

FINESSING A FIGHTING FOKKER

Detailing Wingnut Wings' 1:32 D.VII (Early) as a Jagdstaffel 19 aircraft in October 1918

By Bob Steinbrunn

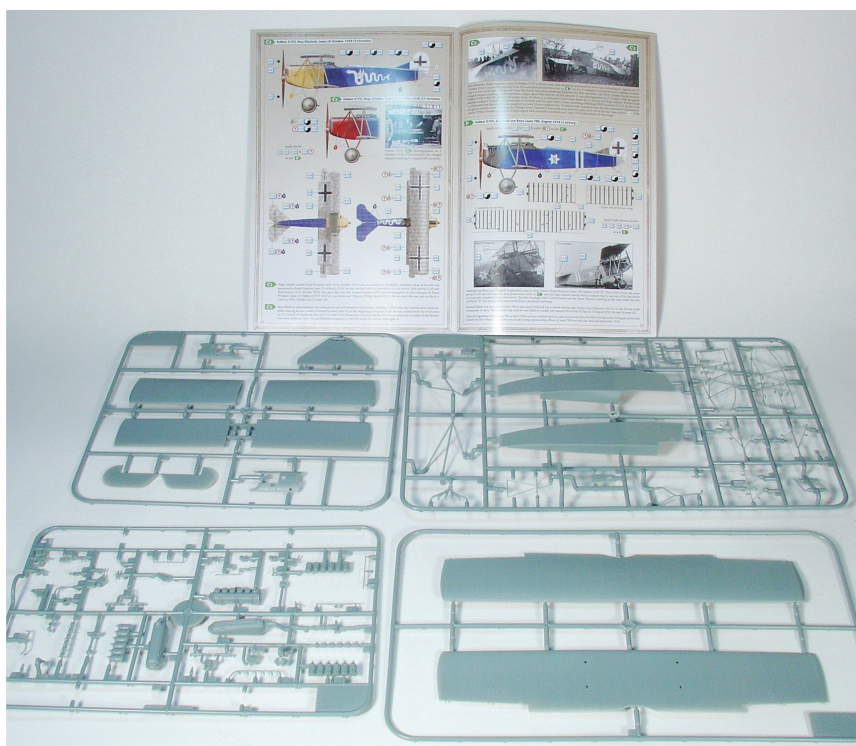


The aircraft I built was believed to be flown by Leutnant Max Kliefloth (3 victoires) of Jagdstaffel (Jasta) 19, based at Stenay aerodrome, France, October 1918.

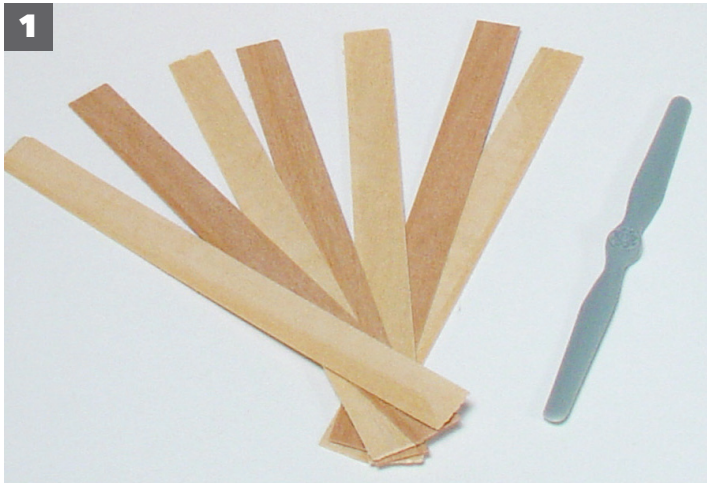
The Fokker D.VII was widely acknowledged to be the finest fighter of World War I, and although it arrived late in the war, it made its mark immediately. This very maneuverable aircraft was highly respected by friend and foe alike. Due to its thick airfoil and cantilevered wing, the aircraft was very maneuverable, and fully controllable at high angles of attack; a maneuver often called "hanging on its prop". Because it was in such high demand, Fokker was unable to build them fast enough and it was built by three different manufacturers (Fokker, Albatros, OAW). Truly, it was an aviation classic.

