



# VERLINDEN PUBLICATIONS

Modeling, Detailing, Painting, Weathering

## WWII AIRCRAFT VOL.III

...and building Dioramas.

Illustrated with over 100 full color Photographs.



N°1768



# WWII AIRCRAFT Vol.III

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Verlinden Publications





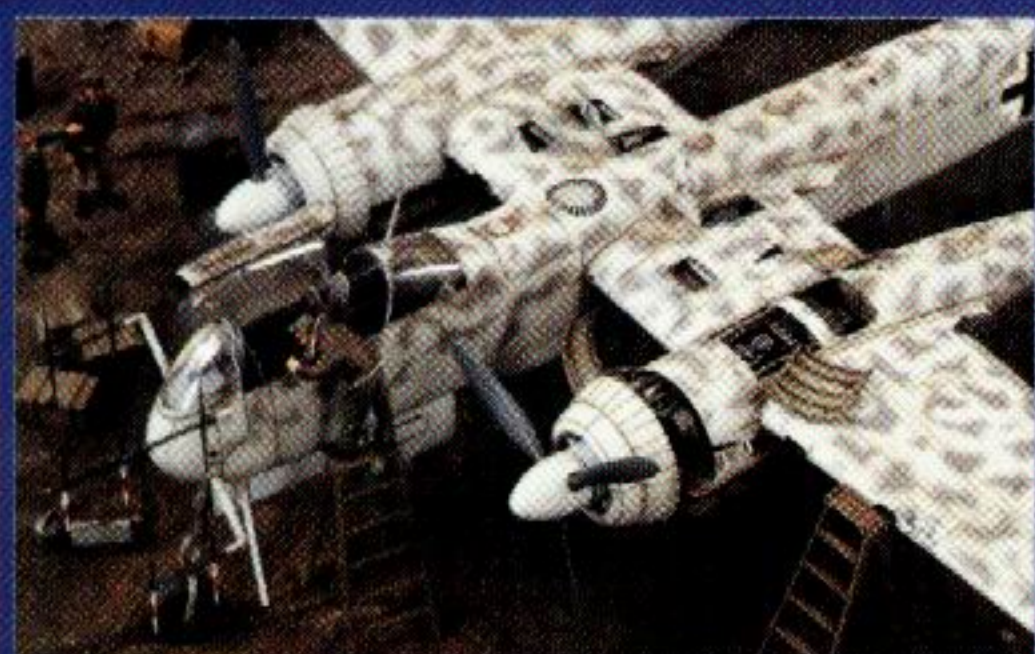
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# WWII AIRCRAFT

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N°1351

Our Volume I in this Series

A full 48 pages illustrated with 125 color photographs.  
Covering the following subjects :

- ME-109G2
- P-51 Mustang
- UHU WWII Luftwaffe Nightfighter
- Ditch, a diorama with an Avenger
- FW-190 D9, set in a workshop environment
- Pacific Rescue, featuring a PBY-5A Catalina

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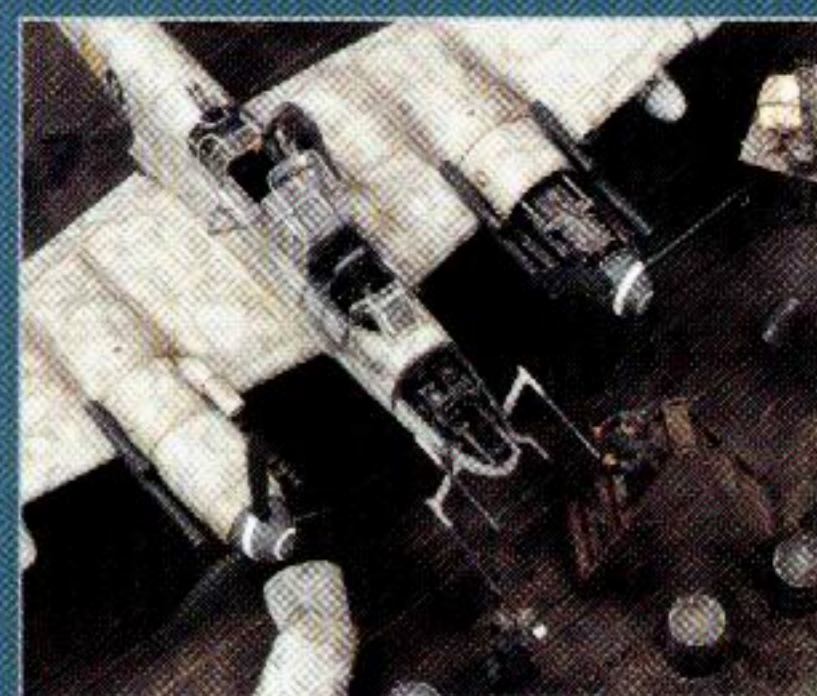


**VERLINDEN PUBLICATIONS**

Modeling, Detailing, Painting, Weathering

# WWII AIRCRAFT VOL.II

...and building Dioramas.  
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N°1446

Volume II of our WWII Aircraft Modeling series followed close  
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illustrated with over 100 full color photographs covering the  
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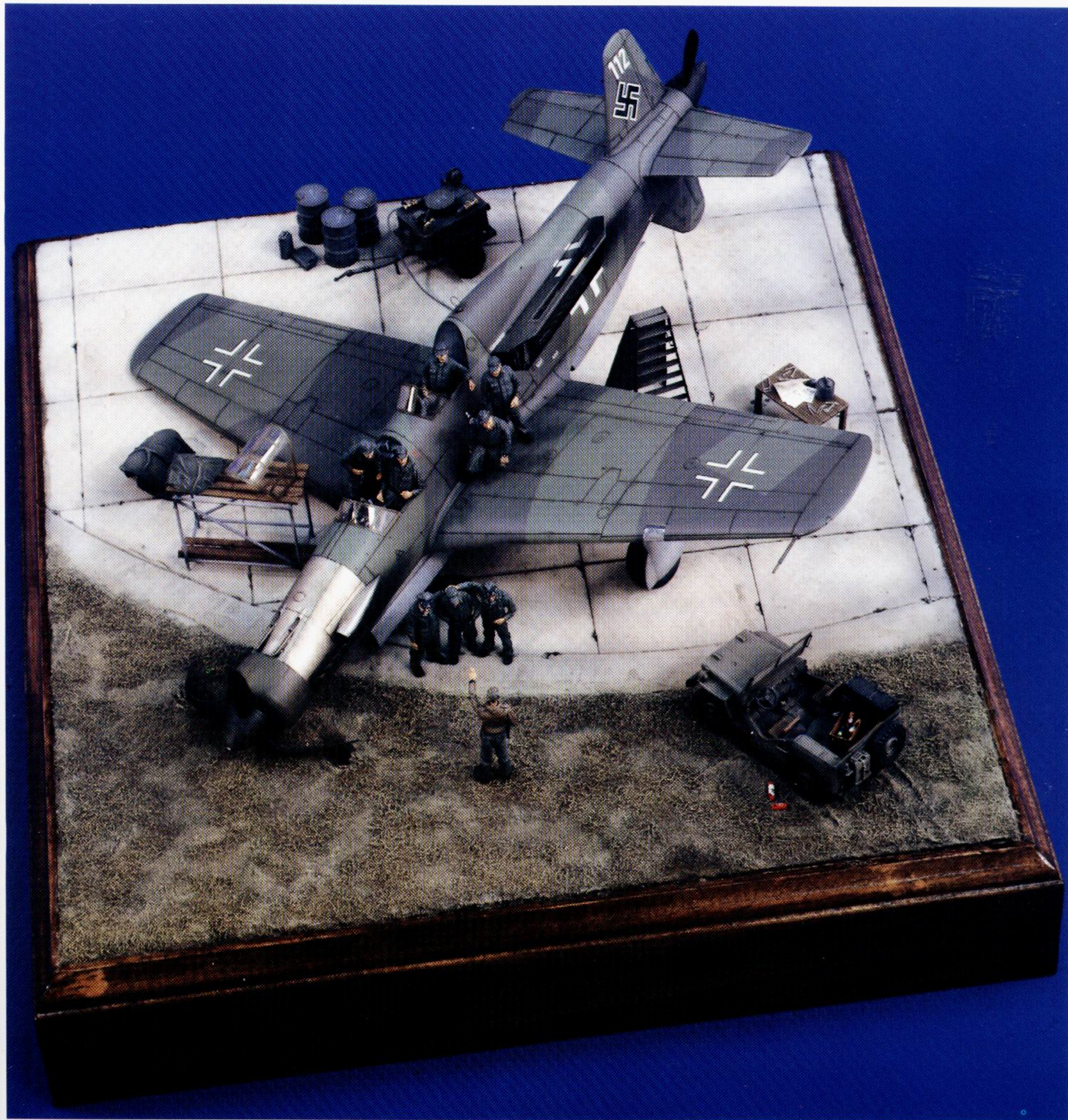
- Pro-modeler 1:48 Messerschmitt Bf-110G4 Nightfighter
- Super-detailed Matchbox 1:32 SBD-5 Dauntless
- Battle-damaged Monogram 1:48 B-17C Flying Fortress
- "Stukas in the Sand", a 1:48 North Africa diorama
- Hasegawa 1:48 F6F-5 Hellcat
- "Jets of the Luftwaffe", a 1:48 diorama featuring a pair of  
DML Me 262's



# Pictures for Home

by Greg Cihlar

Since I chose the Dornier Do-335A-12 as my first attempt at an aircraft diorama, I had to use either a late-war or post-war setting. Since I have always liked the look of vehicles, but in this case aircraft, in awkward positions, I decided to position this one as if the starboard main-gear strut had failed and tipped the airplane over on the side of the runway, bending the propeller blade. It was soon discovered by a group of GI's, who used it as an attractive backdrop for a picture to send home.



This angle of the diorama gives a clear view of the overall presentation, with the jeep and airfield supplies filling empty spaces and balancing the composition perfectly.



The figures were all carefully converted and positioned in order to focus attention on the central theme of the diorama. Removing the canopies was a very creative way to allow the figures to be spread over the airplane in a more convincing way. Note the scratchbuilt service platform, which provides a sensible option for displaying the removed canopy.

A 12 1/2" x 11" piece of plywood was built-up with styrofoam to provide the base. The grassy area was made by first covering the area with celluclay and fine sand, then randomly coated with thinned white glue and covered with brown static-grass. After this dried, I airbrushed it with dark, then light, shades of Brown Polly Scale water based paint. The concrete runway section was made with two thin coats of fast setting plaster. After dry, it was scribed with a grid-pattern to add interest. The runway section was airbrushed with a light shade of Gray, then washed with Raw-Umber oils, thinned with paint-thinner. The centers of each section was gently wiped with a clean cloth in order to accentuate the joints between the concrete sections.

Because I felt that this represented one of the most unique looking aircraft of the WWII era, I decided to use the D0-335 as the subject of my first aircraft diorama. Needless to say, like all Tamiya kits, the model went together beautifully. I added the rear engine from VP to add some extra detail to the model. I painted the "Anteater" with Gunze colors RLM 76 for the underside, and a splinter scheme of RLM 81 & RLM 82 on the topside. Next, a very light coat of light gray was misted overall to give a slightly "washed-out" look. I then picked out the panel lines with a wash of Raw Umber and Black oils, thinned with paint thinner. After this was dry, the entire model was sealed with a coat of Polly-Scale clear flat. After adding wires and cables to the engine, it was painted Flay Black, then dry-brushed with mixtures of Silver printer's ink and Raw Umber oils for a grimy metal look.

**"Say cheese!"** It is easy to see why these GI's chose to be photographed around this airplane, angled dramatically by landing gear failure.

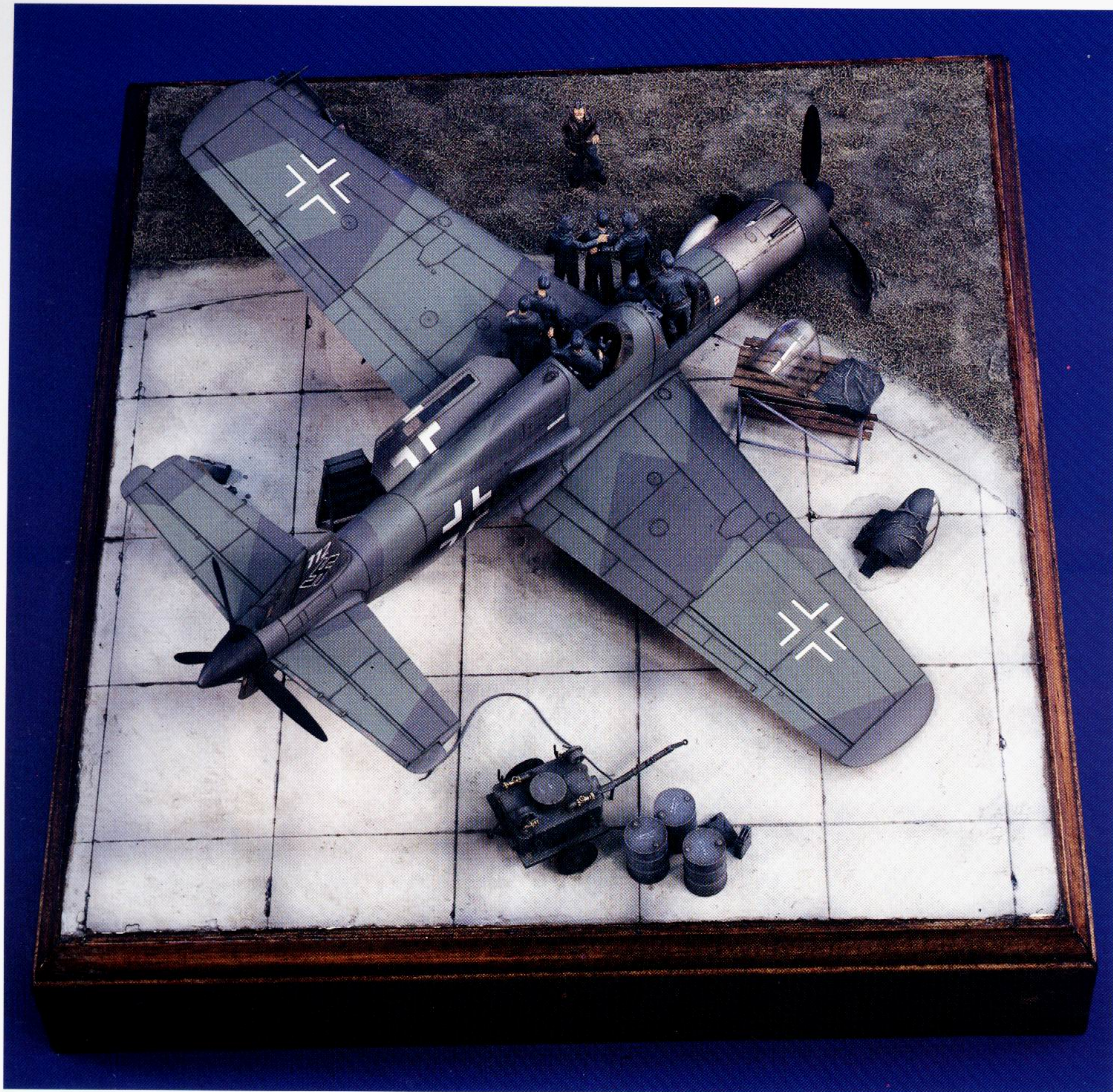




Photographed at a low angle with a suitable background, it is difficult to discern whether or not we are looking at the real thing. The opened engine cowling and service equipment create a very candid appearance.







**The curved edge of the tarmac effectively breaks-up the base, generating more interest to an otherwise limited choice for displaying aircraft models. The addition of airfield equipment makes a big difference as well.**

For the front engine cowling, I used Alclad II polished aluminum lacquer to give the airplane an appearance of having undergone testing before it met it's fate at the end of the war. For the canopies, I used the Eduard express masks, which is a great time saver for me, avoiding the hassle of trying to cut all those lines by hand.

The VP jeep was built straight from the box and painted with Polly-Scale Olive Drab and Olive Green, then washed with Raw Umber and Burnt Sienna oils and dry-brushed with a Khaki mix of oils. The VP Luftwaffe airfield cart was airbrushed with Polly-Scale mix of Grimy Black and German Uniform Gray, then washed and dry-brushed as usual. Other items on the diorama include a VP photo-etched ladder and oil-drums.

All of the figures are VP, and each one is converted in some way to fit the relaxed atmosphere I wanted to achieve with this diorama. All figures were positioned so that they would face the same camera, which helps to convey the theme of the diorama. The figures were painted with shades of Green and Gray Polly-Scale water-based paint, the faces & hands painted with oils.



