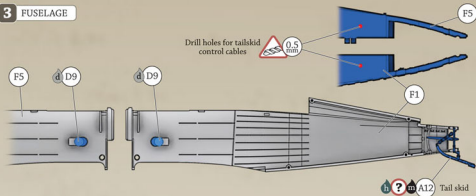


< Left side of the cockpit showing the pilot's wicker seat, petrol pump, throttle and petrol tap (A).

> Right side of the cockpit showing the lever for adjusting the angle of incidence of the tailplane. Although uncommon during the First World War, the 4 point Sutton safety harness (visible here) was widely used post war.



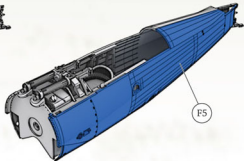
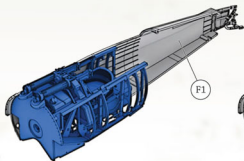
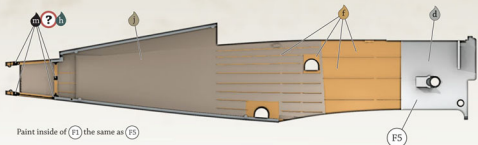
3 FUSELAGE



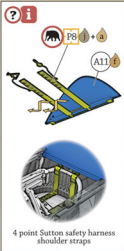
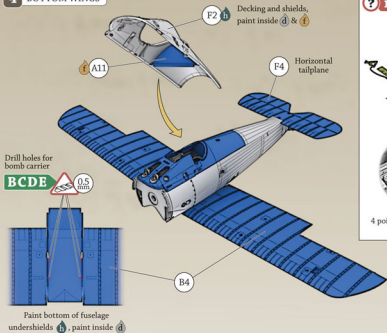
Rear of fuselage frame showing the tube steel tail skid, tightly bundled bungee suspension cord and tailplane adjustment bar (A12). All metal fittings appear to have been painted black (m).



Tailplane and tail skid detail from reproduction Sopwith Snipe E8102.



4 BOTTOM WINGS



Horizontal tailplane and elevator detail from Sopwith built Snipe E8044 as shown on page 25. Note the gap between the top of the horizontal tailplane and bottom of the fin (G1) to allow for the movement of the adjustable tailplane.



Cockpit decking and top shields (F2) from Sopwith built Snipe E8006. Note the chute for the Vickers gun empty link, padding, hand hold and asymmetric nature of the top shields.



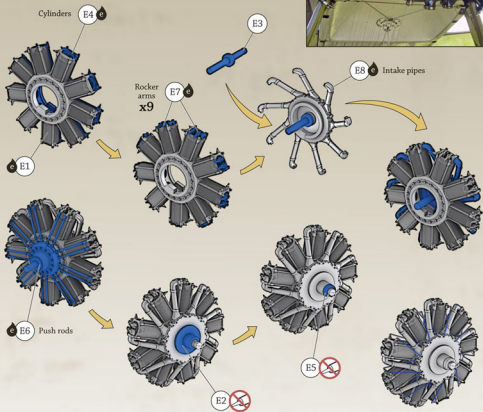
^ Port horizontal tailplane and elevator from E8102 showing rigging details and caster oil exhaust staining.

> Cockpit detail from E8102 showing the wood **f** decking and metal **d** top shields.

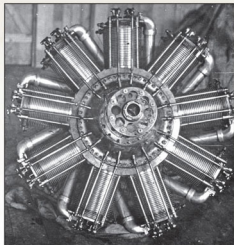
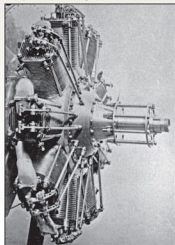


5 230hp BENTLEY BR.2 ENGINE

Kermit Week's genuine Bentley BR.2 engine fitted into E8102. Note the extensive castor oil staining on the undershields.