This was Wingnut Wings kit number 32067 and is one of several variants released. This kit represents a Fokker D.VII (Early), and the kit includes many extra parts for various versions. The modeler must do their research and choose one. As is usual with WNW, the instruction booklet of 26 pages is without peer and includes color schemes for five different airplanes. This model is my 13th WNW build and took me 75 hours spread over about a month and a half to complete and encompasses 426 pieces. This one was perhaps somewhat finicky due to the fit of the engine cowlings and panels, which required some fettling, but all came out smoothly in the end.

The box art presents a dramatic painting by Steve Anderson of an early D.VII. The kit provides the basic parts on eight gray sprues, a clear sprue, and a brass photoetch fret. Four more spures are included that carry extra parts for the various variants built by the different manufacturers. The 28-page instruction booklet is a comprehensive and colorful guide to the five schemes illustrated inside.



Four large decal sheets are included in the kit. Printed by Cartograf in Italy, they're first-class. Each image is a separate decal with no clear film. As a caveat: the Cartograf colors of the lozenge camouflage are viewed with suspicion by some knowledgeable sources.



1 I like to start each WNW kit by making my own laminated wood propellers. I start by cutting strips of American cherry (dark) and basswood (light) on my Preac Micro Precision table saw. This saw is no longer made, but there are several other similar saws available on the market. The strips are cut to a width larger than the propeller by about 1/8-inch. Then they are cut to a thickness of about .020". Failing possession



of a small table saw, you can usually find thin strips of wood at a hobby shop, online, or at a woodworker's store in suitable thicknesses and widths. **2** Marquetry suppliers are another good choice. One face of each strip is darkened with a dark brown Prismacolor artist's pencil, which will create a dark line separating each wood piece on the finished prop, adding definition and making the laminations on the finished prop more prominent. The strips are glued up into a



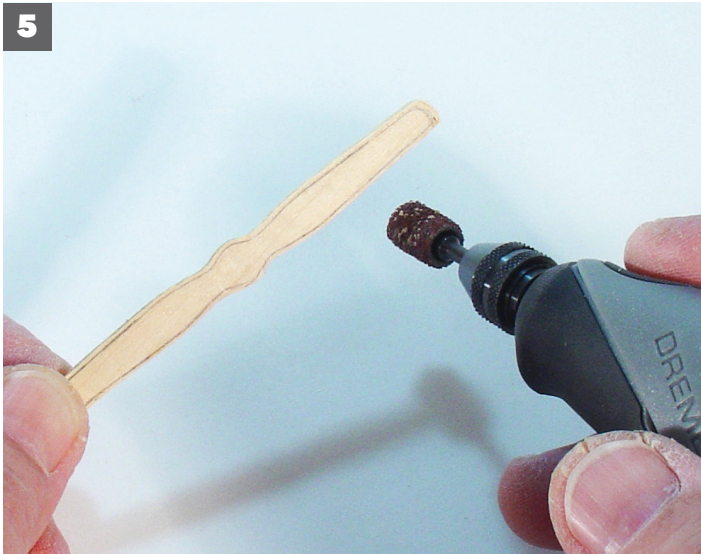
block using Titebond wood glue, an aliphatic resin that dries hard and can be sanded, drilled, and filed to a feather edge, unlike rubbery white glue which is a polyvinyl acetate. The glue is spread with an old paint brush, then thoroughly clamped.



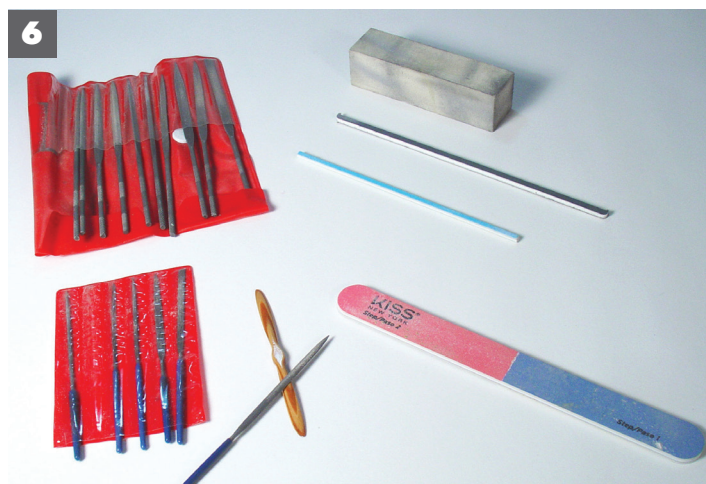
3 After about 10 minutes to allow the glue to set slightly, the clamps were released, the block checked for straightness, all four sides of the block were flooded with CA glue, and the block was re-clamped.