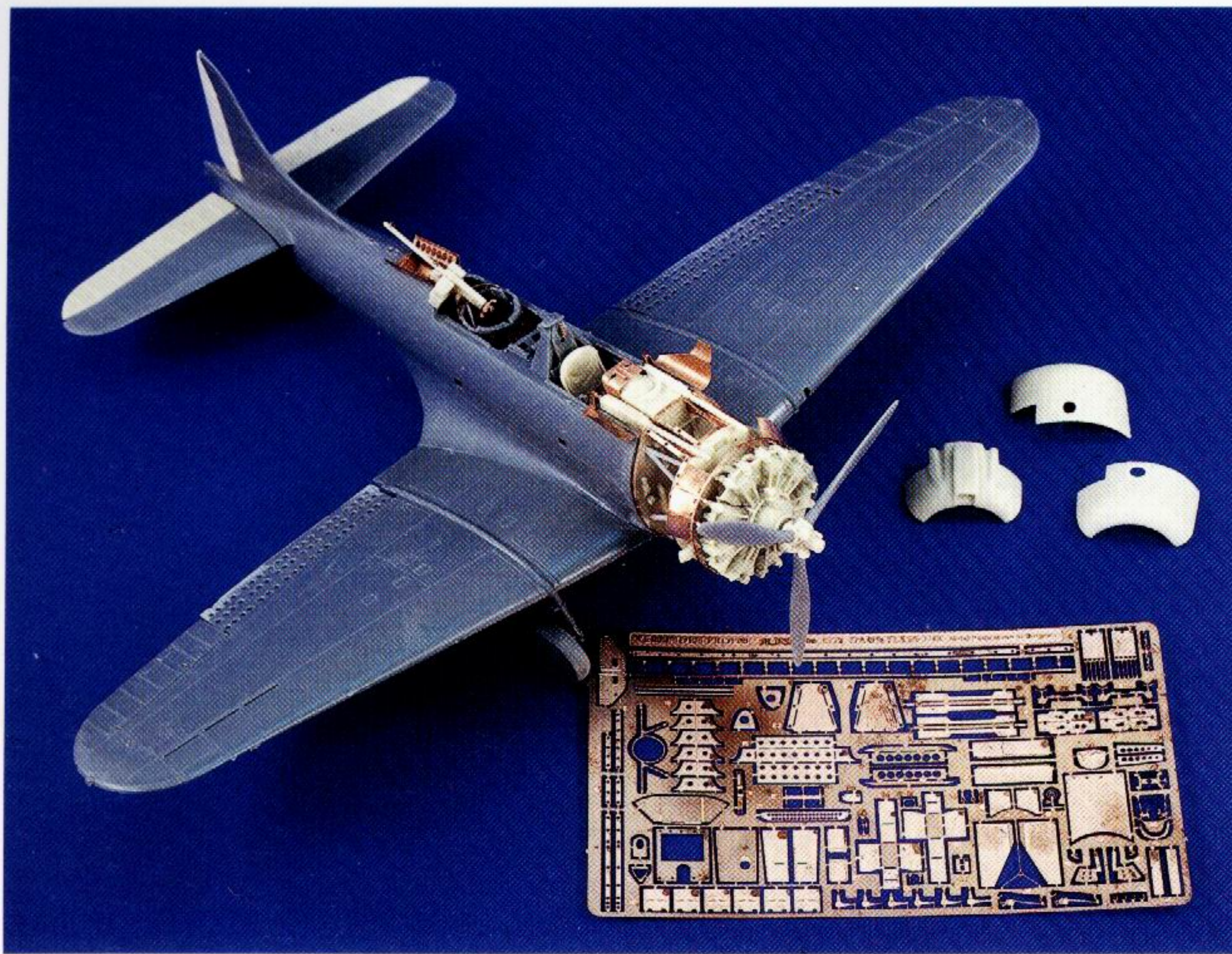
# DAUNTLESS

By VP Studios



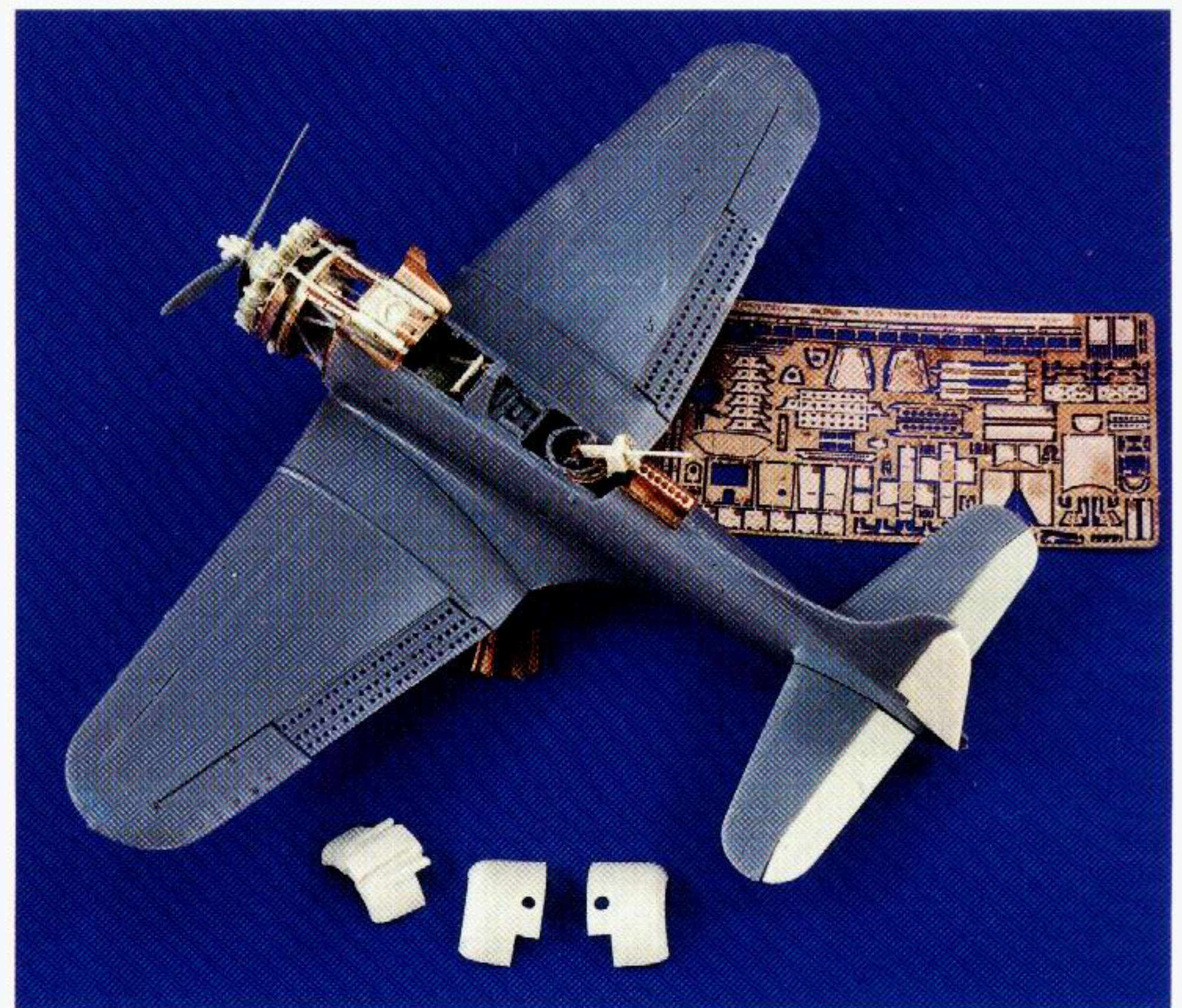
Our Dauntless is seen here after completion, ready to be placed on a diorama...



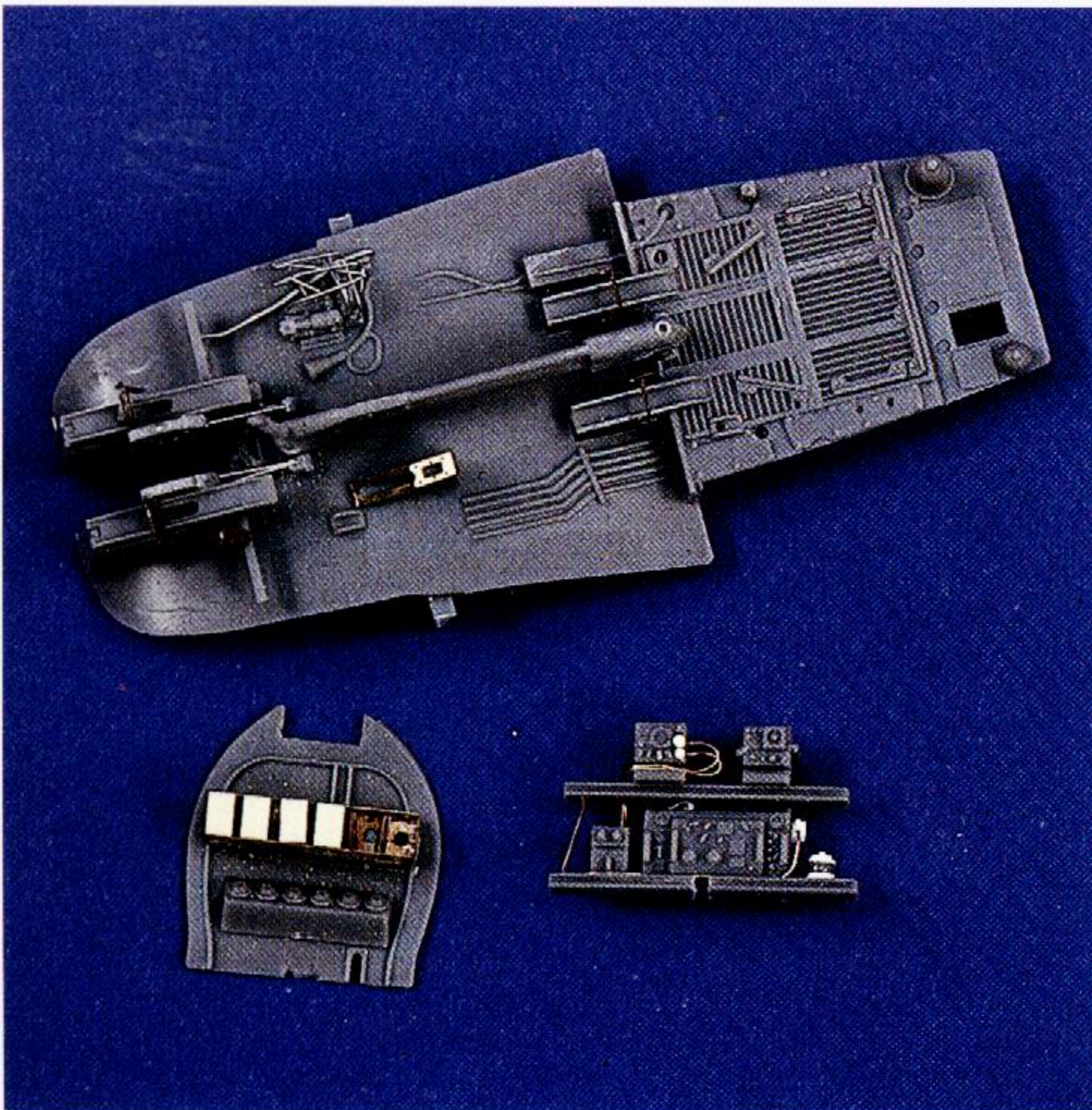


This resulted in the BT-2 reverting to Douglas and being re-designated the XSBD-1 ("B" became reserved for multi-engined aircraft). The improvements were a success, and the revised aircraft was ordered by the Navy in 1939 as the SBD-1 (Scout Bomber Douglas-1). Further minor improvements were made to the basic SBD airframe, resulting in variants up to the -6. But it was the SBD-3 that earned the aircraft its reputation as "Slow But Deadly", turning back the Japanese invasion forces at Coral Sea, and sinking four Japanese carriers at the Battle of Midway in 1942. The SBD-3 is the variant which we have chosen to depict here. The SBD-3 featured new extra crew armor, self-sealing fuel tanks, and an armored windscreen. It was powered by a new model of the Wright Cyclone engine, the R-1820-52, achieving a maximum speed of 250 mph. Internal armament consisted of two cowl-mounted .50 caliber machine guns, and a single .30-caliber flexible machine gun in the rear cockpit. This was later replaced by a twin mounting, but early production -3's featured the single gun, as depicted on our model.

In 1934 the United States Navy Bureau of Aeronautics (BuAer) requested proposals for a new purpose-built dive bomber. Of the numerous design proposals submitted, only the Northrop all-metal stressed skin low wing monoplane design succeeded in impressing the BuAer. The XBT-1 prototype was accepted by the Navy, who ordered an additional 54 production BT-1's from this new company. However, the BT-1 suffered from many power & handling flaws, and was quickly improved as the second generation BT-2. Again, the BT-2 was plagued with similar problems as its predecessor. Determined to solve these problems, Northrop flew the BT-2 to the new wind tunnel facility built by NACA at Langley, Virginia. However, before the crucial changes could be completed, Northrop resigned from his mother company, Douglas.

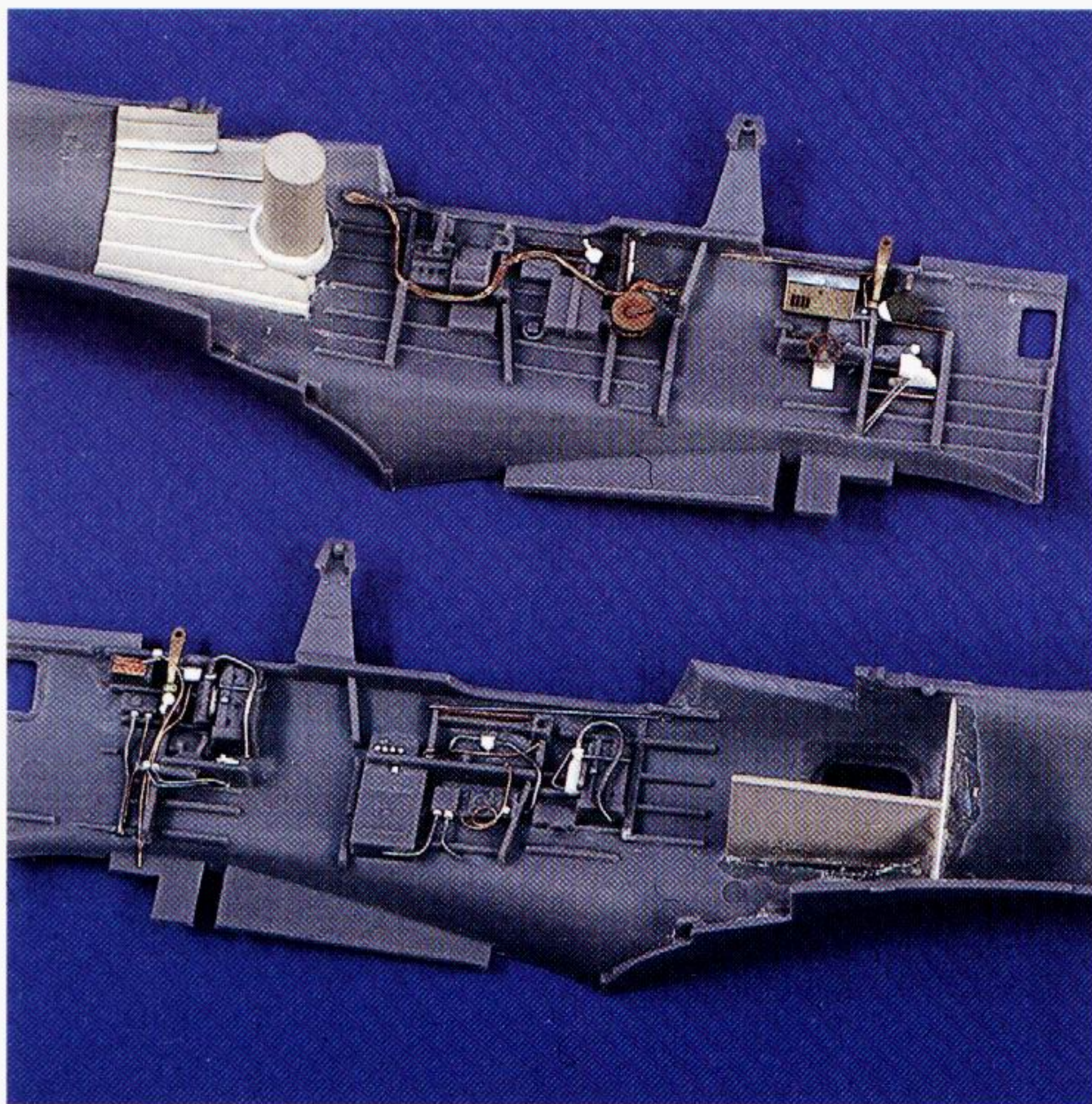


**The comprehensive VP #1378 SBD-1/2/3 Early A-24 Dauntless Super Detail Set. Resin & photo-etched parts are provided to replace the plastic engine, cowling panels, .50 & .30 cal machine guns, tail control surfaces, and extra details for the cockpit interior.**

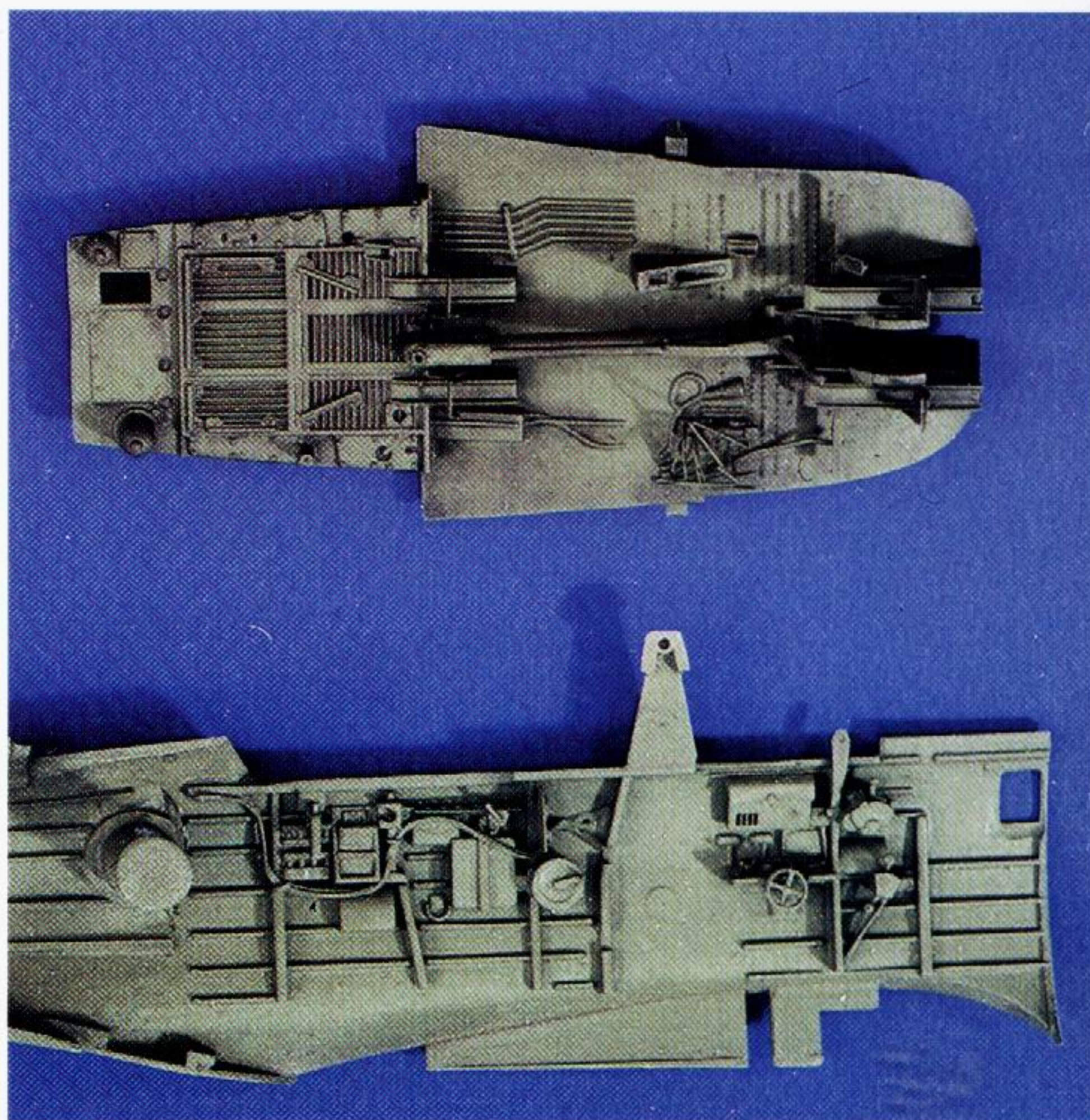


**The cockpit floor, bulkhead, and radios receive extra photo-etched details, as well as solder wiring.**

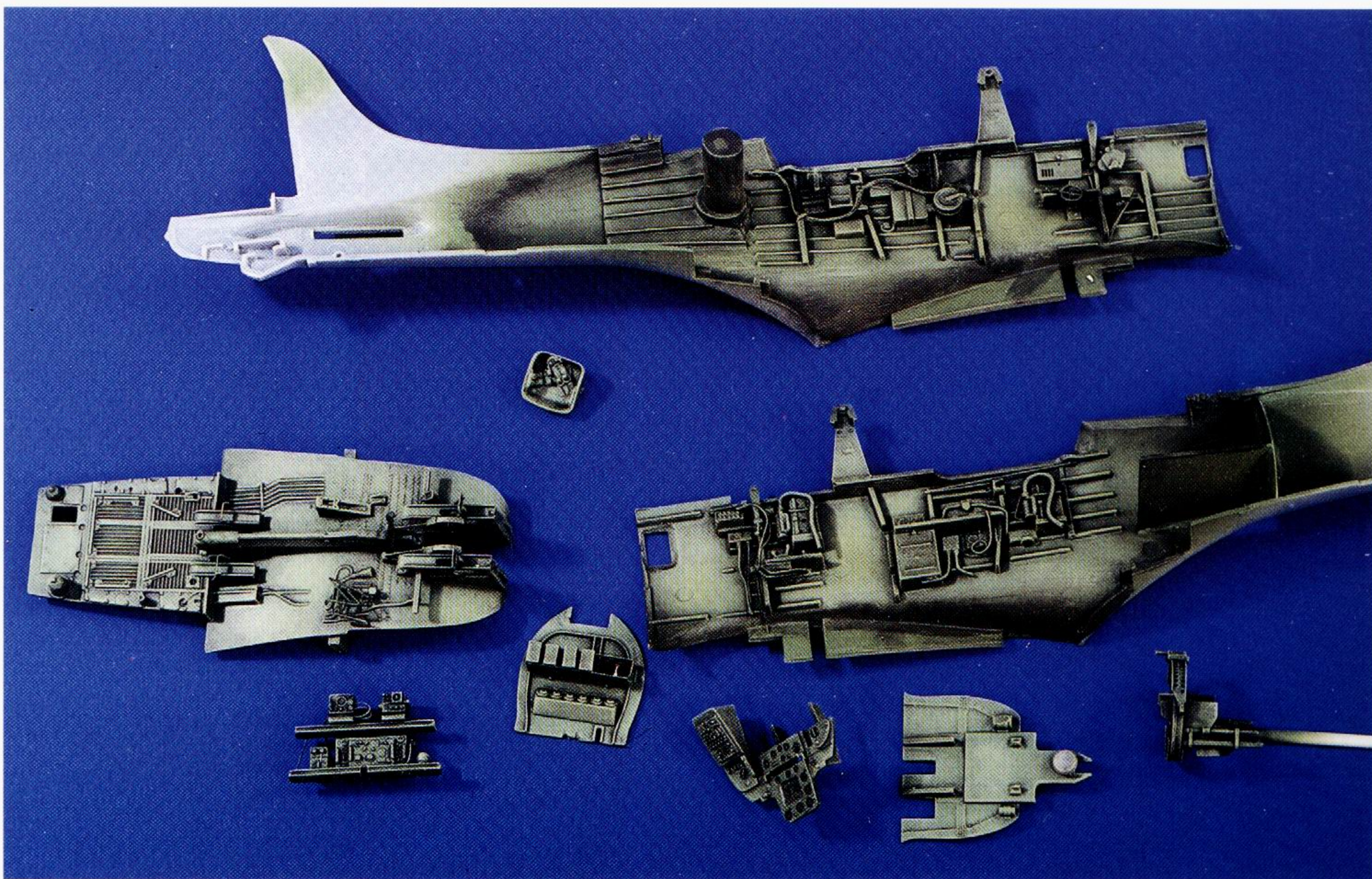




Here we can see the extra details added to the fuselage interior. Because we decided to open extra access panels in the rear fuselage area, extra details were built-up with styrene & Milliput. Note the extensive plumbing added with solder wire.