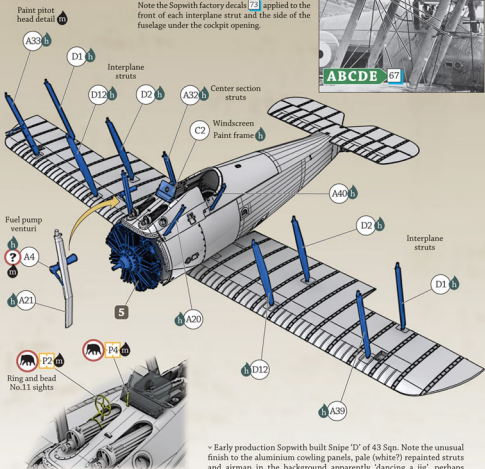
230hp Bentley BR.2 engine.



Wiring guide. Wire not included.

6 STRUTS

> Strut detail from Sopwith built Snipe E7989. The interplane struts and their metal brackets have been overpainted with the same matt grey colour. Note the Sopwith factory decal: 72 applied to the front of each interplane strut and the side of the fuselage under the cockpit opening.

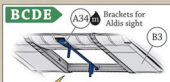
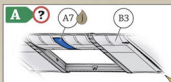
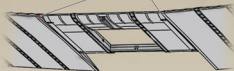


▼ Early production Sopwith built Snipe 'D' of 43 Sqn. Note the unusual finish to the aluminium cowling panels, pale (white?) repainted struts and airman in the background apparently 'dancing a jig', perhaps indicating a post war scene.

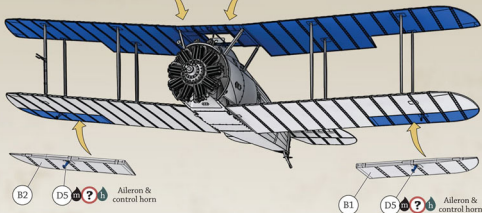


7 TOP WINGS

0.5 mm  Drill rigging holes



^ Center section and strut detail from Sopwith built Snipe E7989. Note the darkly painted center section struts, fuel system venturi **A4**, Brackets For Aldis sight **A34** (without the Aldis sight **A31**), windscreen **C2** and ring sight **P2**.

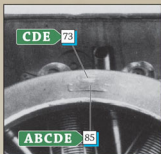


< Top wing center section of E8102 showing padding and Aldis sight details.

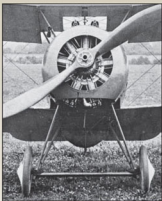
▼ Sopwith Snipe E8027.



8 UNDERCARRIAGE



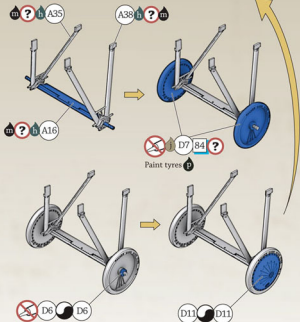
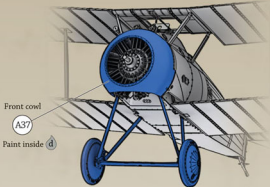
Gun timing warning **85** and Sopwith factory decal **73** applied to the cowling of late production Sopwith built Snipe E8263 of 4 Sqn AFC.



Undercarriage detail from a Sopwith Snipe thought to be Sopwith built E7989. Note the dark bungee suspension cord and how subtle the traditional Sopwith split axle angle is on the Snipe compared to earlier designs like the Triplane and Pup (see Wingnut Wings models 32008, 32013 and 32016). Almost all Sopwith Snipe propeller blades were wrapped in linen and painted grey.

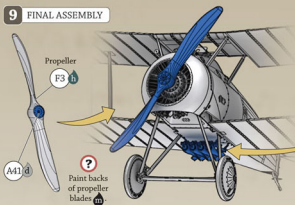


Undercarriage detail from E8102 showing the split axle, bungee suspension cord and extensive caster oil staining.



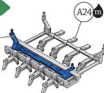
Fuselage detail from E8102 showing aluminium undershield panels (usually painted service grey), elevator control horn clearance slots and, once again, extensive caster oil staining.