4 Once dry, the rectangular block of wood was rough sanded on all sides to remove the glue and create a flat plane for shaping. The kit prop was placed on the block, held securely, and a draftsman's pencil was used to trace its outline onto the wood, taking care to keep the pencil led perpendicular to the propeller edges. This ensures an accurate outline for shaping.



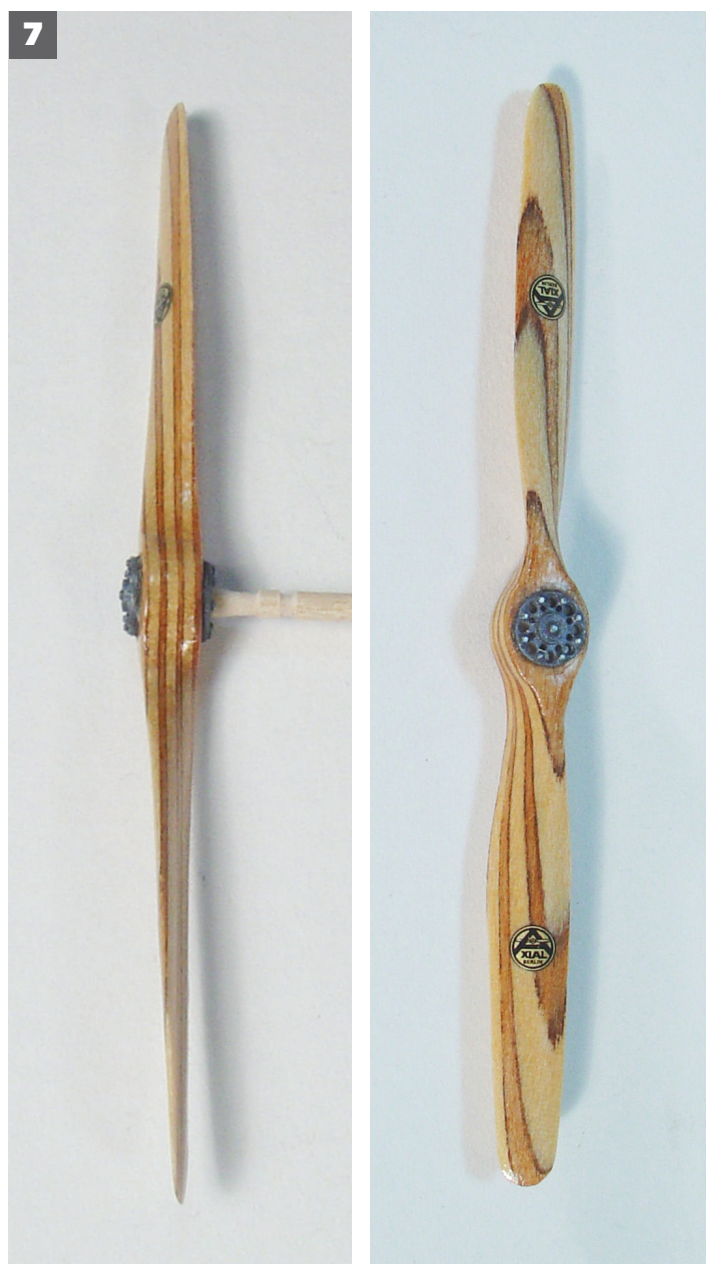


5 A motor tool - in this case, a Dremel Stylo - and a sanding drum were used to bring the outline of the propeller close to the pencil lines, but not touching them. From here on it was handwork with files and sanding sticks. Playing music during this process, which requires patience, will help pass the time.