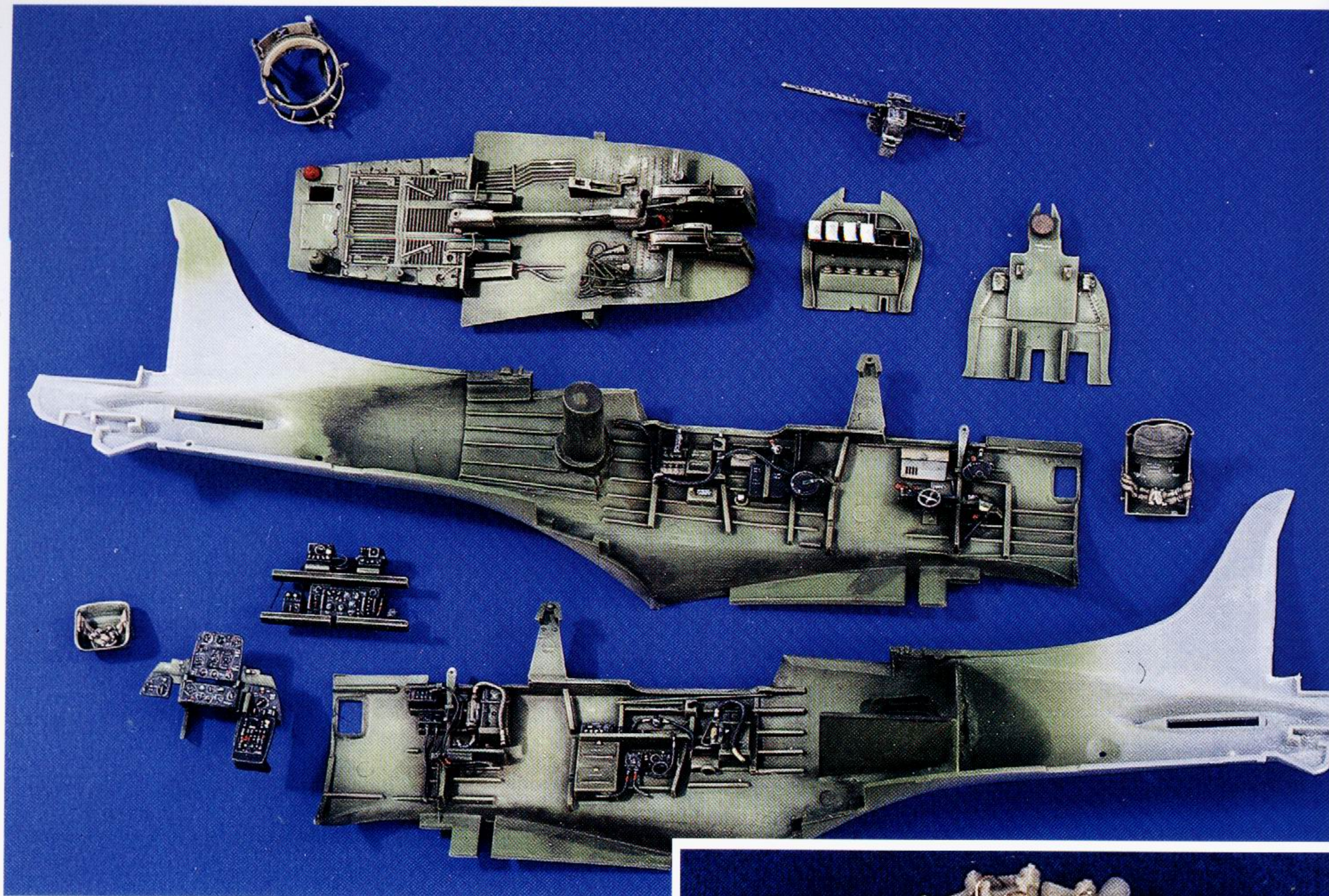


Before applying the various washes & dry-brushing, the interior looks very flat & insignificant. Even the extra details appear to be hidden.

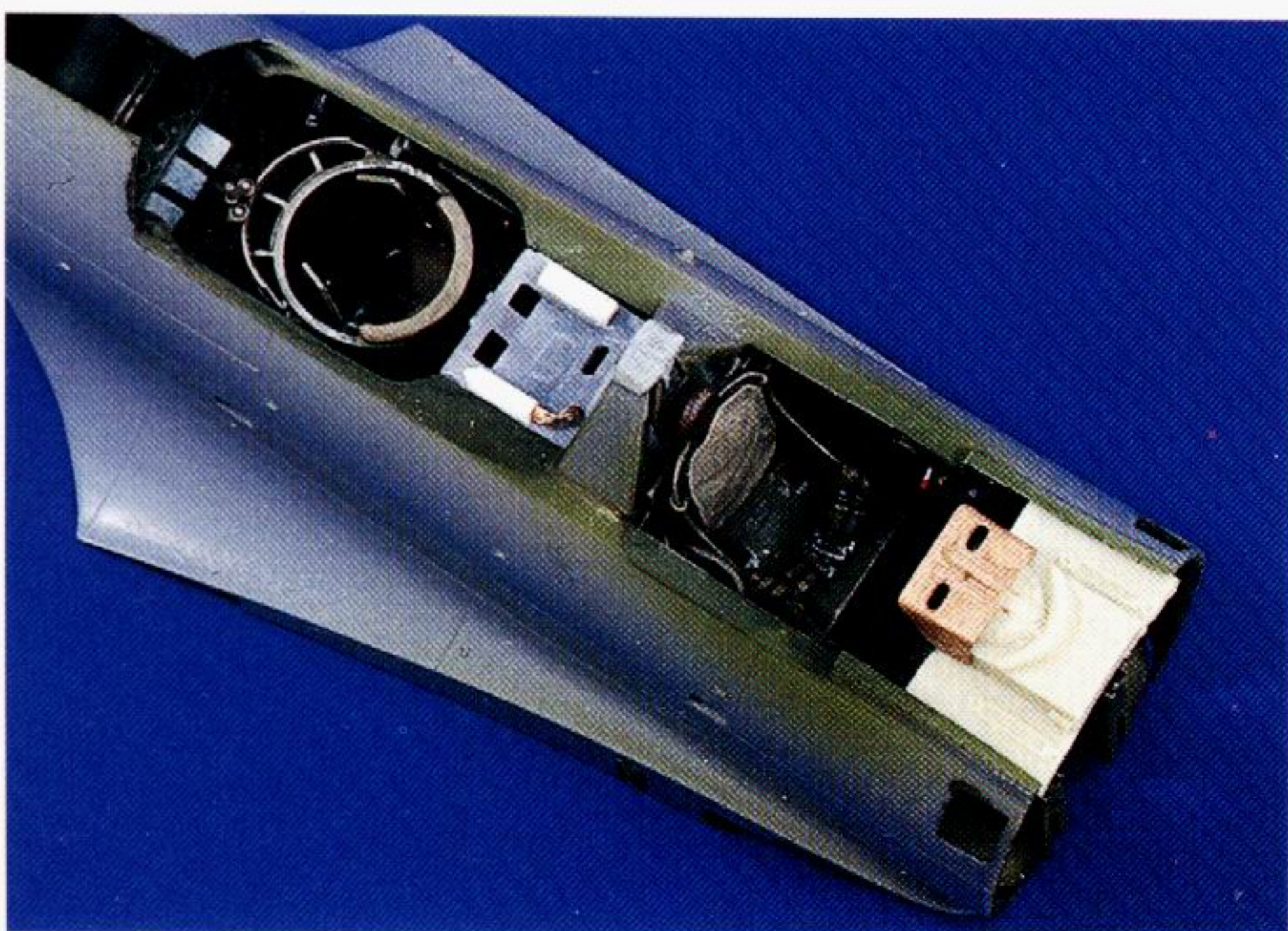


At this point, the interior has received washes of Raw Umber oils, and dry-brushing with successively lighter shades of Interior Green.





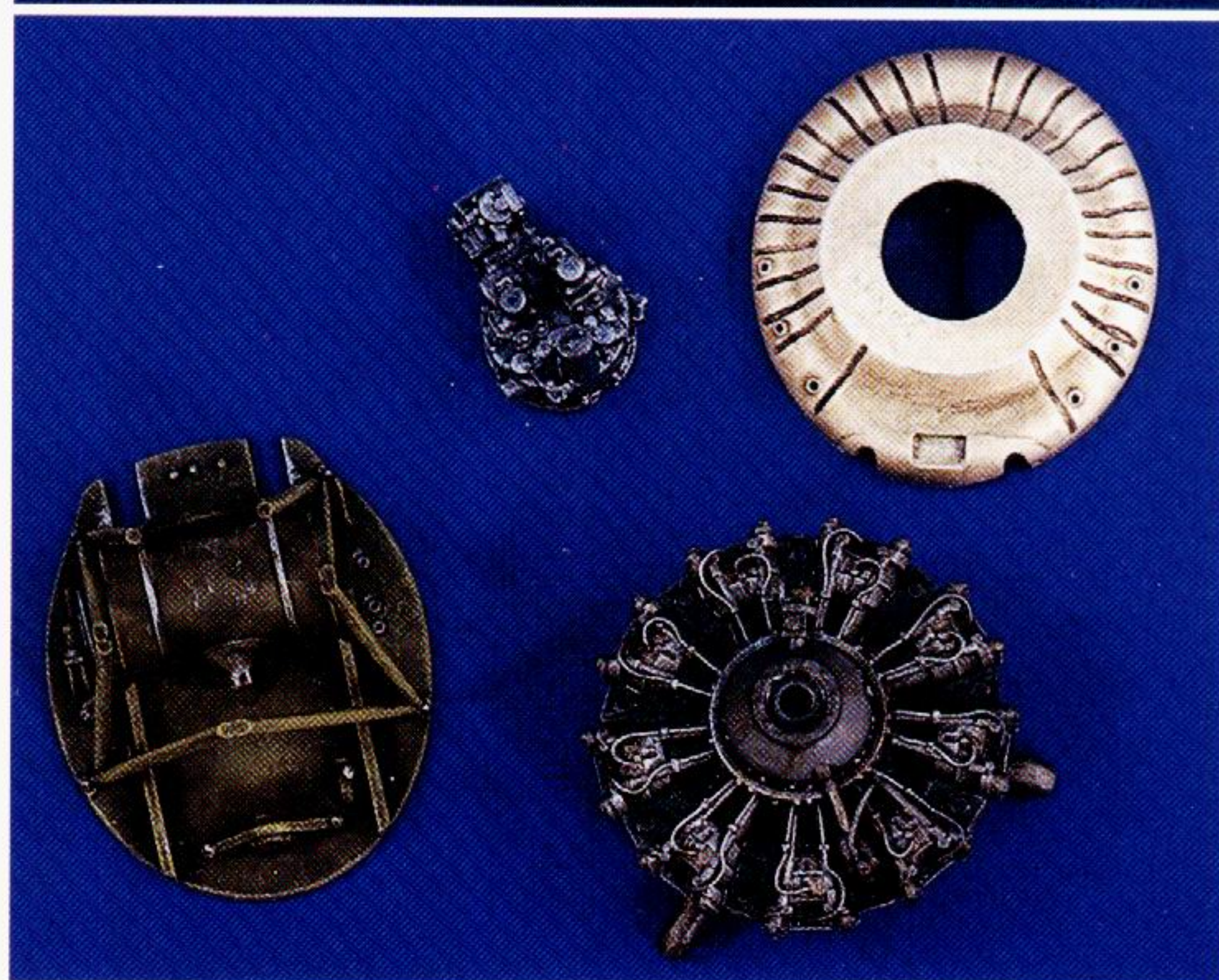
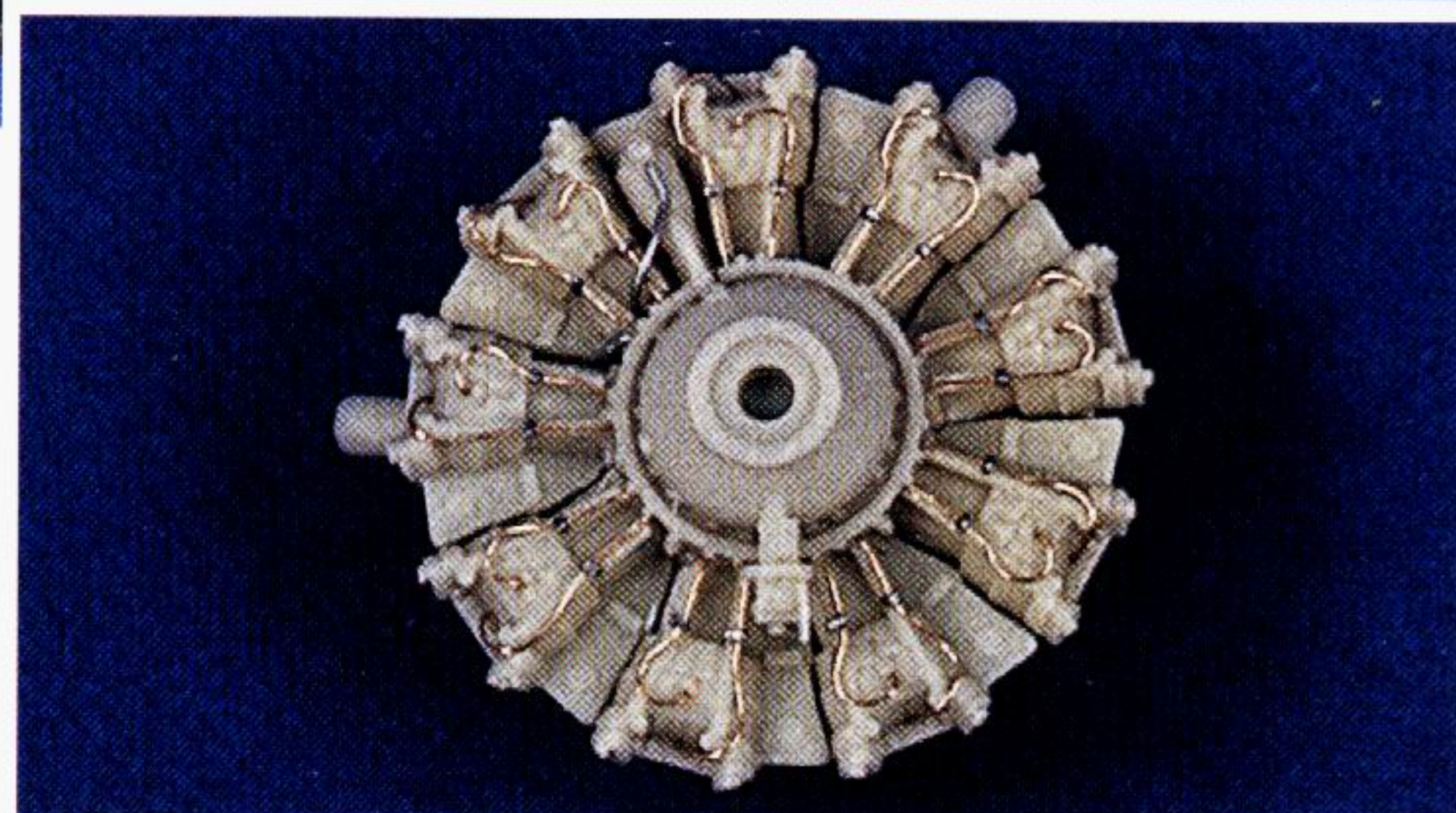
The final appearance of the interior is dramatic. After dry-brushing, the various boxes, switches, wiring, etc. have been picked out with a fine brush using the appropriate colors. Note the bare metal exposed by scuffing on the floor & other heavy use areas.



After the interior has been trapped between the two fuselage halves, further details are added to the upper decking.

A wire harness made from copper wire & solder add extra detail to the resin wright Cyclone R-1820 radial engine.

Prior to installation, the engine & firewall subassemblies are painted & weathered.