9 FINAL ASSEMBLY



BCDE

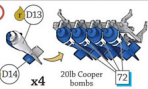
m A23
Bomb carrier



? r D13

r D14 x4

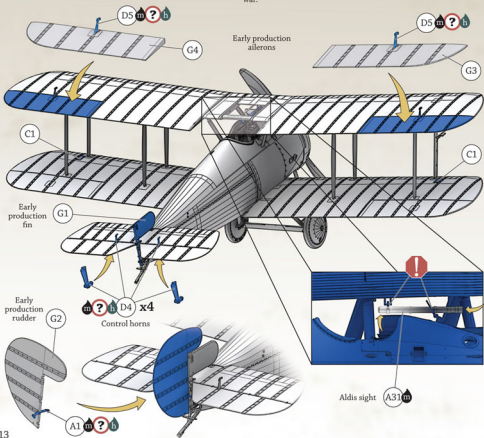
20lb Cooper bombs 72

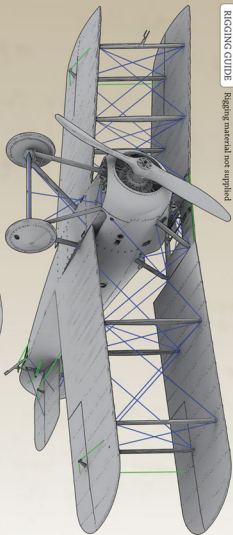


Early production aileron detail from Sopwith built Snipe E8044.



20lb Cooper bombs carried by Snipes during the last few weeks of the war.





Control cables

0.15mm

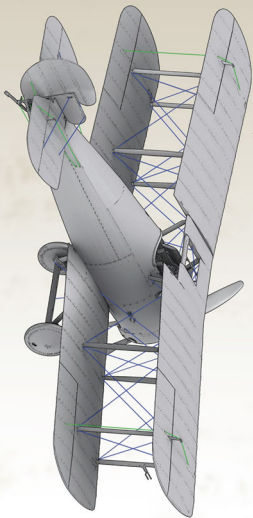


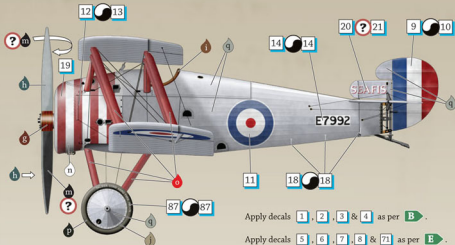
RAFe Aerodynamic wires

0.1mm



0.3mm



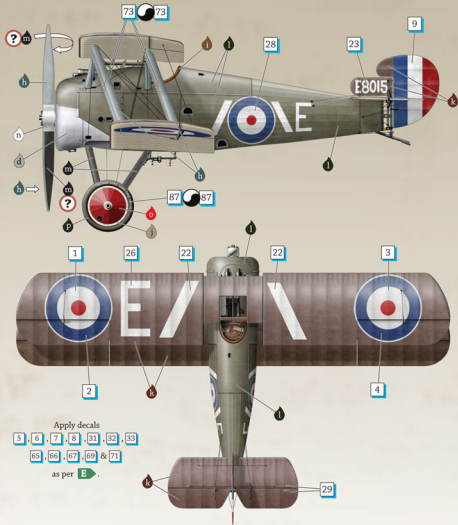
A Sopwith Snipe E7992, South Eastern Area Flying Instructors School, 1918-19

Sopwith built Snipe E7992 is from the 2nd production batch of 300 aircraft ordered from Sopwith in March 1918 (numbers E7987 to E8286). By the time this photo was taken it was in service at the South Eastern Area Flying Instructors School and features a rather fetching colour scheme of an overall pale (silver?) dope with dark (red?) struts and cowlings bands. Another SEAFIS Snipe, E7991, had its fuselage overpainted in a dark (red?) colour and featured the same cowlings bands as E7992. Neither E7992 or E7991 appear to have been armed at the time they were photographed.