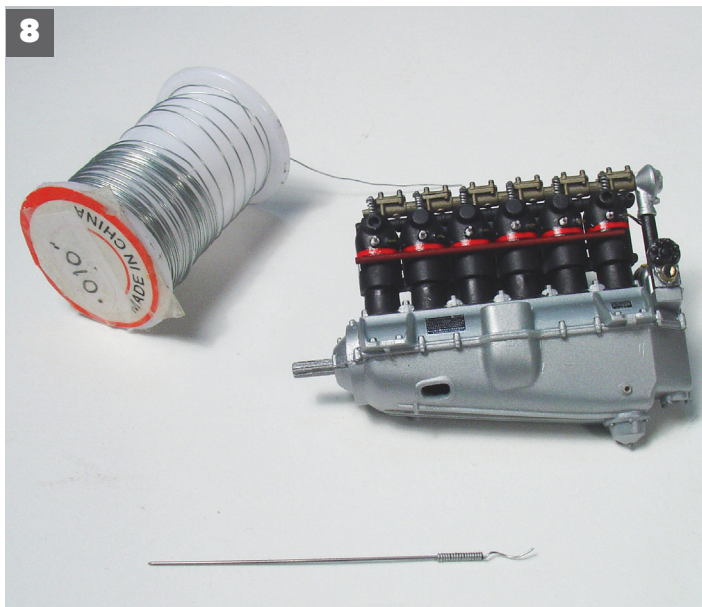


6 A variety of sanding sticks and files - large and small - were used to shape the propeller: no carving with knives here. It was important to ensure the blades remained symmetrical and carried the same shape while the filing and sanding continued. Progressively finer grits were used to eliminate any file marks or roughness. Having separate lamination colors in the propeller promotes realism and is also beneficial since it aids in the shaping: each blade should show the same shape and amount of colored lamination. If so, then you know you're working accurately.

7 Once I was satisfied with the shape, the finished received two coats of urethane varnish. The first coat was buffed out with a fingernail buffing sponge block and allowed it to harden for one day. The Axial decals were added. The front hub or thrust plate was carefully sawed off the kit propeller with a steel photoetched micro saw blade held in a hobby knife. The hub was filed and sanded to clean up the circular shape, then sanded to a scale thickness. The 16 lightening holes were drilled out before the hub was mounted. The rear hub was thinned from the kit part and added in the same manner. Now I had something to be proud of that was made with my own hands and skills.



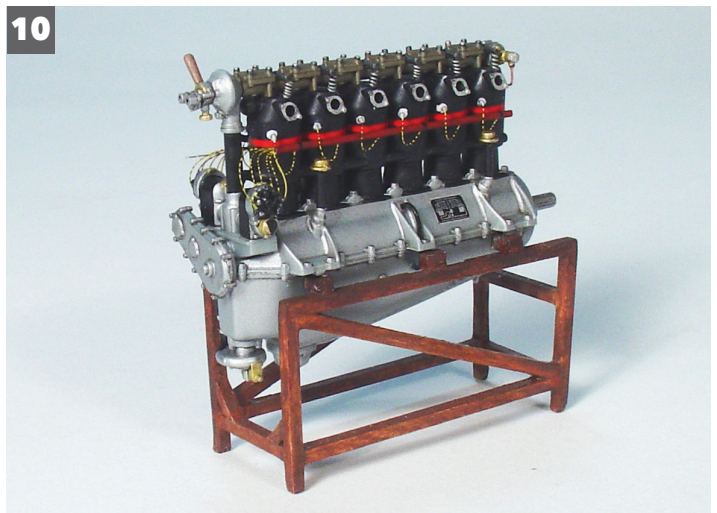
The engine in the kit is very nice, but a little detail makes it even better. The engine air intakes on both sides of the crankcase were drilled out and carved to shape. Wingnut Wings has molded these as a depression on all of its Mercedes engines and for more realism both sides should be opened. The engine air entered the crankcase through these, went through several passages, then was directed up into the carburetor, the mount for which appears as a bulge on the side in the middle of the crankcase. The solid valve springs molded on the cylinder halves were cut off and replaced with metal springs made of very malleable .010 diameter beading wire.