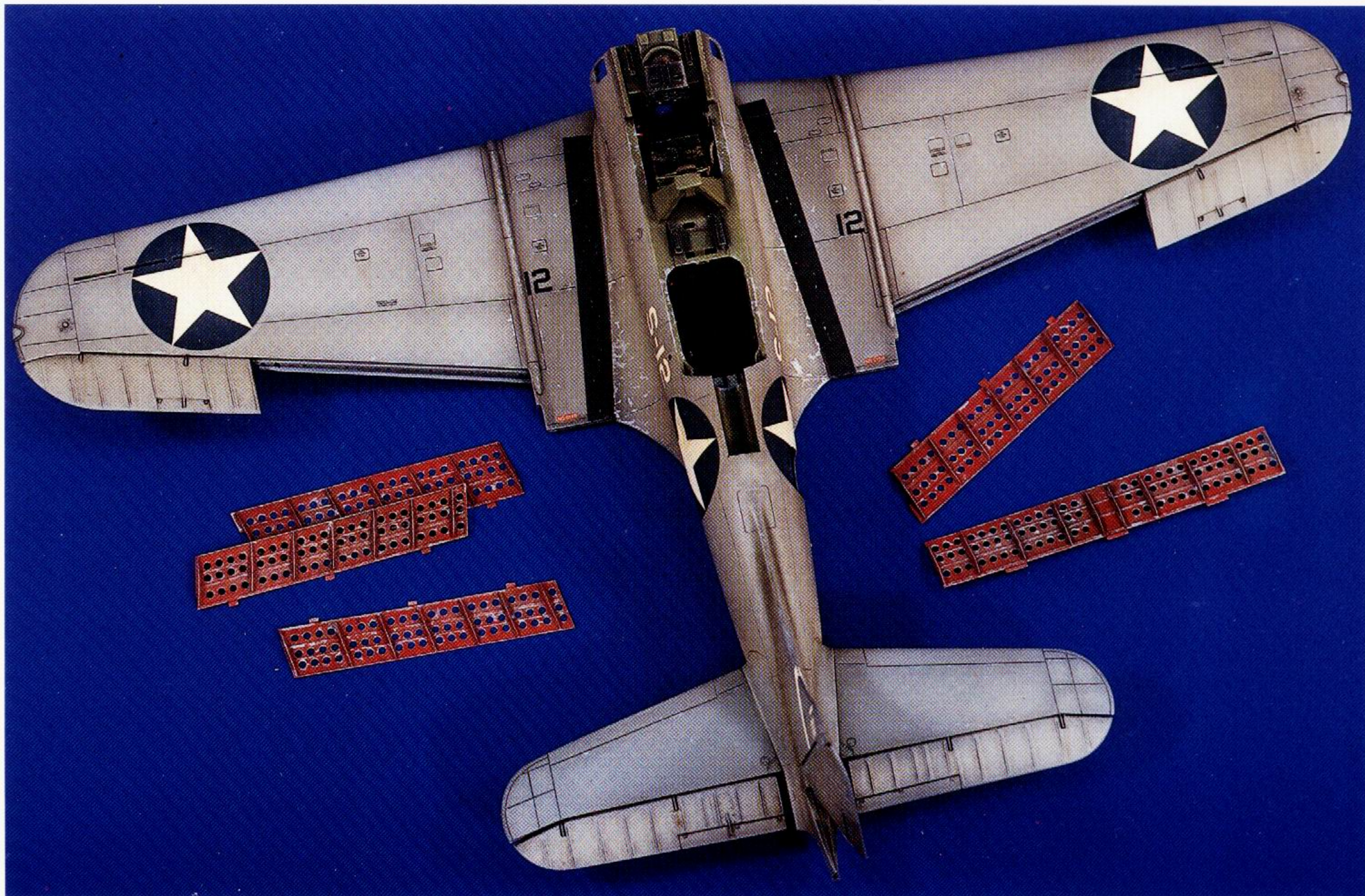




The assembled model was first painted with a Dark Blue mixture of Model Master enamels, followed by an overspray of the same with White mixed in. Note the lighter shade of the canvas colored control surfaces, which were further lightened with more White in the previous mixture.



The markings were modified to depict the USS Lexington based aircraft in the Accurate Miniatures instructions as it appeared after the Battle of the Coral Sea. Prior markings (provided in the kit) consisted of red & white stripes on the rudder, and red circles in the centers of the national insignia. To make the necessary modifications to the markings, national insignia were taken from a Tamiya Corsair kit, and the black "12" are from an old VP dry-transfer sheet. Here, the model has been sealed with matt varnish and is ready for weathering.



Here we can see the dramatic effects of washes & paint chipping. Salt water, wind-blown sand, and crew traffic can dramatically transform the appearance of an aircraft. The dive brakes are photo-etched assemblies from Eduard.

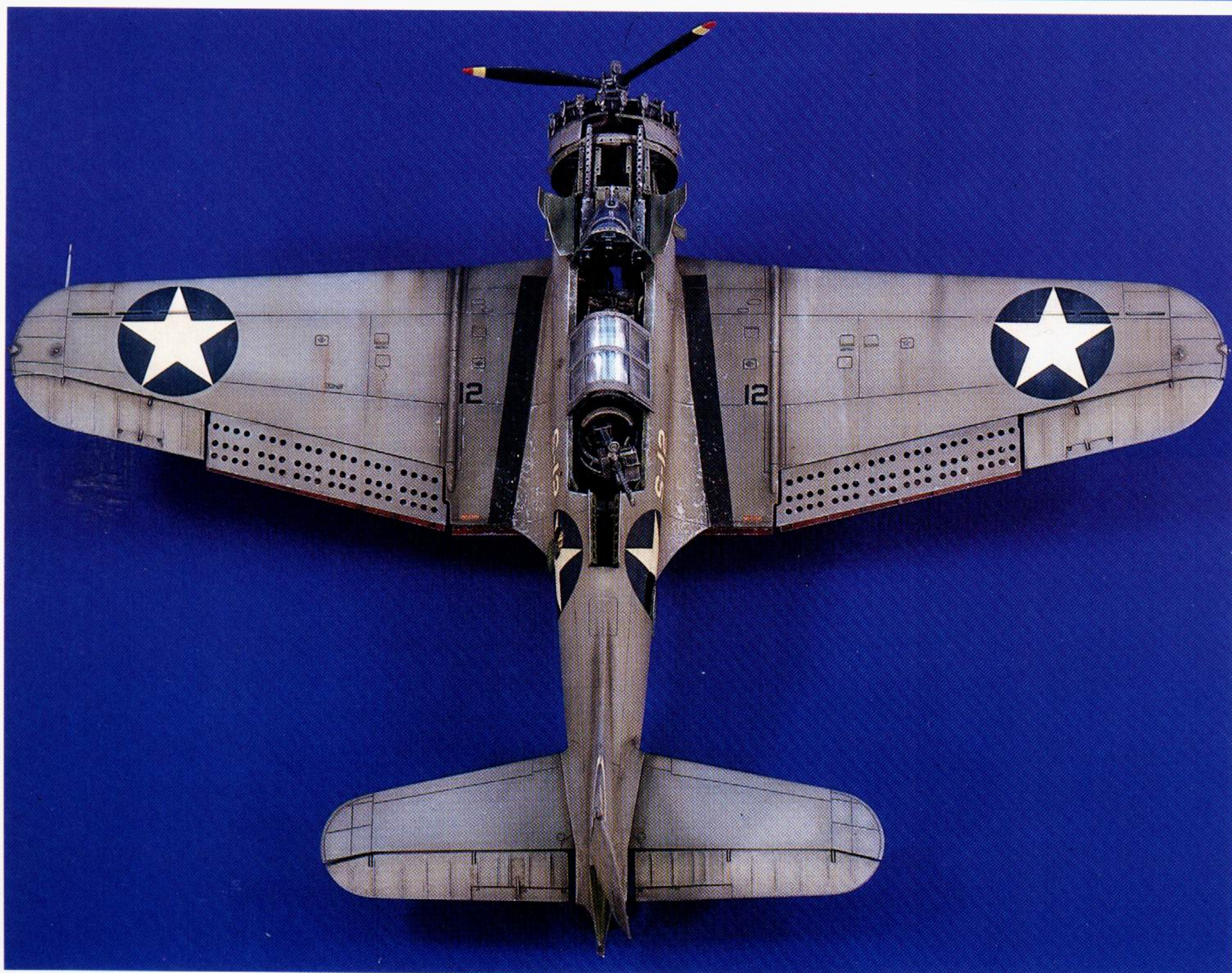


The Dauntless could carry a maximum of two 325 pound bombs (1 under each wing), but most commonly carried 100 pound bombs of demolition, incendiary, fragmentation clusters, incendiary clusters, or practice variants.

By the end of WWII, the "Slow But Deadly" was responsible for sinking over 300,000 tons of enemy shipping, including 6 Japanese aircraft carriers, shooting down at least 138 Japanese aircraft, and destroying hundreds of shore-based targets. Less than 80 Dauntlesses were lost to enemy aircraft, the lowest loss rate for any American carrier-based aircraft in WWII. Obviously, the Dauntless was a very significant contributor to the American war machine in the Pacific theater.



All cowling panels were left off to expose the detailed engine for an upcoming maintenance diorama. Here we can clearly see the effects of wind-blown sand along the leading edges of the wings & propeller.



After the weathering process is complete, the model can finally be assembled completely. Note that the upper dive brakes are not raised when this aircraft sits on the ground.



All of the bare metal effects on the airframe & dive brakes were painstakingly applied with a fine brush using a mixture of silver printers ink & Raw Umber artists oils.

Applying the heavy wash on the underside not only reveals the numerous access panels, but also stains the paint & collects in the corners & recesses.

The retractable landing light is provided in the kit, but the multi colored I.D. lights are from Greif.





# Scrap Metal

## The End of the Luftwaffe

By Charlie Pritchett



This particular photograph illustrates what inspired me to configure these aircraft as I did. I came across a similar photograph of the real thing in a reference book, and the rest is history. This angle also provides an excellent view of the underside of the aircraft. Note the tail wheel, which has swung around after the tail was hitched up into the air.



Although the Luftwaffe possessed some of the finest and most innovative aircraft in any air force of the world at the time, it was unable to prevent the Allied advance into Germany. The Allies had more men, more resources, and superior tactics than the Luftwaffe could deal with. In addition, many of the most promising aircraft in the German inventory were grounded by a lack of materials, such as special wood glues, plastics, metals, or even basic fuel supplies. Those that did fly were either flown by younger, less experienced pilots, or were quickly pounced on by marauding Allied pilots seeking air superiority. The Luftwaffe started the war as both the most dreaded and most respected air force in the world, but by the end of the war it was merely a shadow of its former self. Notwithstanding the valuable technical innovations of advanced aircraft such as the Me 262, Do 335, or He 219, among others, they simply arrived too late to make any difference in the outcome of the war.

After the war, most Luftwaffe aircraft were bulldozed into huge pits, cut into pieces, and scrapped in an effort to "forget" the atrocities of the war, as well as to begin the massive campaign of reconstruction across Europe. Although some aircraft were taken by the victorious Allies for technical evaluation, some of which are the very few that are still preserved today, the vast majority were destroyed.



Not only is the diorama viewable from every angle, but the base is broken down into four sections, sort of like a circle graph. The wings & fuselage of the D-9 form the dividers between the different sections. One section is devoted to engine parts, another to airframe & cowling panels, another the jeep, and the last "miscellaneous" parts.



This diorama depicts the last days of a pair of once fearsome Focke Wulf 190's as they are being picked over by G.I. Joe for any interesting souvenirs before being scrapped. I've been kicking this idea around for a couple of years, and after reducing the originally imagined number of airframes considerably, settled on the two Fw 190's. The Fw 190 has always been an attractive and fascinating fighter aircraft to me, with all of the different variants and color schemes, and I have attempted to reflect some of that diversity in this piece. For example, the radial and in-line engines, the fuselage extension plug, the extended and recontoured tailplanes, and the variety of armaments. These features are visible both on the airplanes as well as in the spare parts laying around them. My main objective for this diorama was to replicate the look of the post-war scrap-yards, with lots of broken and spare parts. This translated into a lot of work! I decided early on not to get bogged down in endless research. I'm certainly not against high levels of accuracy and detail in modeling, but I have (like most modelers) a growing stockpile of unfinished projects, and if I wanted to finish this one anytime soon, I had to make the painful decision. This doesn't mean that I glossed over everything either, but tried to avoid making the endless "corrections" to a host of inaccuracies pointed out by the "experts". My focus from the outset was the final presentation, so other than adding some aftermarket detail parts, I added very little extra detail to the two Tamiya kits. The only real "super detailing" done was the internal structure of the Ta 152 style tailplane laying on the ground, and the radio compartment of the D-9, both of which were detailed with styrene strip & rod and copper wire. The figures were all converted from various VP figure sets.



The advantage (or disadvantage, depending on how you look at it) of having a 360° diorama is that there is something to look at from all sides. This requires more care when composing the work, but the results are always worth it when successful. No area is without interest.





I was experimenting with Polly Scale water based paints for the first time when I painted this model. No one ever told me to strain these paints before airbrushing (until after the damage was already done). After clogging my airbrushes continuously over a four hour period, this is the result. Needless to say, I refrained from throwing the model at the wall and stripped it and repainted it with Model Master enamels.



The D-9 after painting. Because it is in a post-war setting, I didn't want too "clean" of a paint job, so I oversprayed the darker RLM 82 over the lighter RLM 83 on the fuselage. Much of this effect is blended in later with the weathering process, as is any ugly overspray. The same technique was used on the A-8.



Much of the extra detailing added to these models was in the repositioning of the control surfaces, which adds a much more candid appearance. The flaps came from VP #1343 Fw 190 underwing stores.



The D-9 prior to masking. The cockpit from Techniques was used because of the photo-etched rear deck, but all of the other add-ons came from VP, including the various gun bays and flaps.



The most challenging aspect of finishing this diorama was balancing the composition on the base. I wanted to keep the base compact, but at the same time accommodate two airframes, lots of spare parts, a jeep, and the figures. This meant constantly shifting and repositioning the various parts until the current configuration was decided on. A few bare patches of dirt, as well as a tree stump, made a big difference by breaking-up the monotony of the otherwise plain grassy field. This is the second base I made for this project after becoming dissatisfied with the first, which was a smaller round base, covered only in grass.

The base started as a raw pinewood oval plaque from the local craft store. A few coats of stain and varnish prepped it for the groundwork. After carefully determining the layout of the models and parts, the groundwork was made quickly by mixing some tile grout repair mortar and spreading it smooth with a butter knife. Fine sand and gravel was sprinkled in a few places, and static grass covered the rest. Then all of the various elements of the diorama were carefully pressed into their places on the soft groundwork and promptly removed.



This allowed the different parts to "key" into the hardened base later (it was still hard to find where everything went!). After drying thoroughly, the grass was painted with Tamiya Dark Green, and dry-brushed with successively lighter mixtures of the same, until the final mixture was almost pure yellow (this diorama takes place in the summer of '45). Then the exposed dirt was painted with Tamiya Red Brown, and dry-brushed with successively lighter mixtures of the same...you get the idea.

Because of the configuration and placement of the aircraft, this diorama is most dramatically viewed from eye-level. The paint chipping was done with a mixture of Silver printers ink and Raw Umber oil paint, and a very fine point brush. Note the seatbelts in the cockpit of the upturned A-8, which are hanging straight down in accordance with the laws of gravity.





This view provides a closer look at the "engine parts section". The engine block is the beautifully detailed Jumo 213E from the Trimaster/DML/Hasegawa Ta 152H. Most of the other spare parts are items from various VP Update sets.

**Kits Used:**

Tamiya #61039 Focke Wulf 190F-8  
 Tamiya #61041 Focke Wulf 190D-9  
 Techniks Fw 190D-9 Cockpit  
 VP #0438 Focke Wulf Fw 190F-8/A-8 Super Detail Set  
 VP #0482 USAAF Ground Crew WWII  
 VP #0483 USAAF Fighter Pilots WWII  
 VP #0812 Tree Trunks  
 VP #1137 Ju 87 Stuka Update Set  
 VP #1190 Fw 190D-9 Engine & Detail Set  
 VP #1261 Luftwaffe Aircraft Guns  
 VP #1301 "Follow Me" Jeep Airfield Communications Vehicle  
 VP #1302 Me 109G-2 Super Update set  
 VP #1321 Me 109 Underwing Stores  
 VP #1343 Fw 190 Underwing Stores  
 VP #1367 Luftwaffe WWII Gun Cleaning  
 ... And lots of parts from the scrap-box!



Instead of spending countless hours damaging the aircraft (which means thinning the plastic from the inside and adding dents & gashes to the outside), I decided to open lots of access panels (which also turned into spending countless hours adding the necessary internal details...). In reality, these birds would probably have been full of dents, dings, and gashes, but the opened and missing access panels combined with heavy paint chipping still make it work. Note the bullet holes on the tail section of the upturned A-8 (I couldn't help it).



# PACIFIC JOURNEY

By VP Studios





We send our "Dauntless" to a base on a Pacific island for repairs.

After completing the super-detailed SBD-3 "Dauntless", it was time to build a suitable diorama for the final display. Although it was a carrier based aircraft, it was not uncommon for these planes to land on friendly airfields for service & repairs. We decided on the more dramatic and attractive Pacific land base, as opposed to the more limited base of a carrier deck. Our "Dauntless" is undergoing major engine repairs with all of the cowl-ing panels removed, so we had extra flexibility and diversity when collecting suitable accessories for the diorama. We started with a plain sheet of VP resin PSP Plating, and built the scene around it. The following series of photographs conclude the development of this attractive project.

Items used:

Accurate Miniatures #3411 SBD-3 "Dauntless"

VP #0058 Palm Plants

VP #0078 Palm Trees

VP #0808 Tools

VP #1378 SBD Dauntless Super Detail Set

VP #1478 Aircraft Service Ladders

VP #1736 Airfield Section PSP plated

All figures converted from various VP sets.

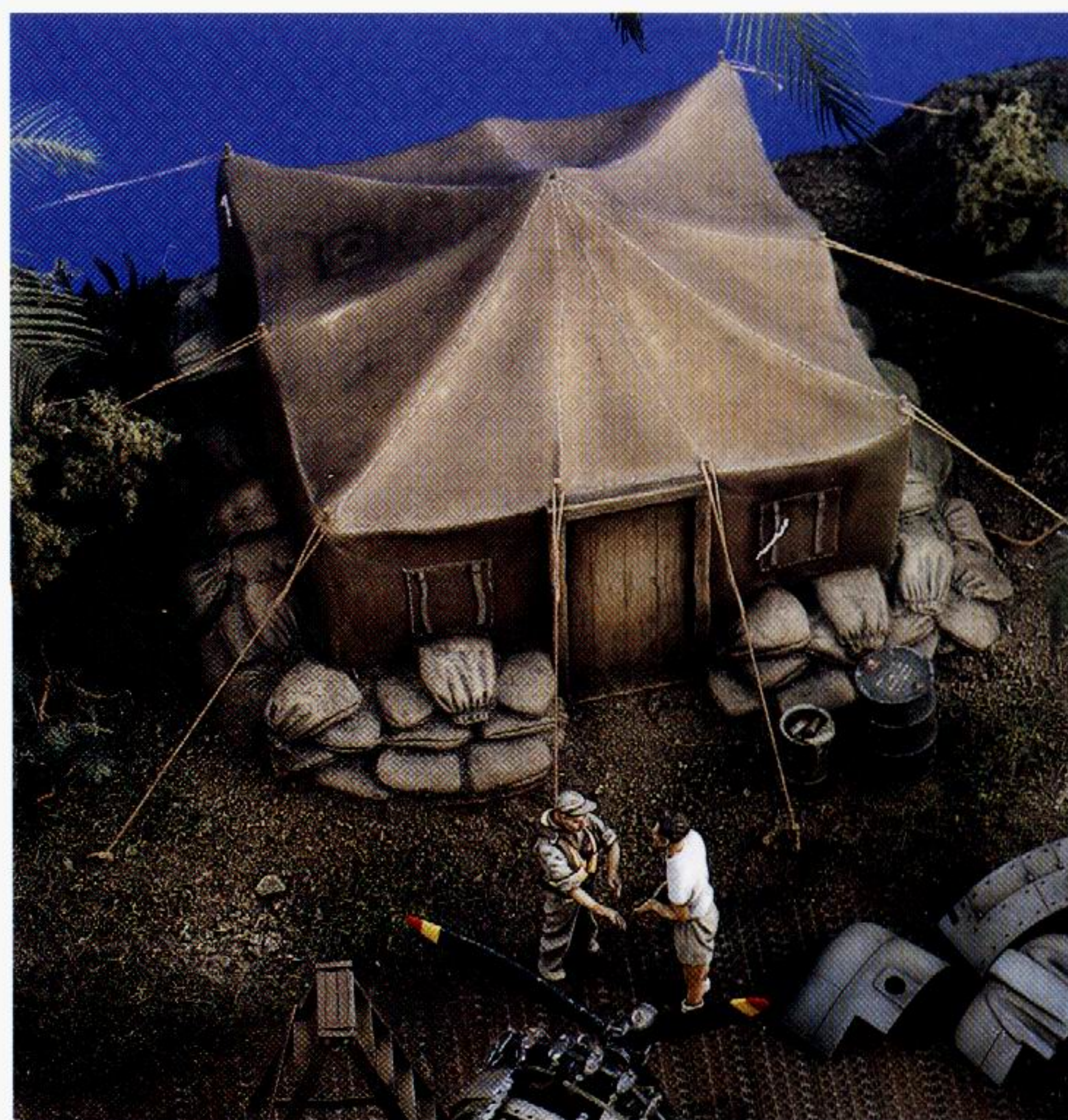
Woodland Scenics Leaf Turf



The basic set-up. Here, the VP 1:48 resin PSP sheet is glued onto a plywood base. Pre shaped Polyfoam sheets are used for building-up the groundwork.