4 Sqn AFC Sopwith Snipes photographed at Bickendorf following the armistice. Identifiable aircraft are Sopwith built Snipes E8103 "S", E8146 "I" and F2351.

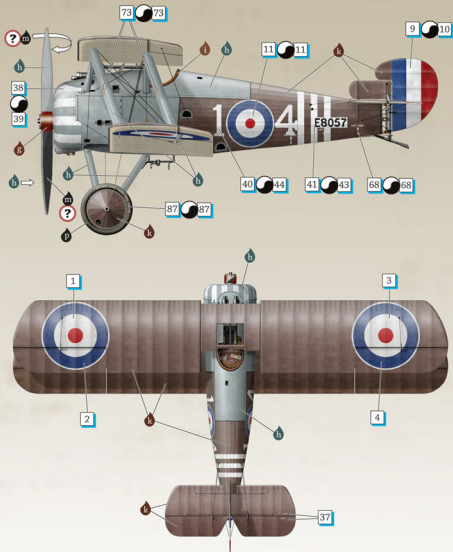
B Sopwith Snipe E8015 "E", E Mulcair, A Flight 43 Sqn, October–November 1918 (27 victories)



Edward Mulcair poses in front of his 43 Sqn Sopwith built Snipe E8015 during 1919. The 1st unit to be fully equipped with Snipes in late August 1918, 43 Sqn took them into action in late September but by the time this photograph was taken post war, they had begun to receive late production Snipes with extended allerons (see Wingnut Wings model 32054). The fuselage has been re-doped in a colour which appears lighter than the factory finish (still visible on the rudder and fin, which has had the serial number repainted on it) indicating that E8015 has had its fuselage fabric repaired or replaced in service. The decking, fairings, shields and front cowl have been overpainted in a dark colour similar to the fuselage with much of the paint stripped off the bottom of the front cowl and side shields. A storage locker has been installed in the side of the cockpit coaming just behind Mulcair. It is possible that the fuselage was re-doped before the armistice but the storage locker is thought to be a post war modification. Edward was 22 years old when he claimed 2 victories while flying E8015 during the last weeks of October 1918.



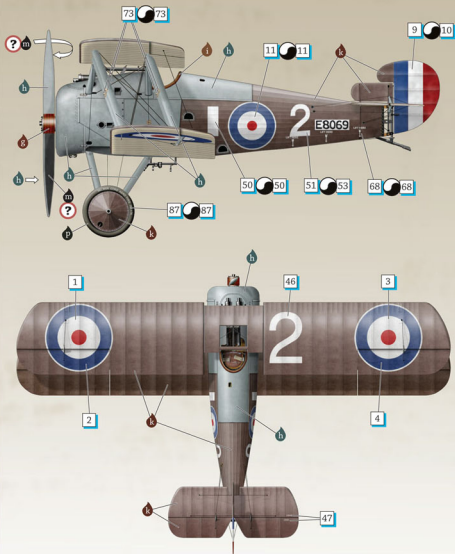
C Sopwith Snipe E8057 "1 - 4", B flight 70 Sqn, 1919



Apply decals [5], [6], [7], [8], [36], [42], [45], [64], [65], [66], [67], [69] & [71] as per **E**.

Sopwith built Snipe E8057 "1 - 4" features the 3 white fuselage bands worn by 70 Sqn aircraft since 22 March 1918 and a white striped engine cowling seen on numerous 70 Sqn Snipes during occupation duties. 70 squadron operated Sopwith Camels up until the Armistice and inherited their Snipes when they replaced 4 Sqn AFC on occupation duties in February 1919. All fuselage stenciling is still evident indicating E8057 wears its Sopwith factory finish and the plywood and metal panels appear to be grey.