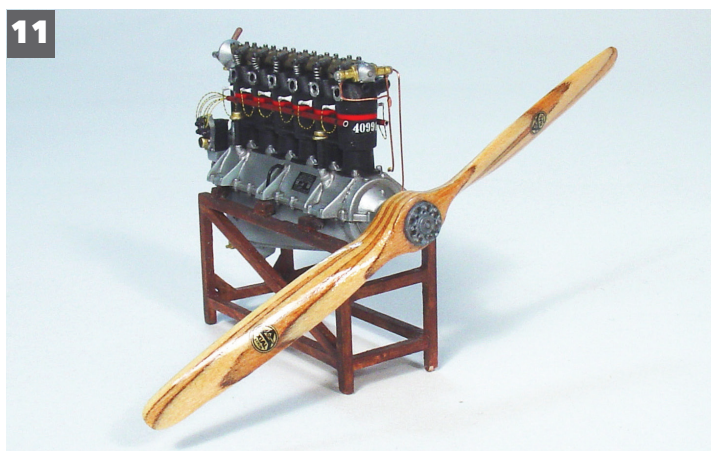
8 The wire was wound around a .015 steel wire mandrel, the loose coils tightened every 10 turns, and sections were cut off and white-glued in place. These are much more realistic. The six-cylinder priming cups were made from .012 brass rod, bent, and inserted into drilled holes indicated by a small molded disc on the left sides of the cylinders. Their handles were built up with white glue and painted black. Last, spark plugs were fashioned from .012 brass rod, inserted into the holes in the cylinders provided by WNW, and their bases were built up with white glue. When dry, the spark plugs were painted with aluminum bases and white insulator sections.



9-11 The completed engine had copper AC wire air pressure lines running from the air pump on the top front of the engine down to the crankcase, and a throttle linkage made from

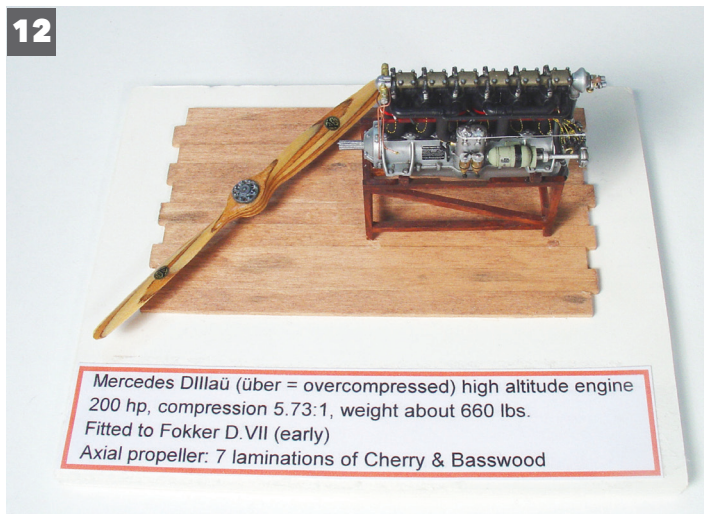


photoetched extra bits. Spark plug wires were threaded into .013" holes drilled into the magneto terminals on one end and into the ignition harness tube which I made of Albion Alloys aluminum tubing on the other. This was drilled out to accept the wires running from the tube to the



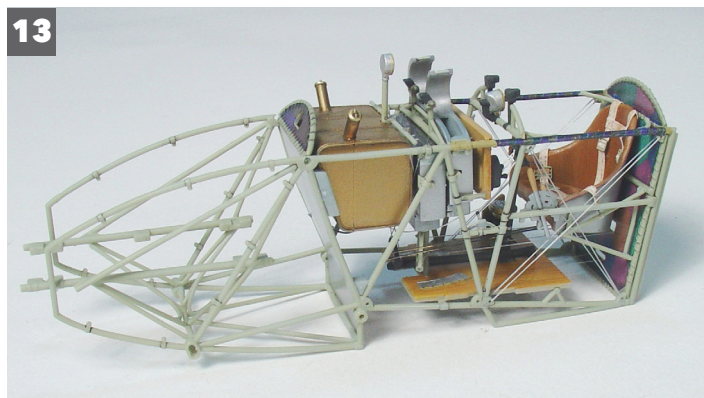
individual spark plugs. The wires were made from .003 clear nylon sewing thread painted yellow with black striping. In the front of the engine, I ran air lines from the air pump down to the crankcase.

12



12 You may well wonder why I go to all this trouble detailing the engine when most of it will be covered up by the fuselage. One reason is that I really enjoy building engines. Another is that these kits are not inexpensive, and I want to maximize my money's worth by building everything in the box. It could even be argued that during the pandemic, what better way was there to spend one's time. Last, I guess... just because!