All basic components are built into the base with Porion tile grout. Cat litter & sand are then added to the still wet groundwork, and static grass is sprinkled over in irregular patches to form the base for the vegetation. After dry, all of the groundwork is painted with Delta "creamcoat" acrylics Raw Umber.



The VP 1:48 tent was base coated with a mixture of Humbrol Matt 29 Dark Earth and Black, and then dry-brushed with successive layers of Matt 29 and Matt 72 Khaki Drill. Washes of a dirty brown color finished the job.



A closer view of the front of the aircraft showing a mechanic working on the engine. Note the tools laying on the ground and wing. Also note the fuel & oil stains, which were applied with thinned Burnt Sienna and Black artists oils.

The resin PSP plating sheet was base coated with a mix of Humbrol Matt 29 Dark Earth and Matt Black. Before drying, it was carefully wiped with a rag to allow the lighter resin color to show through. After dry, several washes of Burnt Sienna mixtures in artists oils were applied. Old rust is a darker mixture, while newer rust is much lighter, requiring some Yellow to be mixed in.







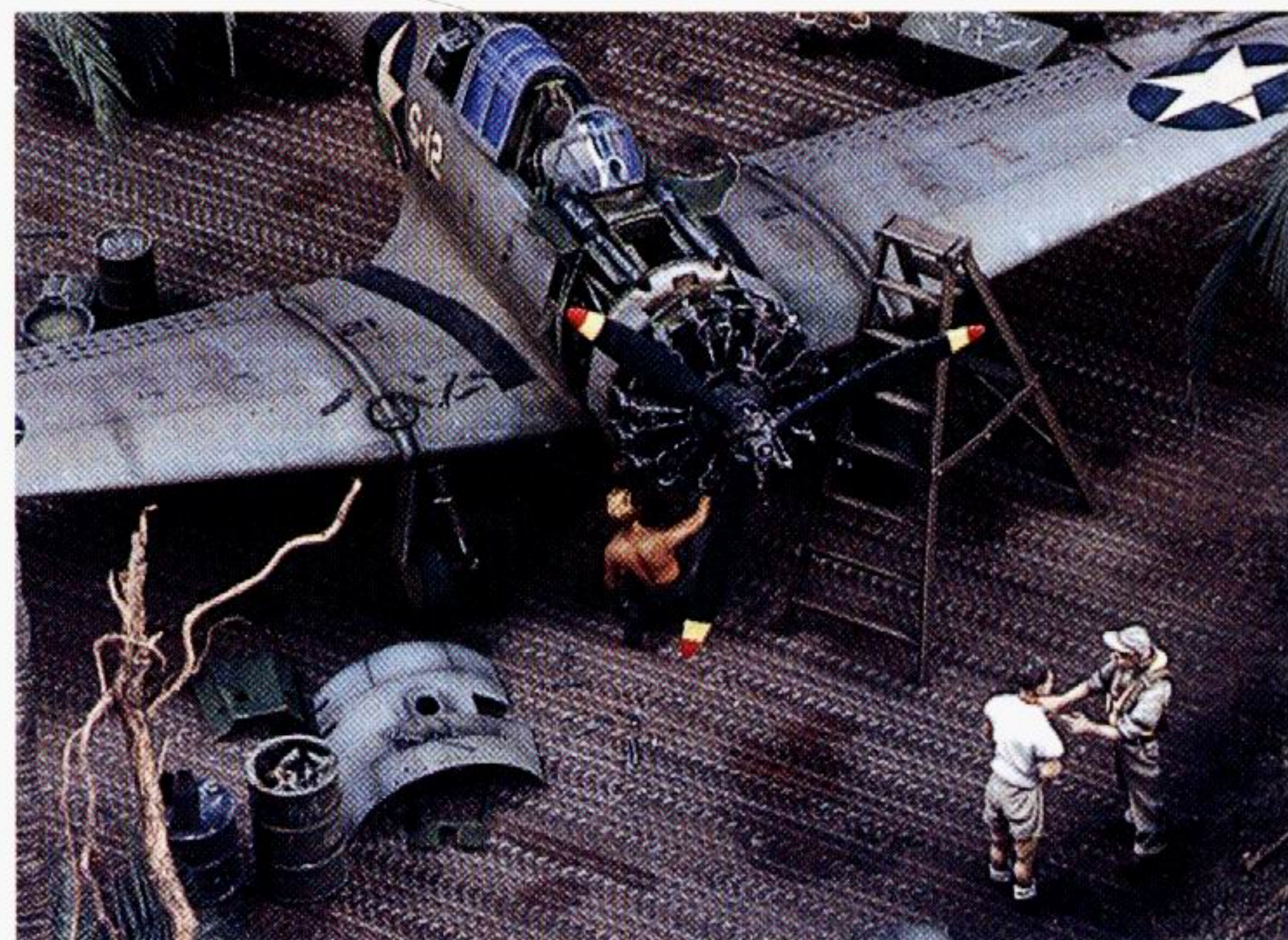
A mechanic is busy cleaning cal. .50 machine guns on a makeshift table. Again, tools, ammo boxes, tool box, cleaning fluid, etc. can all be painted & weathered to match the diorama. Also note the various shades of rust, dirt, & metal on the PSP plate base.

Overview of the completed scene, showing all of the items used to create a typically messy maintenance corner: aircraft parts, oil & fuel barrels, ammo, tools, equipment, crates, etc.

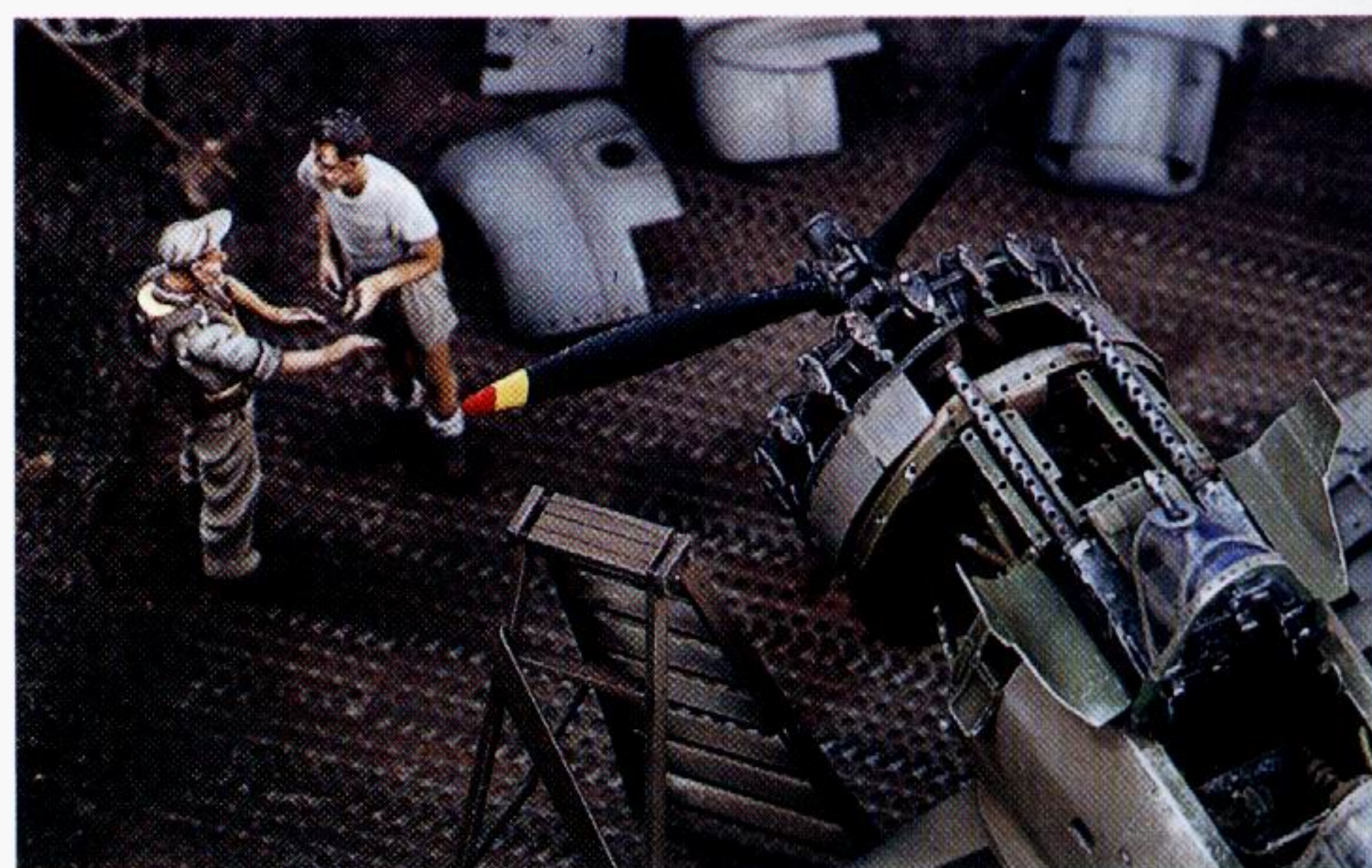




Heavily weathered fuel & oil drums, wooden equipment, spare parts crates, and a few aircraft wheels fill an empty corner and add color & interest to this area.







A combination of VP Palm Trees & Plants, Woodland Scenics leaf foliage & coarse turf, roots, aquarium plants, and various photo-etched plants are all combined to create a very convincing section of tropical vegetation.



# Night Stalker

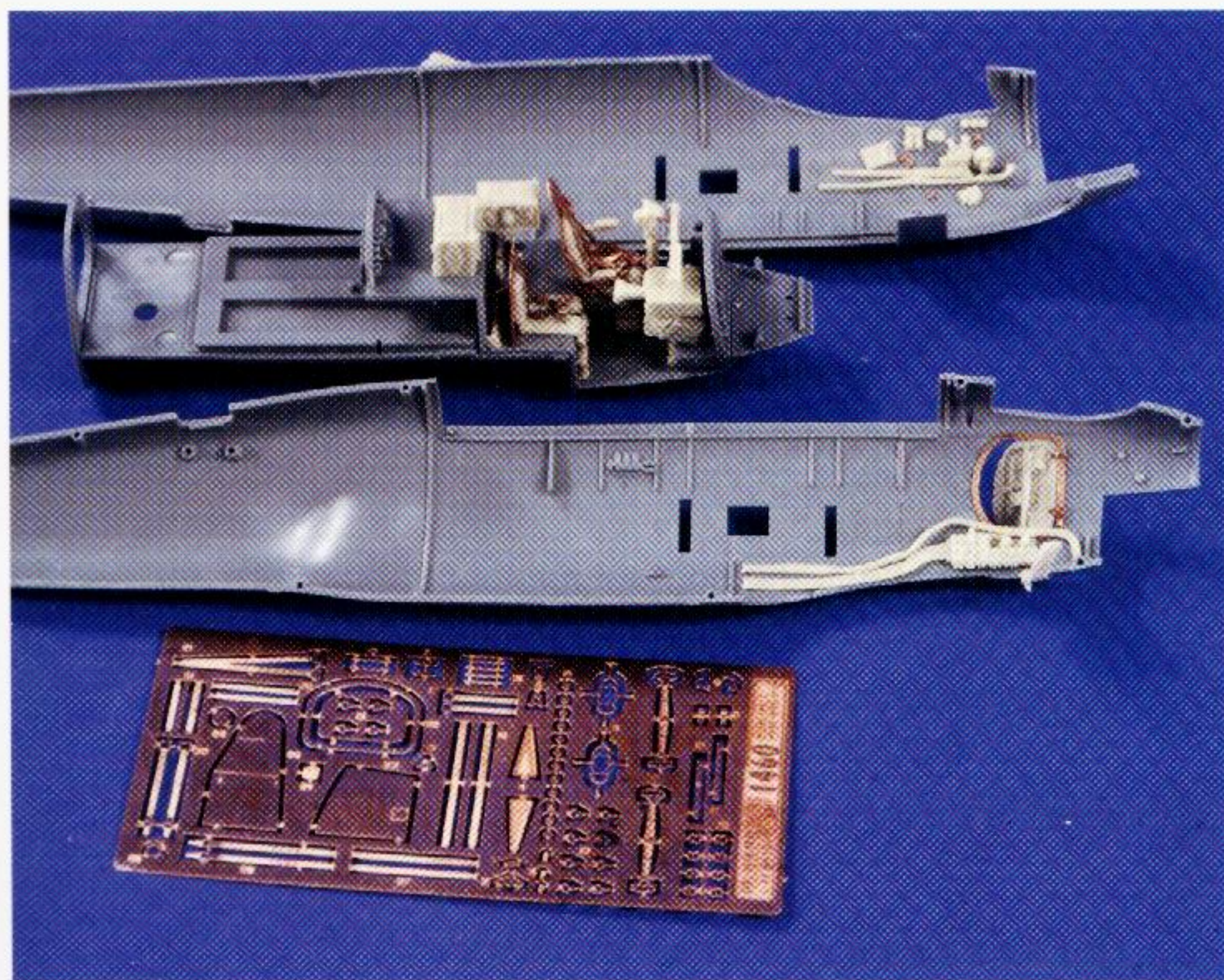
Painting and weathering Tamiya's  
N.F. MK.II Night-Fighter

VP Studios

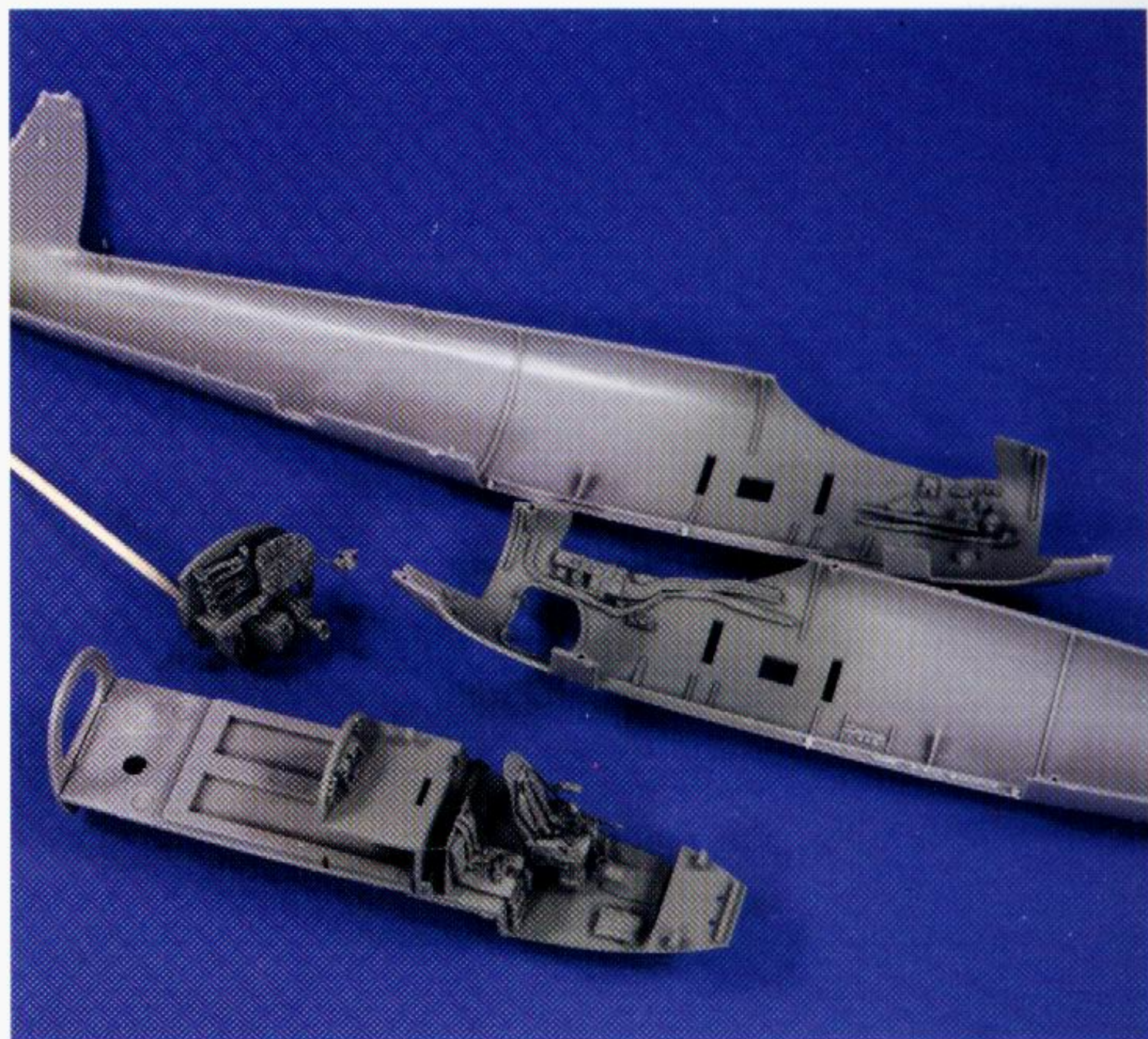


In this case guided by the A.I. Mk IV RADAR, the mosquito was one of the most successful allied nightfighters of WWII, rivaled only by the menacing He-219 "Uhu" of Germany.





All of the components of the Mosquito cockpit set (VP#1460) installed into the Tamiya kit prior to painting. After careful test-fitting, everything fits very neatly into the fuselage.