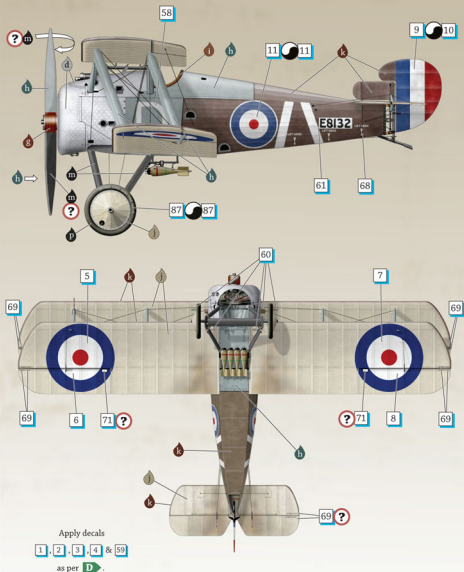
D Sopwith Snipe E8069 "2", TCR Baker, B Flight 4 Sqn AFC, October 1918 (12 victories)



Apply decals **5**, **6**, **7**, **8**, **48**, **49**, **52**, **54**, **65**, **66**, **67**, **69** & **71** as per **E**.

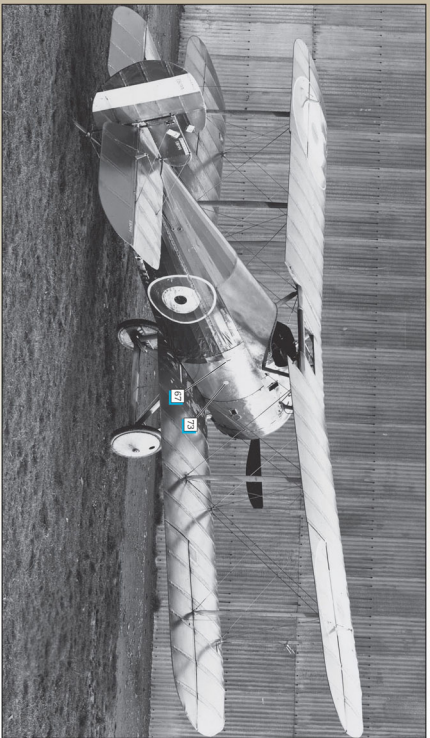
Sopwith built Snipe E8069 features a factory applied PC12 finish with the markings of B Flight 4 Sqn AFC (Australian Flying Corps). The fuselage plywood and aluminium panels appear to have been painted grey. 12 victory ace Thomas Charles Richmond Baker was flying E8069 when he was awarded his 7th victory, an OOC (Out Of Control) Fokker D.VII on 26 October 1918 and he would score all his remaining victories in other 4 Sqn Snipes. Baker was born in South Australia and was a bank clerk when war broke out. He enlisted in July 1915 and served in the Artillery before transferring to the AFC in September 1917. He flew Sopwith Camels with 4 Squadron from June 1918 and was awarded his 1st victory on 31 July. He had brought his tally up to a total of 12 victories before he was shot down and killed on 4 November 1918 following combat with a large number of Fokker D.VII. Thomas was 21 and the war lasted for only 6 more days.

E Sopwith Snipe E8132 "D", A flight 208 Sqn, November 1918

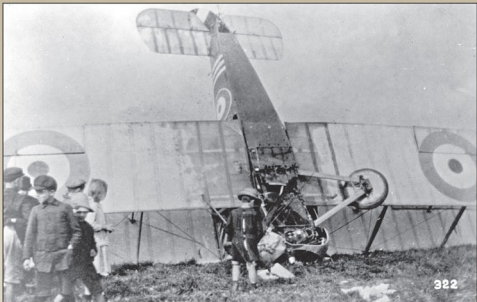


Sopwith built Snipe E8132 "D" of 208 Sqn conveniently displays much of its numerous stenciling and inspection marks, although it is missing the Sopwith factory decals **73** commonly applied to the struts and side of the fuselage. The aluminium cowls and shields feature a turned finish. E8132 was delivered to 208 Sqn at Maretz on 3 November and marked with the 'angled bar' squadron markings and individual identification letter D of A flight as shown here. It is not certain if E8132 saw any action in the last few days of the Great War but it was still on Squadron strength in April 1919 when it was written off following a crash which injured the pilot CR Davidson (possibly 6 victory ace Charles Robert Davidson, formally of 14 and 111 Sqn).