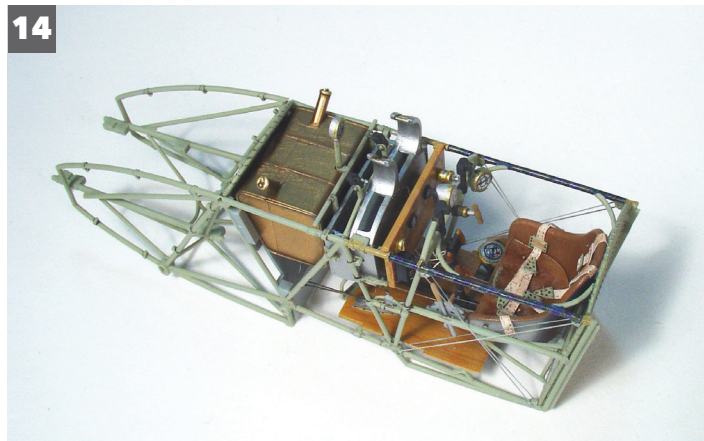
13



13-15 The whole cockpit framework after assembly proved to be challenging, yet interesting. The seatbelts and shoulder harness were HGW micro cloth extras left over from a previous project, and the buckles were leftover photoetched parts. White EZ Line colored with a metallic silver Sharpie permanent marker was

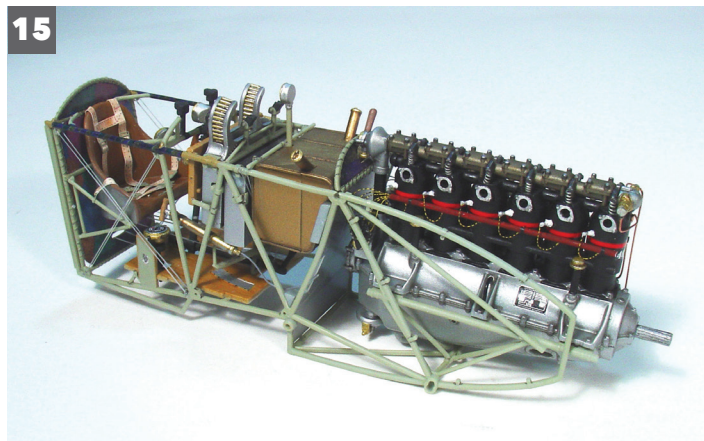
used for the bracing on the framework (doubled as per real Fokker aircraft). EZ Line colored silver was also used for the control cables for the ailerons, rudder, and elevator. The instruction booklet does not specifically tell you to assemble the forward firewall, fuel tank, fuel gauge, ammunition belt container, and ammunition box together as a unit before installing them into the framework, but it's all intended to fit together like a puzzle before installation. It will make you crazy if you attempt to install these items separately. Don't ask how I know.

14



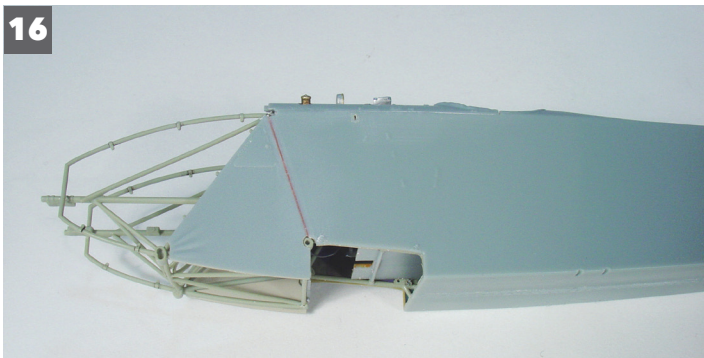
The floorboard and instrument panel were air-brushed Tamiya desert yellow XF-59, and when dry raw sienna oil paint provided a thin overcoat, then burnt umber oil paint was very lightly blended in to give these parts a wood grain look. All the instruments were given a clear gloss coat after applying the decals to represent glass. The leather coaming was brush-painted Tamiya desert yellow XF-59, and when dry was given a coat of raw sienna oil paint with some burnt umber blended in.

15



The instruction booklet has you install the engine in its bearers before cementing the whole unit into the fuselage halves, but I think it's better to wait since the engine can be installed later. This protects it from damage while the fuselage seams are dealt with. This saved the engine from sanding dust, paint overspray, and possible damage while the fuselage was being worked on.