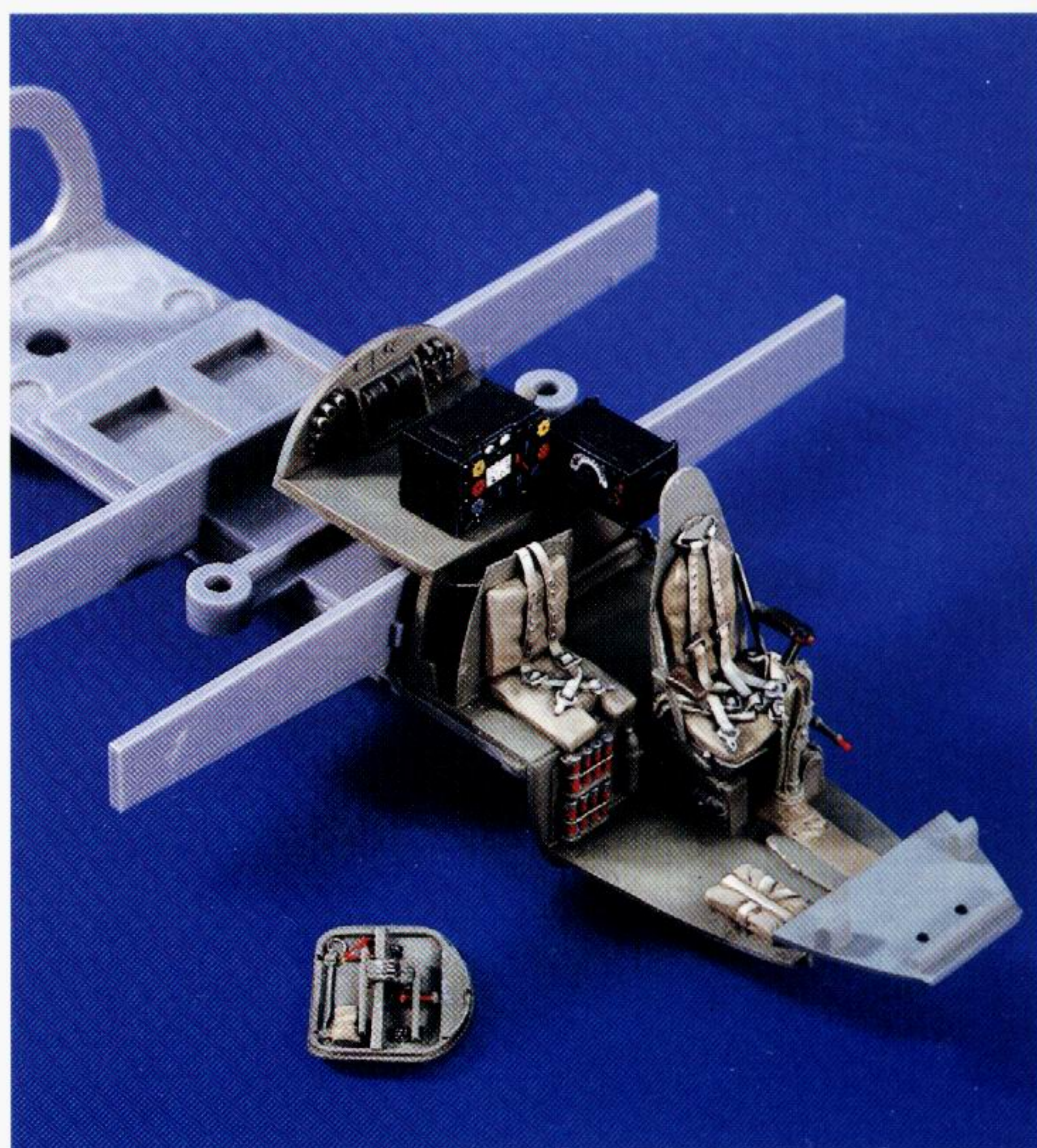
The separate components of the interior after receiving a base coat of Aeromaster British Interior Green.



The very effectively painted instrument panel, ready to be installed. The use of color can really bring out details here.



The final cockpit after painting, ready to be buttoned-up. Note the effectiveness of color in this otherwise drab area.



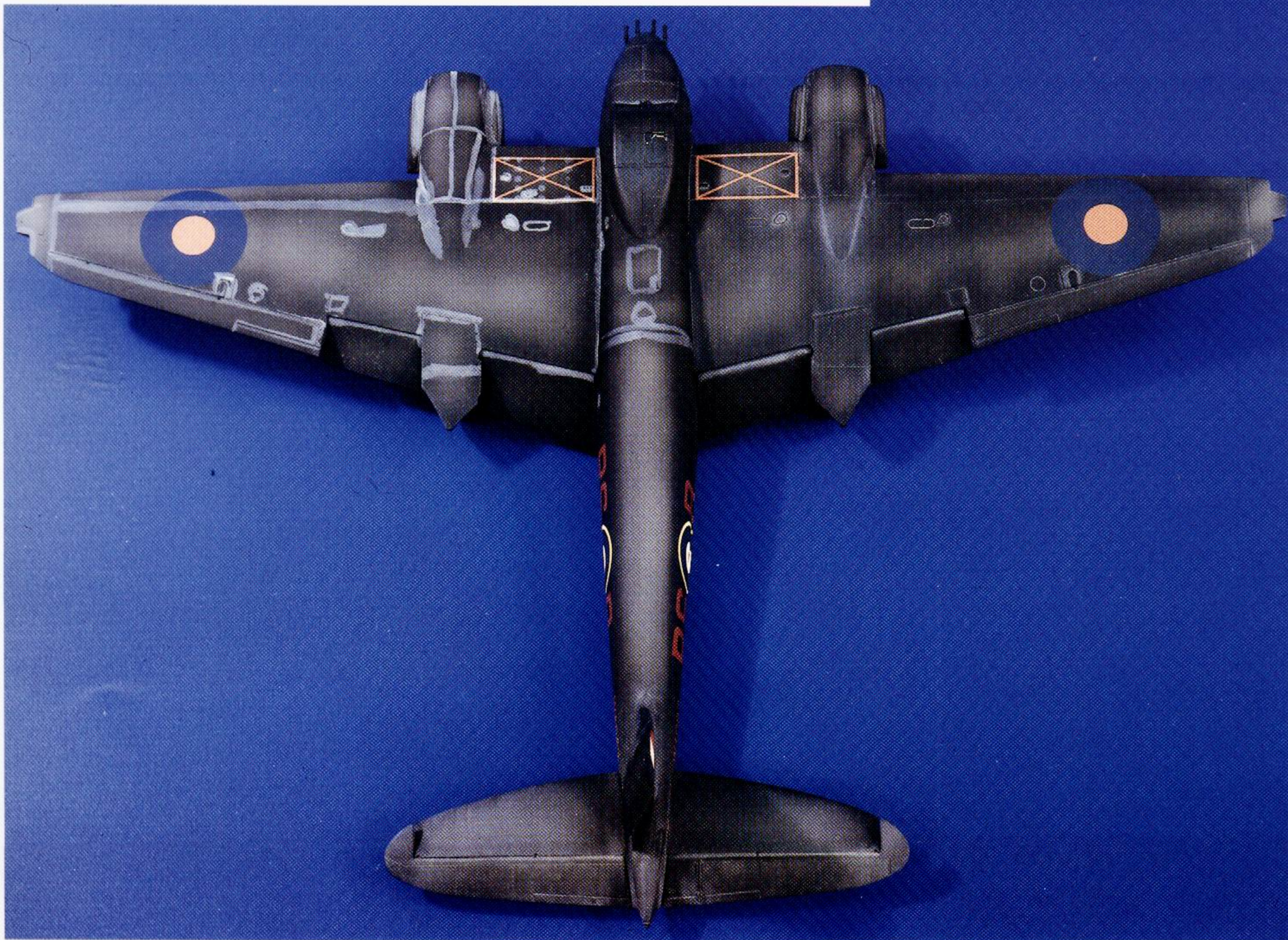
The completed and painted cockpit assembly, ready for installation into the fuselage halves. Again, various colors have been used to help bring out details in this area.



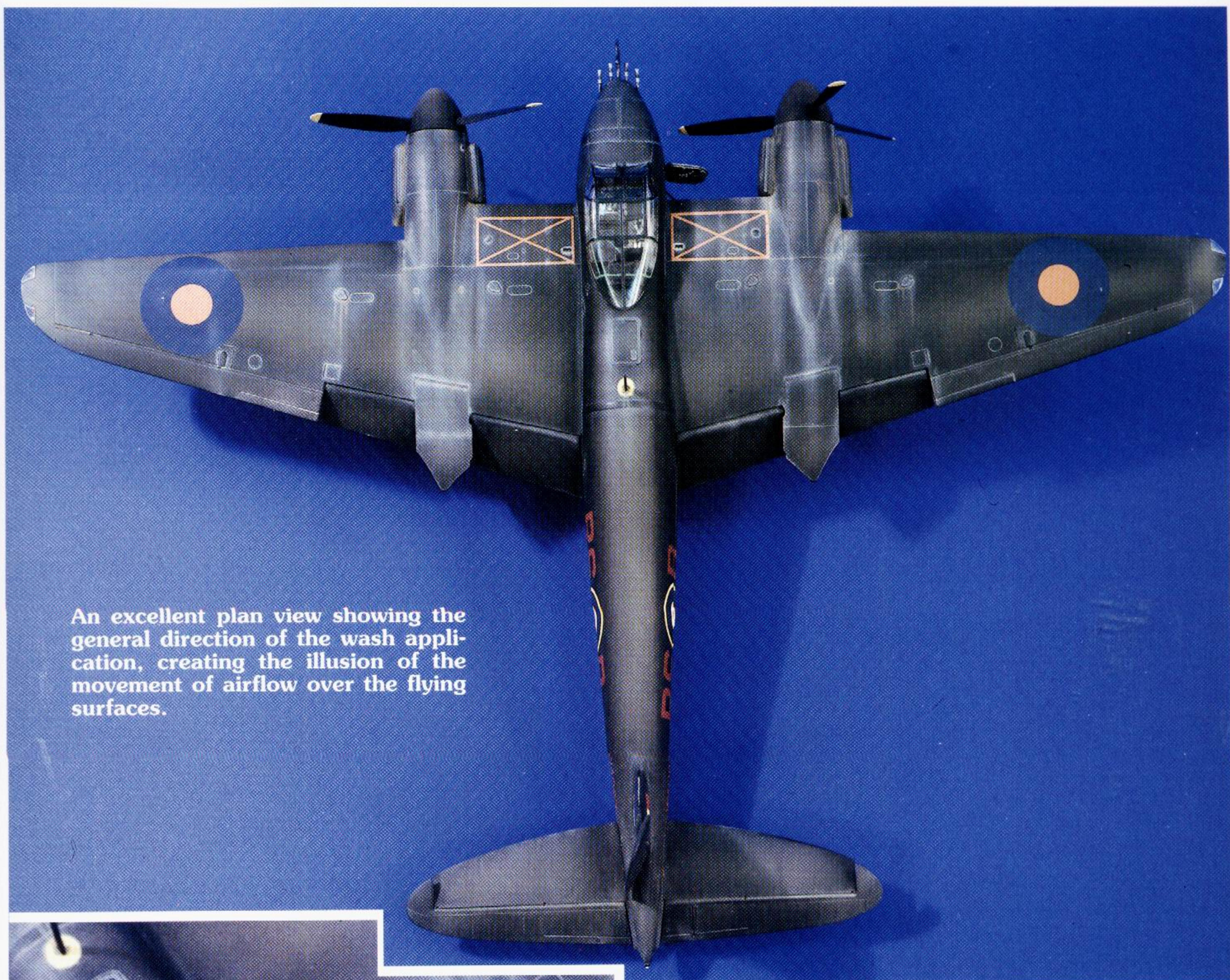


The model after painting and decaling. Note that the "weathering" process has already started in the painting stage with a vague "cloud" pattern. At this point, a clear matte varnish has been applied as a barrier for the upcoming "weathering" process.

Humbrol matte 29 was used as a very effective wash against the dark base color. This is simply wiped off with a clean cotton rag slightly dampened with turpentine.







An excellent plan view showing the general direction of the wash application, creating the illusion of the movement of airflow over the flying surfaces.

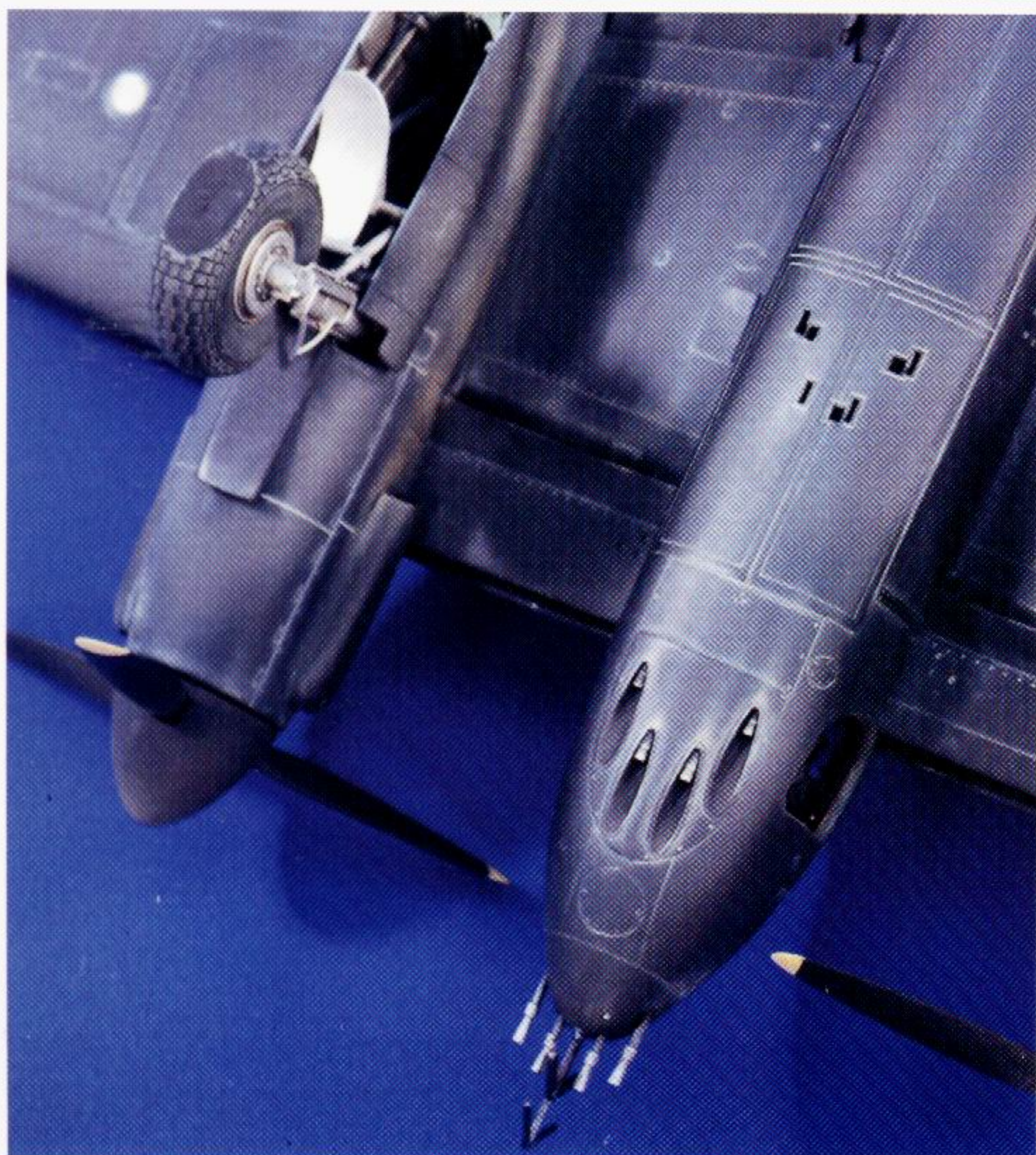


The completed model, showing to great effect the light colors used for "weathering". Note both the inner and outer framing of the canopy.





The lower half of the model received the same "weathering" technique as the upper. Note the "smoke" stains on the horizontal stabilizers behind the Merlin engines.



This lower view reveals the lower "teeth", four Hispano 20mm cannons. Note the sanded down "weighted" tires.



The areas immediately behind the 1,460 hp Merlin engines received a particularly heavy application of the "weathering" process to impart intense heat damage to the painted surface.



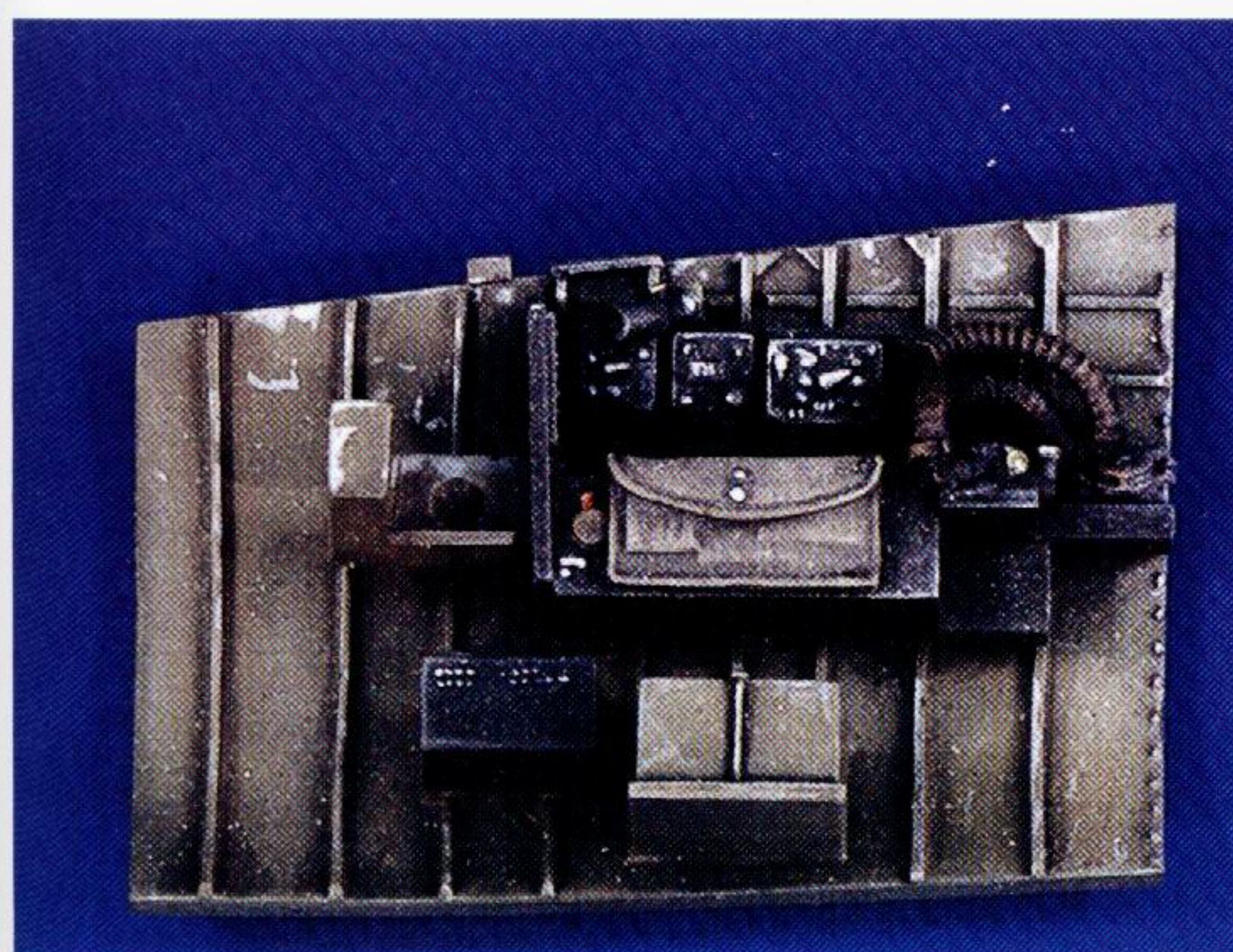
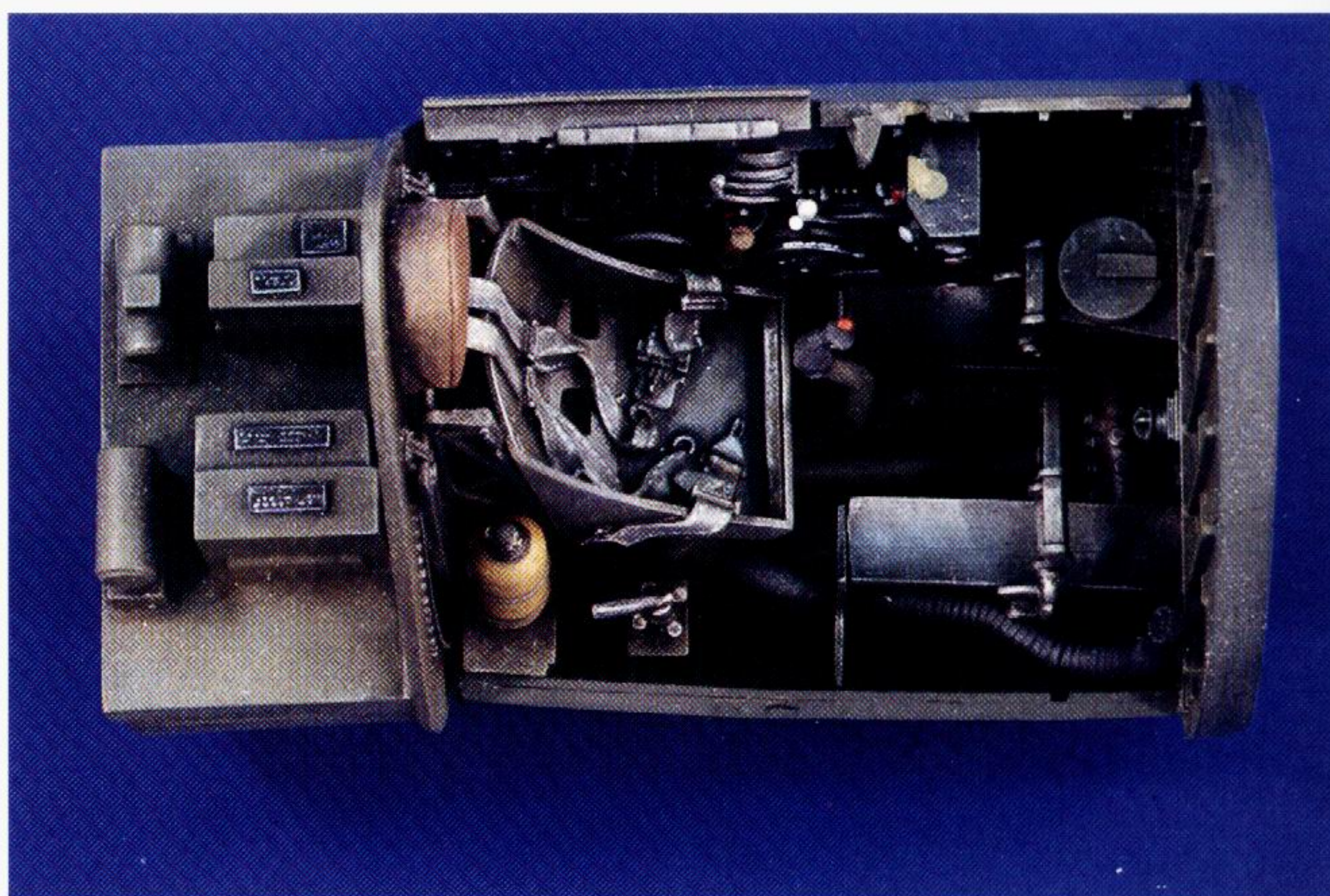
# "The Office"