Sopwith built biplane E8044 was from an order placed in March 1918 for 300 aircraft (numbers E7987 to E8286). Despite the order being placed in March 1918 the final aircraft were not delivered until well into 1919. Note the various tonal differences between the painted wooden struts, cockpit canopy and side panel compared with the cowlings and doped fabric. While the various rib tapes may appear to be a darker or lighter colour than the underlying fabric this is not true. In this case the effect is caused by their frayed edges reflecting light differently from the underlying glass fabric. We recommend using differing matt and gloss varnishes to reproduce this phenomenon and allowing reflected light to emphasize the rib tapes, just like reality. In some cases this difference is even more noticeable due to dirt and oil staining catching on the frayed edges which would warrant being painted a slightly different colour.



This post war crash of an unidentified 70 Sqn Sopwith Snipe allows us to see the highly caustic oil stained fuselage and wings. Much of what we see as caustic oil weathering has actually soaked through from the inside of the fabric staining it darker or making it more transparent depending on the original finish. The number of children present, no doubt in their brightly coloured clothing, make a scene like this an interesting diorama subject for the adventurous modeller.



3-D Modelling by Darren Mildenhall

Born and raised in Wellington, New Zealand, Darren harnessed his creativity by attending the School of Design, graduating with a major in Industrial design. During the degree he developed a passion for form and the aesthetic appeal of a product and how to utilise CAD software to realise and develop a concept. Joining Wingsnut Wings as a 3D modeller has furthered his skill in these areas through the creation and manipulation of complex 3D forms.

When not designing WW1 model aircraft, Darren enjoys graphic based art and t-shirt design, a lot of which is influenced by his interest in pop culture, typography and the retro 1950s.

Outside all that, Darren is a self confessed movie buff and sports fan.



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. He became a successful bass player with a career lasting over 35 years in several Rock bands, recording ten albums (one of them being a National hit selling more than 100,000 copies) and performing countless concerts, TV shows and tours all over Argentina.

Now retired from the R'n'R scene, his interest returned to his early passion: Aviation Artwork. 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



Box Art by Steve Anderson

Steve Anderson is an avid historian of military aviation, with a special interest in the many beautiful biplanes and triplanes of World War I. The aircraft and battles of famous World War I aces such as Baron Manfred von Richthofen (better known as the "Red Baron"), James McCudden, Raoul Lufbery, Ernst Udet, Werner Voss, and other pioneers of dogfighting are among Steve's favorite subjects.

An Artist Fellow of the American Society of Aviation Artists, Steve creates works that reflect scrupulous attention to historically accurate detail, from the colorful markings on the fuselages to the time of day of an actual battle.

Visit Steve's website at: www.anderson-art.com.



Project Co-ordinator, Richard Alexander

A native of Wellington New Zealand, Richard Alexander has a long term interest in military history, race cars & local drivers from motor sports golden era of the '60's. Other interests include mountain biking, scotch and cigars.

An accomplished modeller Richard's models have twice been awarded Best Overall in Show at IPMS(NZ) National Conventions and earned him the inaugural TamiyaCon(NZ) Master Modeller award (along with the associated trip to Japan) in 2001. Many of his works are in private collections around the world, though he no longer accepts commissions.

Richard 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 do have comments, requests or suggestions, Richard is contactable at richard@wingsnutwings.com



32020	1/32 Sopwith Snipe Early	Qty
0132020A	A parts	1
0132020B	B parts	1
0132020C	C parts	1
0132020D	D parts	2
0132020F	F parts	1
0132020G	G Parts	1
0132020P	Photo-etched metal parts	1
132E0017	BR.2 Engine	1
7132020	Instructions	1
9132020	Decals	1

If you have any damaged or missing parts please contact help@wingnutwings.com for assistance.



32013 - 1/32 Sopwith Pup RFC



32031 - 1/32 Fokker D.VII F



32008 - 1/32 Sopwith Triplane

Also available from
www.wingnutwings.com

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