16



16 The kit provides several fuselage panels that fit over the rear half of the engine bay, just forward of the lower wing cutout. The aircraft I chose to model had a fabric rather than a metal cover, and this is given in the kit as a separate part. The seam where it joins the fabric on the fuselage aft of this, however, must be filled to give the impression of continuous fabric without a seam. This was accomplished by laying a length of .010 styrene rod in the gap and filling the seam with CA glue, sanding it out when dry.

17



17 In preparation for the final color scheme of blue lightly sprayed over the factory lozenge camouflage, it was necessary to first apply the lozenge camouflage and Balkenkreuz decals. The camouflage came from a Wingnut Wings accessory decal sheet of four-color camouflage (30021), while the iron cross was supplied in the kit. These were faintly visible under the blue after it was airbrushed.

18



18 The undersurface camouflage came from another Wingnut Wings four-color lozenge decal sheet (30022). The rib tapes are printed on the lozenge camouflage rather than being separate decals as on some Wingnut Wings kits. The fuselage decals were then sealed with Testors Dullcote applied with an airbrush.

19



19 The kit decals for this color scheme were applied over a gloss white basecoat and required the use of Micro Set and Micro Sol several times to make them conform to all the underneath details. Some air bubbles needed to be poked with a sharp blade and more setting solution applied to eliminate them. The wingtips are compound curves, and several slits were made in the decals to make them conform to the tips. The national insignia (Balkenkreuz) were applied in a similar manner and, when dry, the wings were airbrushed with Testors Dullcote. A light mist of Tamiya desert yellow XF-59 was airbrushed on the lower wing where the wheels threw up mud.

20



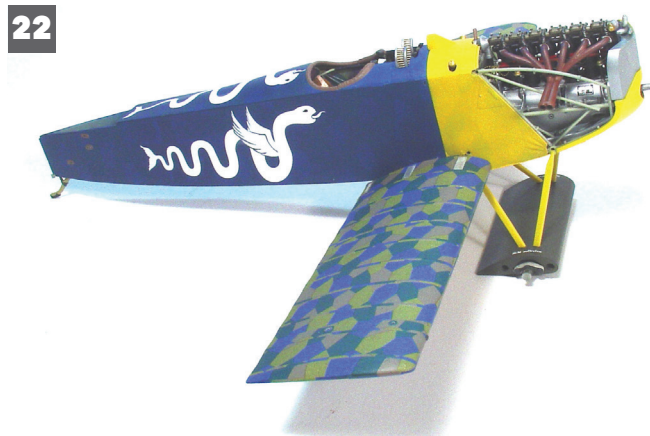
20 The yellow nose was airbrushed after first

carefully masking off where the blue would be painted later. Tamiya masking tape was used and was applied to a cloth several times to reduce the adhesion of the tape since it's all too easy to lift off the decal's underneath. When dry, the yellow was masked off and the blue was lightly airbrushed over the decal's underneath. Done lightly, the Balkenkreuz and lozenge camouflage should be faintly visible. The fabric portion of the yellow nose also shows the lozenge camouflage faintly beneath the paint, making it a bit darker than the metal cowling and engine panels. When dry, the flying serpent decals were applied, and everything was again airbrushed with Testors Dullcote.



21 To replicate how Fokker actually painted the wheels, they were first airbrushed Tamiya dark yellow XF-60. Then oil paint was mixed using chromium oxide (green) and burnt umber, and the brush was lightly held against the outside portion of the wheel while it was rotated. As the paint on the brush lessened the brush was moved towards the center during rotation, which produced a lighter, more transparent color. When dry, circular masks were placed to cover the painted wheels, and the tires were airbrushed Tamiya sky gray XF-19. The masks were removed and Tamiya desert yellow XF-59 was lightly airbrushed over the wheels and tires to muddy them up a bit. The kit supplies decals if you don't wish to go to this amount of trouble, but I think the oil paint technique appears more realistic. Once the aircraft was up on its undercarriage, the tail skid was installed. The bungee shock cords at the ends of the axle wing were painted Tamiya deck tan XF-55 and, when dry,

were given a light coat of Mig Productions dark wash to pop out the detail of the individual cords.