## VP's 1:32 Scale F4U-1D Corsair Cockpit

### By VP Studios

**T**he VP 1:32 scale Corsair cockpit (#1518) is a model in itself, comprising of no less than 65 separate highly detailed resin parts. Although it was designed to replace the cockpit in the 1:32 Scale Revel kit of the F4U-1D Corsair, it can also be built as a stand-alone model. We employ it here as a study in painting cockpits, as these techniques can be employed in any other cockpit.

After carefully building the cockpit into subassemblies, everything was given a base color mixed from Humbrol Matt Black, Matt 29 Dark Earth, and Matt 105 Marine Green. For highlighting, multiple dry-brush treatments were applied, starting with Humbrol Matt 105 Marine Green, and lighter shades of the same mixed with Yellow. Shading was achieved by blending Raw Umber oils into the corners & recesses. All metal surfaces were carefully trimmed with mixtures of Raw Umber artists oils and Silver Printers ink. Stencilling was picked-out in light grey with a fine brush.

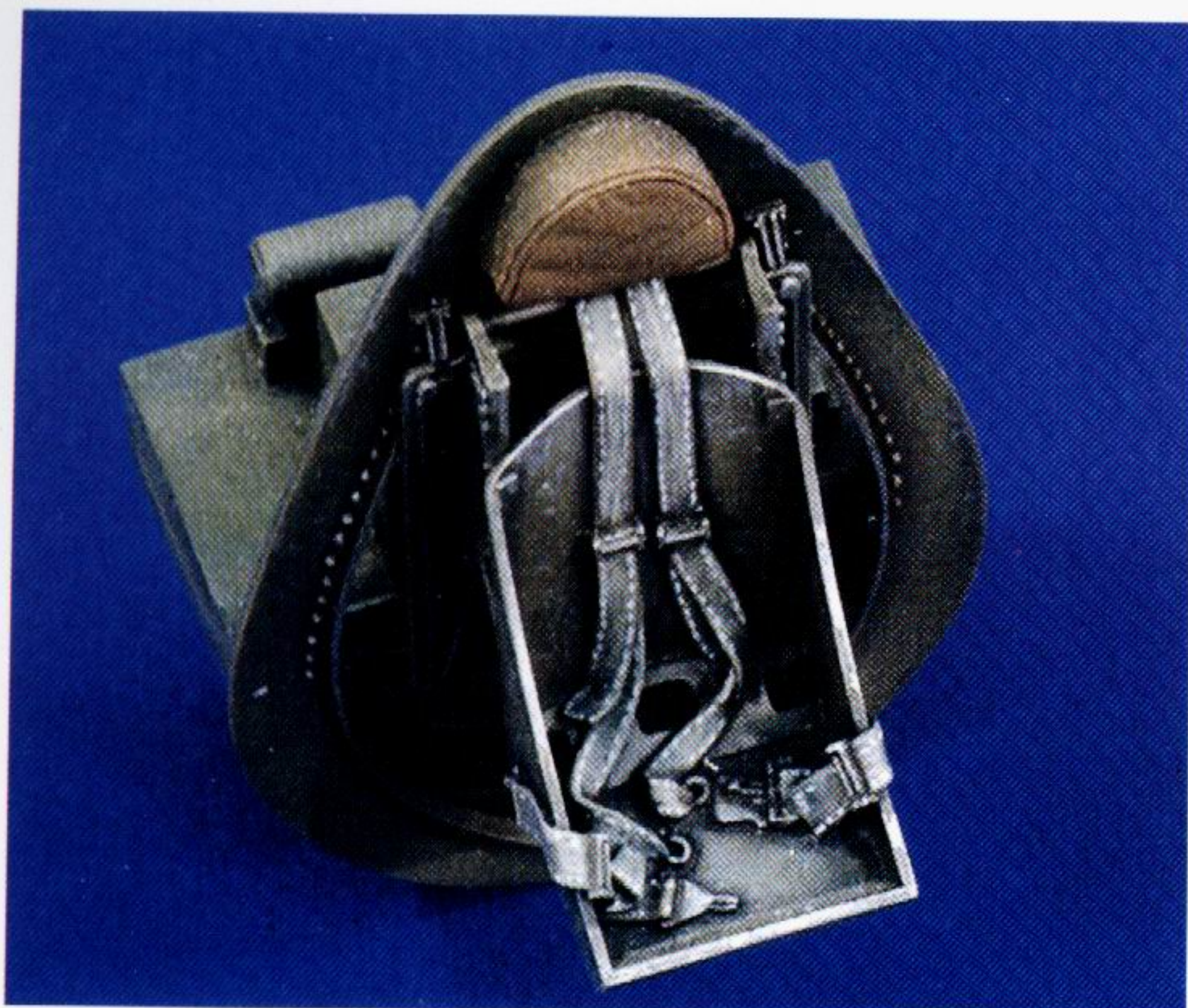


The starboard side-wall contains the radio controls, map case, battery, and oxygen regulator. Reliable reference photos are invaluable in identifying parts and figuring out which colors go where.

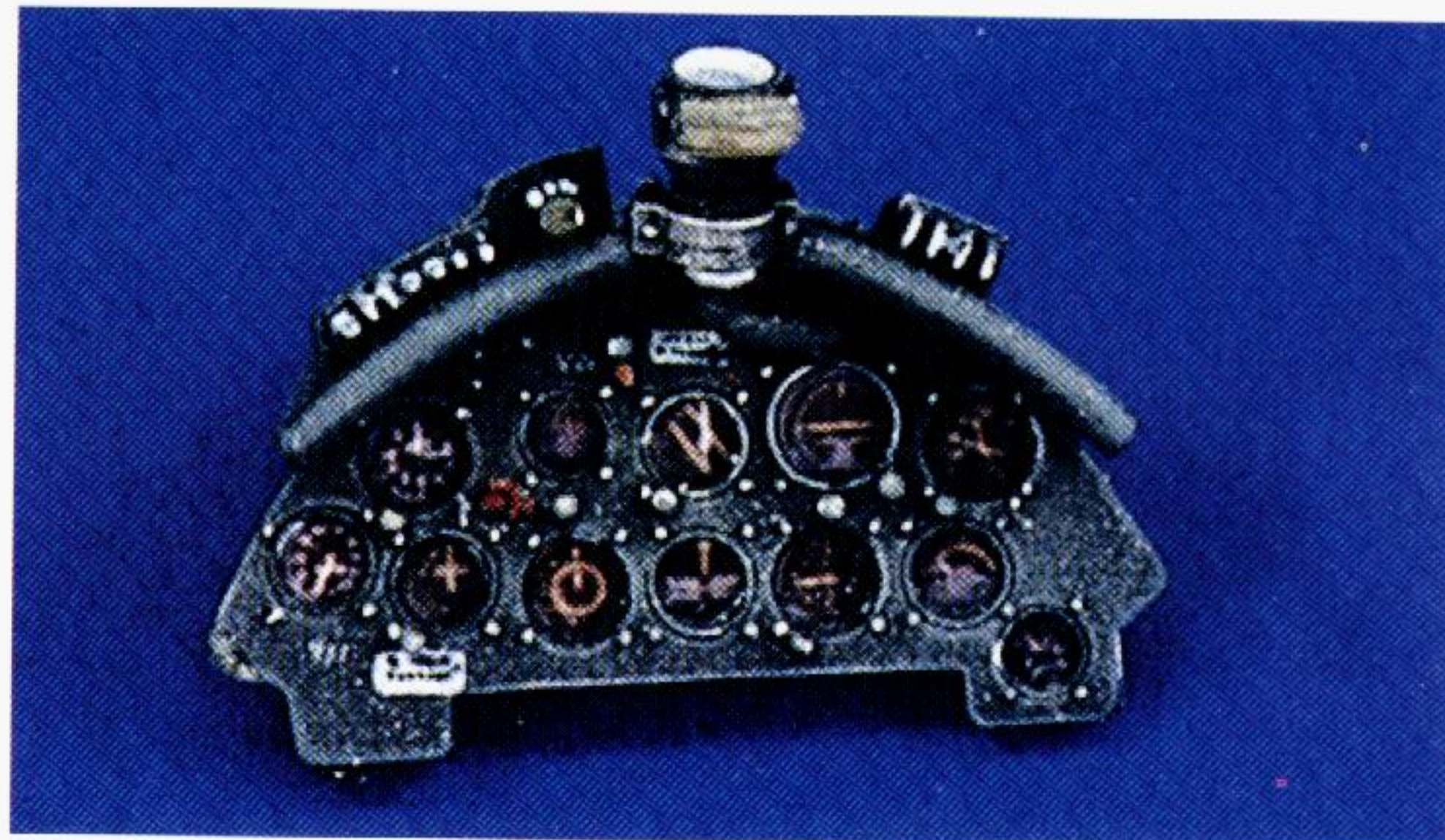


The port side-wall with associated details such as throttle, trim control, fuel tank selector, and CO2 bottles. Splashes of color, such as the Red seen here, can really enhance the appearance of the completed cockpit.

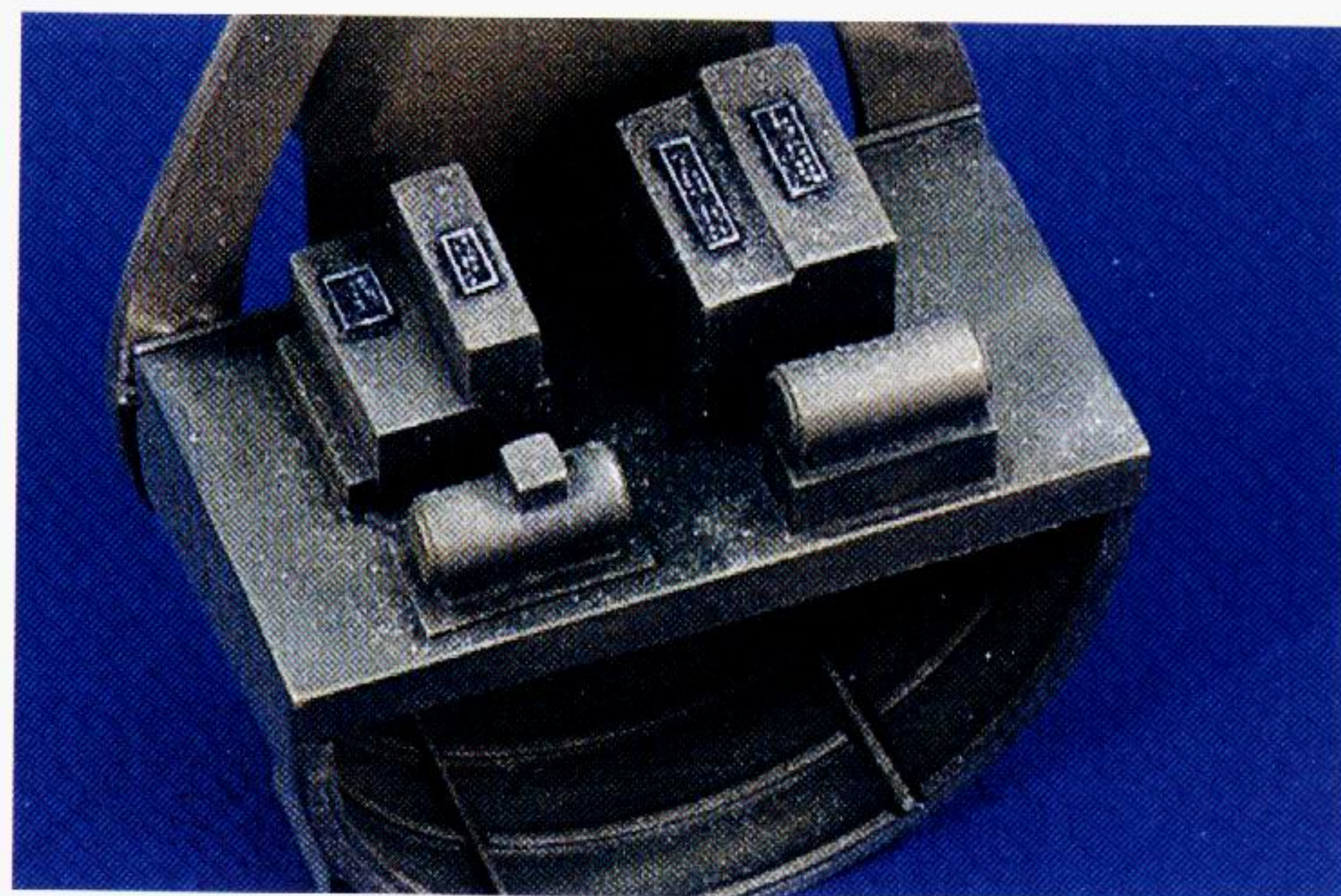




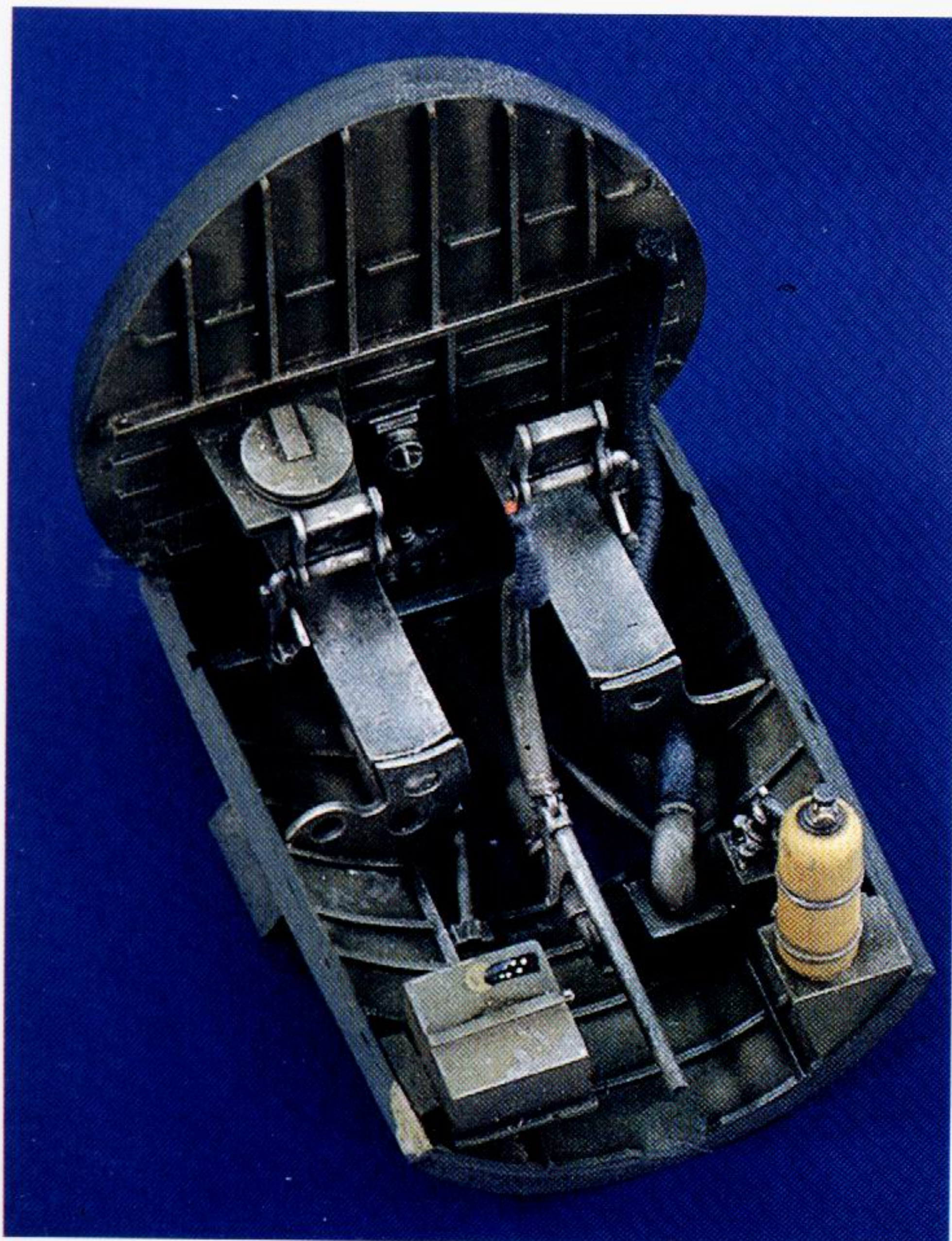
The heavily metallized seat after applying different mixtures of Silver Printer's ink & Raw Umber oils. The leather headrest was first painted Matt Black, followed by dry-brushing with mixtures of Burnt Sienna & Yellow oils. The belts were painted in Humbrol Matt 72 Khaki Drill and shaded with Matt black. The stitching was picked out with a fine brush in an off white color.