22 The wheels were added, along with the four engine panels. The small gaps between the panels were filled with brushed-on white glue, then painted when dry. The lozenge camouflage under the yellow fabric aft of the engine panels has a realistic darker tone due to the lozenge pattern, while the metal engine panels appear somewhat brighter. The nicely detailed engine was now lost from view, but I had fun building it! Mig Productions dark wash was used around the cowling fasteners and access panels to accentuate the detail. It was also used lightly to indicate oil mist streaming aft from the louvers and panels. After applying it and before it dried, it was feathered out to make it fainter and more indistinct.



23 The cabane struts were added and cemented with CA glue using the top wing set in place on them as a temporary template until the glue set up.

White EZ Line colored with a silver metallic Sharpie permanent marker was used for all the bracing wires and control cables. The turnbuckles are Gaspach metal ones cut down a bit since they originally appeared oversized for 1:32 scale.

The control surfaces were attached in a deflected position for a more animated look. On the real aircraft these positions would cause a left descending turn.



24 This left side profile shows the blue paint barely covering the original lozenge camouflage and Balkenkreuz. The fabric portion of the yellow nose also shows the lozenge camouflage faintly beneath the paint, making it a bit darker than the metal cowling and engine panels.



25 Mig Productions Dark Wash was used for the oil streaks emanating from the louvers and engine panels. After applying it a large brush was used to feather these out and make them appear less prominent.



26 This head-on view shows the laminated propeller to good effect. Seven laminations of American cherry and basswood were used, topped off by two coats of urethane varnish.



27 The wood propeller is a thing of beauty and appears more realistic than paint. White EZ Line colored with a Silver Metallic Sharpie permanent marker was used for all the bracing wires and control cables. The turnbuckles are Gaspach metal ones cut down a bit since they originally appeared oversize for 1/32 scale.

28 This right rear view shows the lozenge camouflage and Balkenkreuz on the fuselage appearing dimly beneath the blue paint. The



control surfaces have been attached in a deflected position for a more animated look. On the real aircraft these positions would cause a left descending turn.



29 This overhead view shows the lozenge camouflage showing faintly beneath the blue paint on the tailplane and elevators.



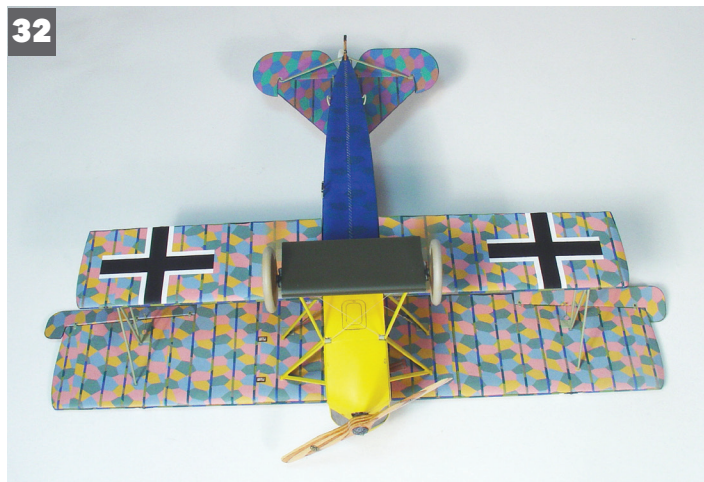
30 A close-up view of the cockpit illustrating the seat belts and shoulder harness, instruments, rear view mirror on the upper wing trailing edge, and the lozenge fabric sidewalls. The leather coaming was brush-painted Tamiya Desert Yellow XF-59, and when dry was given a coat of raw sienna oil paint with some burnt umber blended in.

31 This left rear view shows an attractive and colorful aeroplane of high visibility. Intended

to make it easy for staffel mates to identify the aircraft, it makes no pretense at camouflage.



32 An underside view of the lower surface colors. The rib tapes are printed on the lozenge camouflage rather than being separate decals as on some Wingnut Wings kits.



Bob Steinbrunn has been a member of IPMS/USA since 1969 and has written a number of articles for the Journal and other publications. Bob was an Army combat helicopter pilot in Vietnam and stayed in aviation for the rest of his career, the last 26 of which he flew civilian EMS helicopters for hospitals. Bob is married to Barbara, a general surgeon, and he laughs that he is under constant medical supervision 24/7.