The instrument panel was given a base-coat of flat Black, followed by subtle dry-brushing with dark Gray. The instrument dial faces are printed on paper, and "sandwich" a piece of clear acetate to the back of the resin instrument panel.



The radio shelf behind the pilot seat receives extra attention. The placards were first painted with flat Black, then trimmed with stencilling in very light gray.



The "floor" and front bulkhead combine to support the other main components of this model. Note the heavy worn pedal troughs, polished bright by continuous use. The yellow bottle is the pilot's oxygen supply.

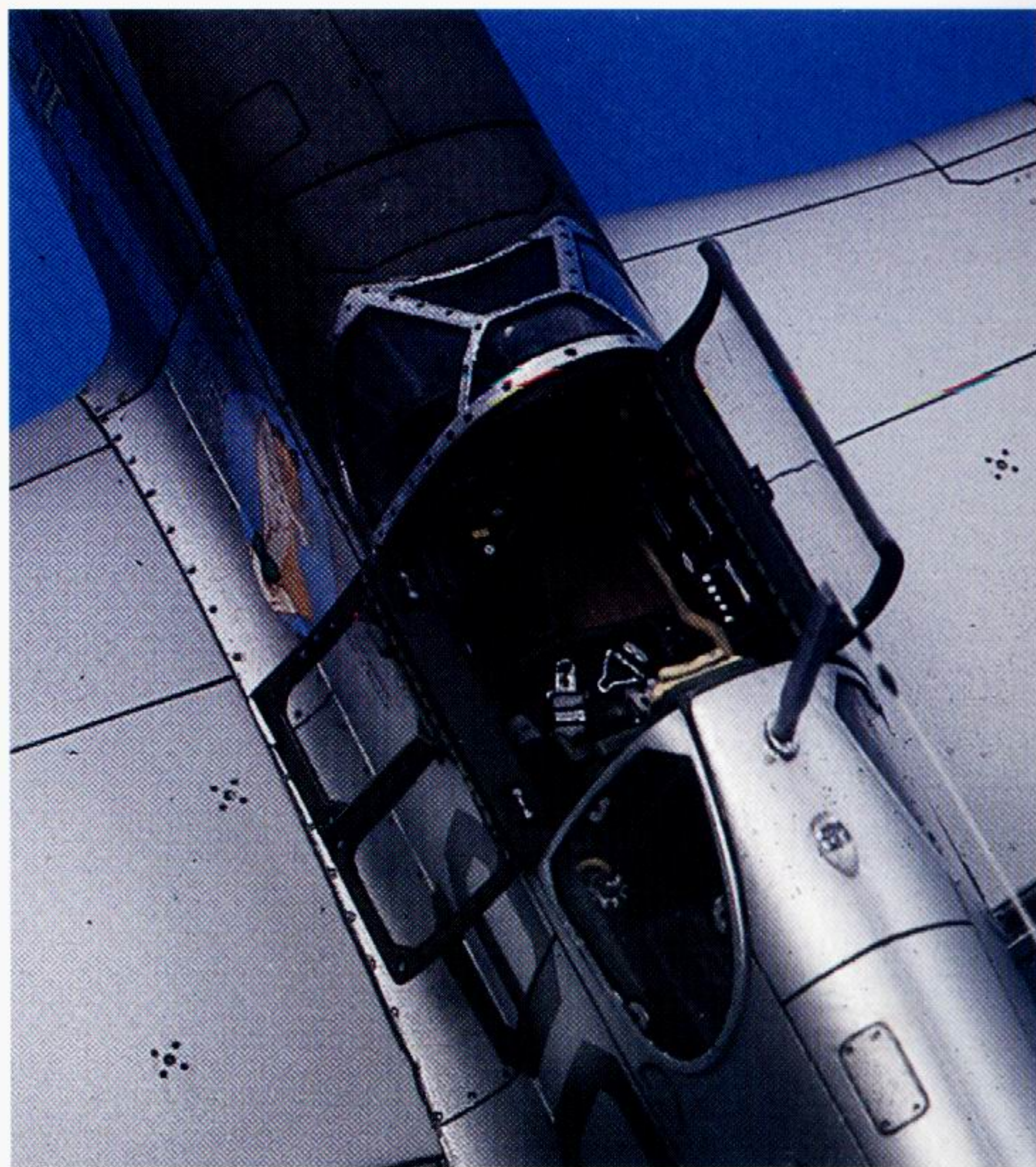


# Tamiya's 1:48 P-51B

## "Mustang"

Model and photos by  
Antonio Morant

It is said that the first time Göring saw P-51's overflying the skies of Berlin, he feared that the war was lost. The Pride of the 8th Air Force, the "Mustang" is without doubt one of the greatest legends in the history of aviation. Curiously, the "Mustang" was developed to meet the requirements of the British government, who were quite satisfied with the design. Soon after, the USAAF discovered the hot new "foreign" fighter and enthusiastically pressed it into service. Its first tests in combat revealed the limitations of the Allison engine P-51A to a maximum altitude of less than 15,000 feet. This was soon remedied with the installation of the Rolls Royce Merlin engine in the P-51B, which increased the speed by more than 50 mph and service ceiling by more than 10,000 feet! The results were spectacular, and with the addition of an 85 gallon fuel cell behind the pilot's seat it became the aircraft that the beleaguered 8th Air Force was looking for to escort its bombers in their dangerous missions over the heart of the Third Reich from England.



The Tamiya cockpit proves to be inaccurate for this particular variant of the "Mustang", so the resin cockpit from VP was used as a replacement.



Bare-metal finishes can be very intimidating to most modelers, but with practice, patience, and bravado, beautiful results can be achieved.



## THE MODEL

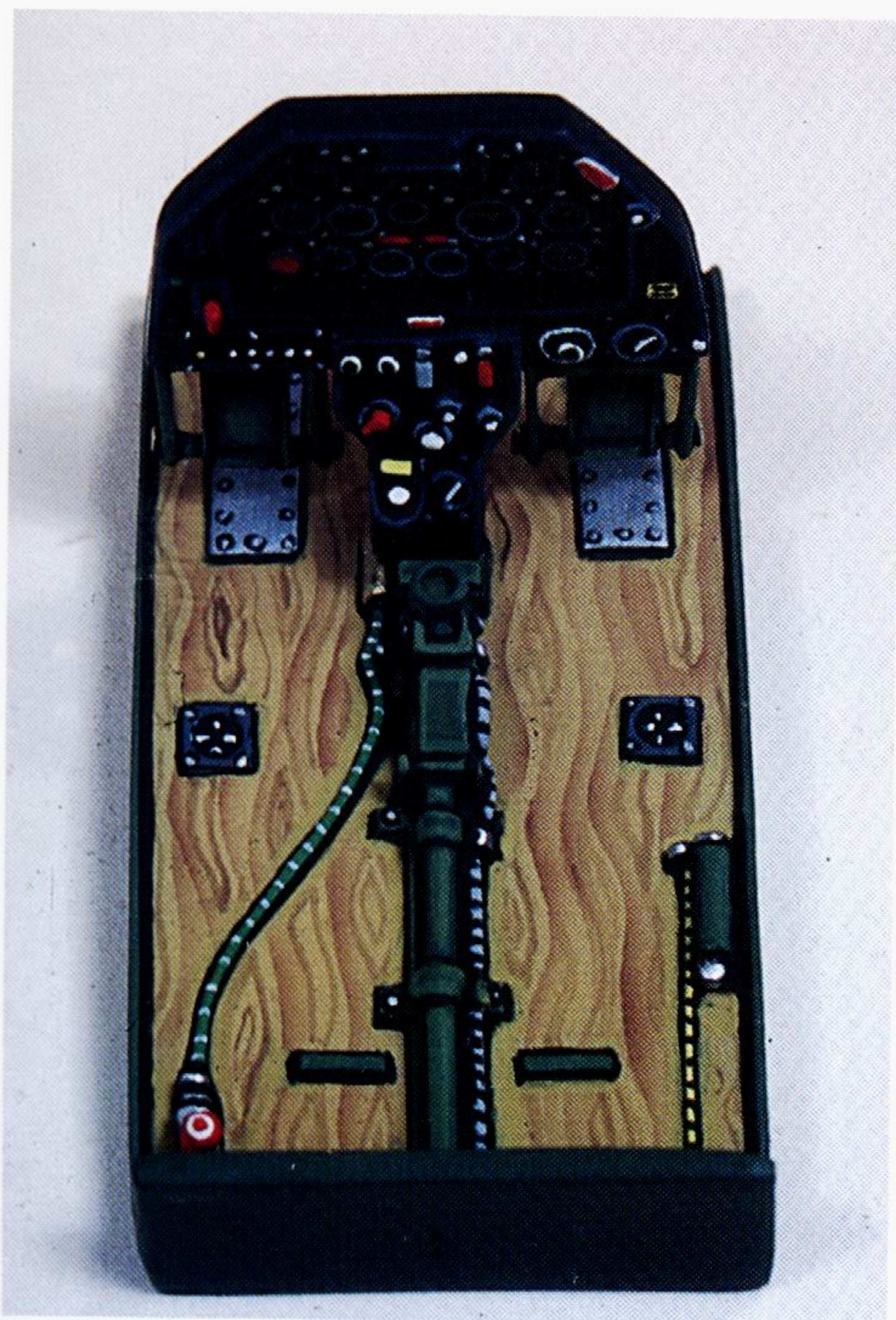
Among the huge variety of plastic kits of the P-51 available, Tamiya stands out for its high quality, crisp details, perfect fit, and ease of assembly. The only areas requiring improvement are the cockpit and undercarriage. After consulting my references, I found that the cockpit inaccurately features the metal floor, while in reality the -B, -C, & -D featured a wooden floor. It was decided to forgo scratchbuilding in favor of using the VP Update Set for the P-51B. When comparing it to my reference materials, it was found to be an accurate representation of the correct cockpit. In addition to this, I used 2 photo-etched parts from Eduard to depict the rudder pedals and central control panel. A battery and radio dynamo were built from scratch, and copper wire was used to improve details. Different diameters of copper wire were combined with telephone wire insulators to create the complex array of tubes, wires, and small cables in the undercarriage bay, and scratchbuilt hydraulic reservoirs were added. Copper wire was also used to replicate the hydraulic brake lines on the landing gear struts. Other extra detailing includes hypodermic needles for the machine gun barrels, heat-formed transparent plastic position lights, and stretched sprue for the canopy locks & hinges.

## PAINTING

Generally, the USAAF "Mustang" wore two types of camouflage during WWII: Olive Drab or Medium Green over Neutral Gray, or in natural metal, with aluminum paint in some areas. The natural metal finish, which became standardized by the middle of the war, was chosen for this model.



The more accurate VP resin cockpit was detailed with photo-etched instrument panel and rudder pedals from Eduard.

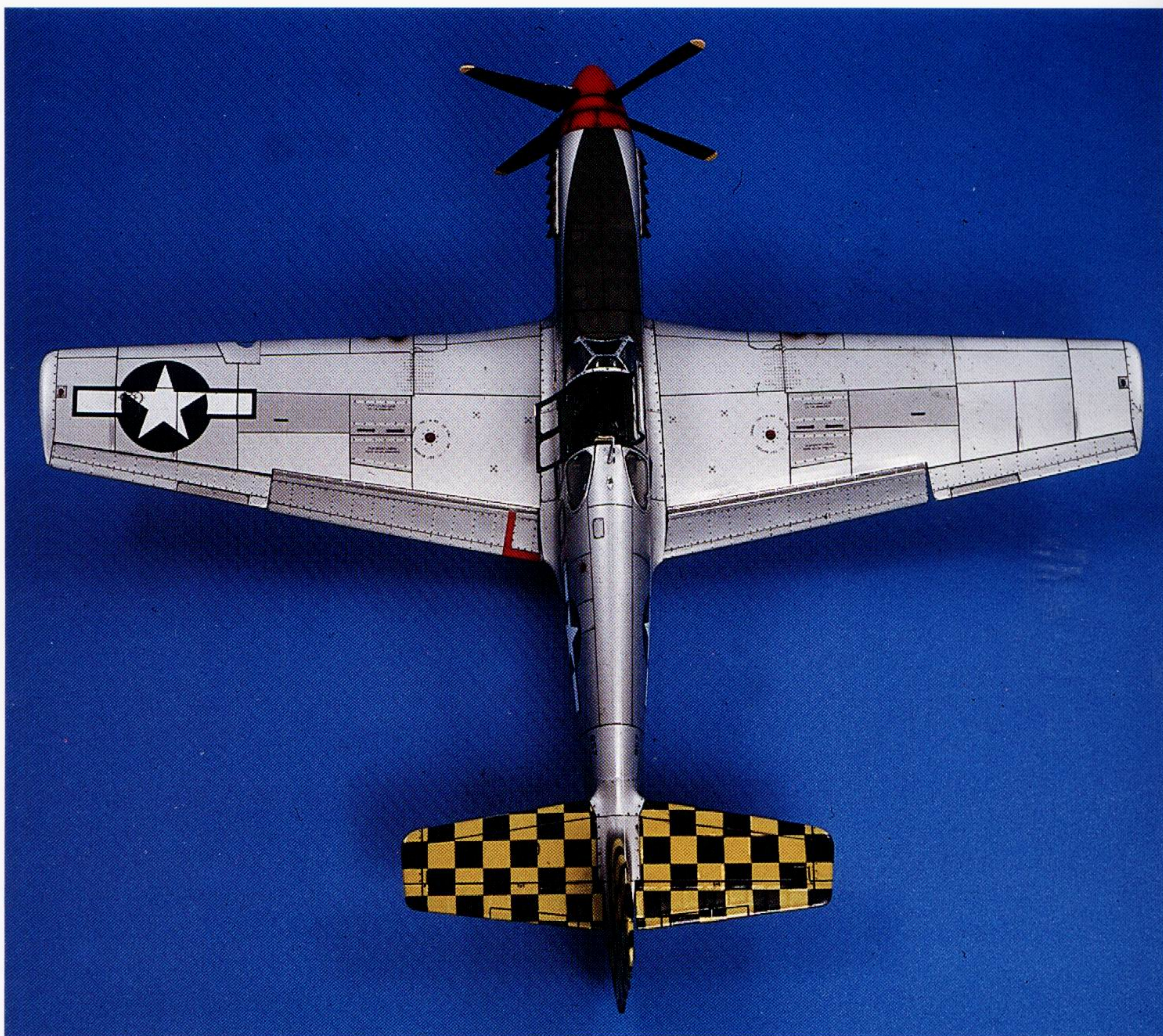


The cockpit was carefully painted with Vallejo acrylics.



The canopy was enhanced by adding small bits of stretched sprue to simulate the canopy hinges & locks.

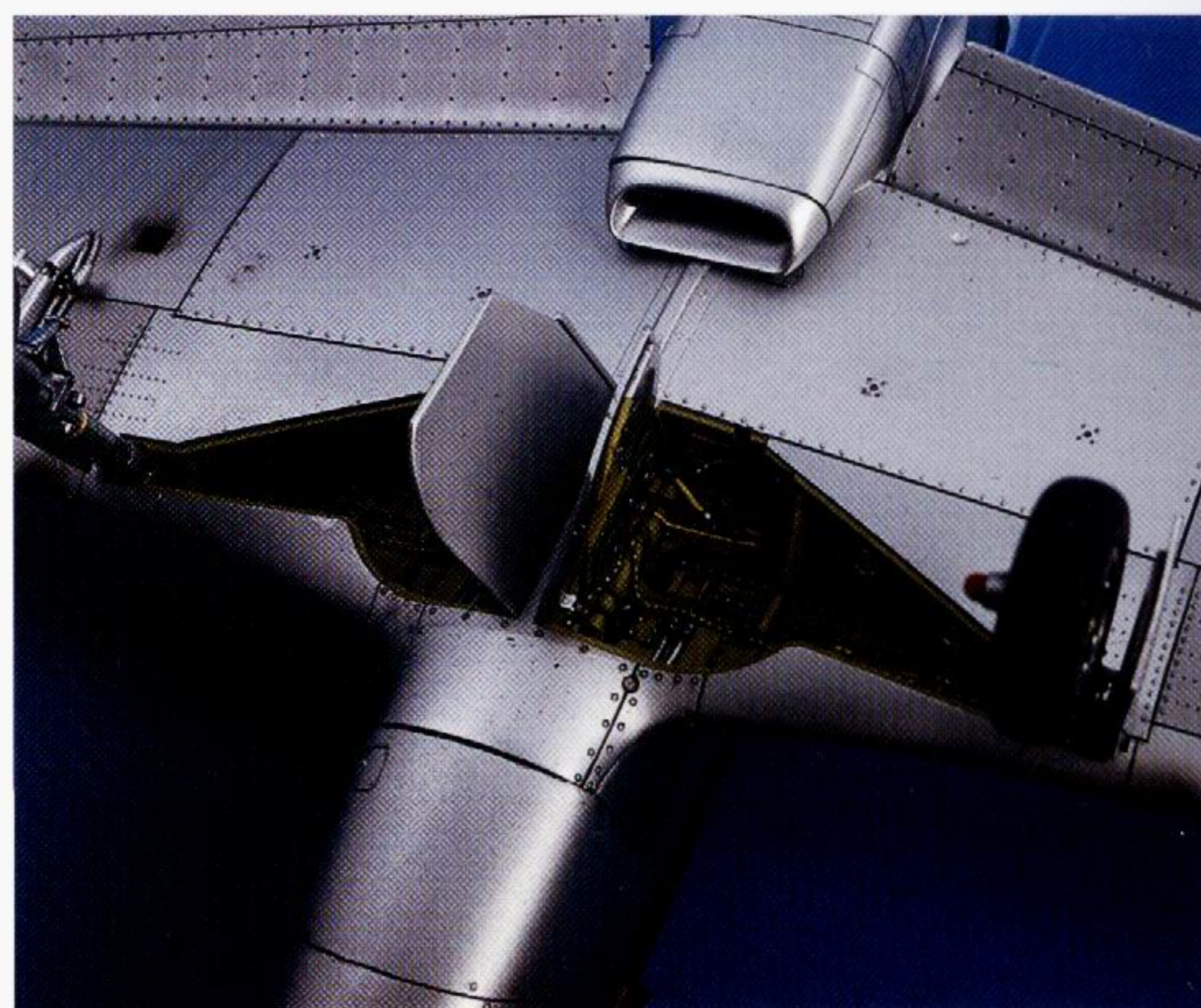




**The careful application of the SNJ system results in a very convincing metal finish.**

Bare metal finishes are a nightmare for many amateurs, because it is not easy to work with silver tones. They tend to be unstable, unpredictable, very difficult to apply, and the results are not very realistic. Among all of the products I have tested until now, I have decided to use the superior SNJ aluminum finish. The pigment is very fine, resulting in a very realistic finish, and most importantly, it can be masked with tape. The first thing to do before applying the metallic paint is to polish the entire surface of the model to a flawless, mirror-finish. Any deviation in the surface from glue or abrasions will shine brightly through the metallic finish, so I polished it with very fine grains of sandpaper, from 1000 to 1400 to 2000.

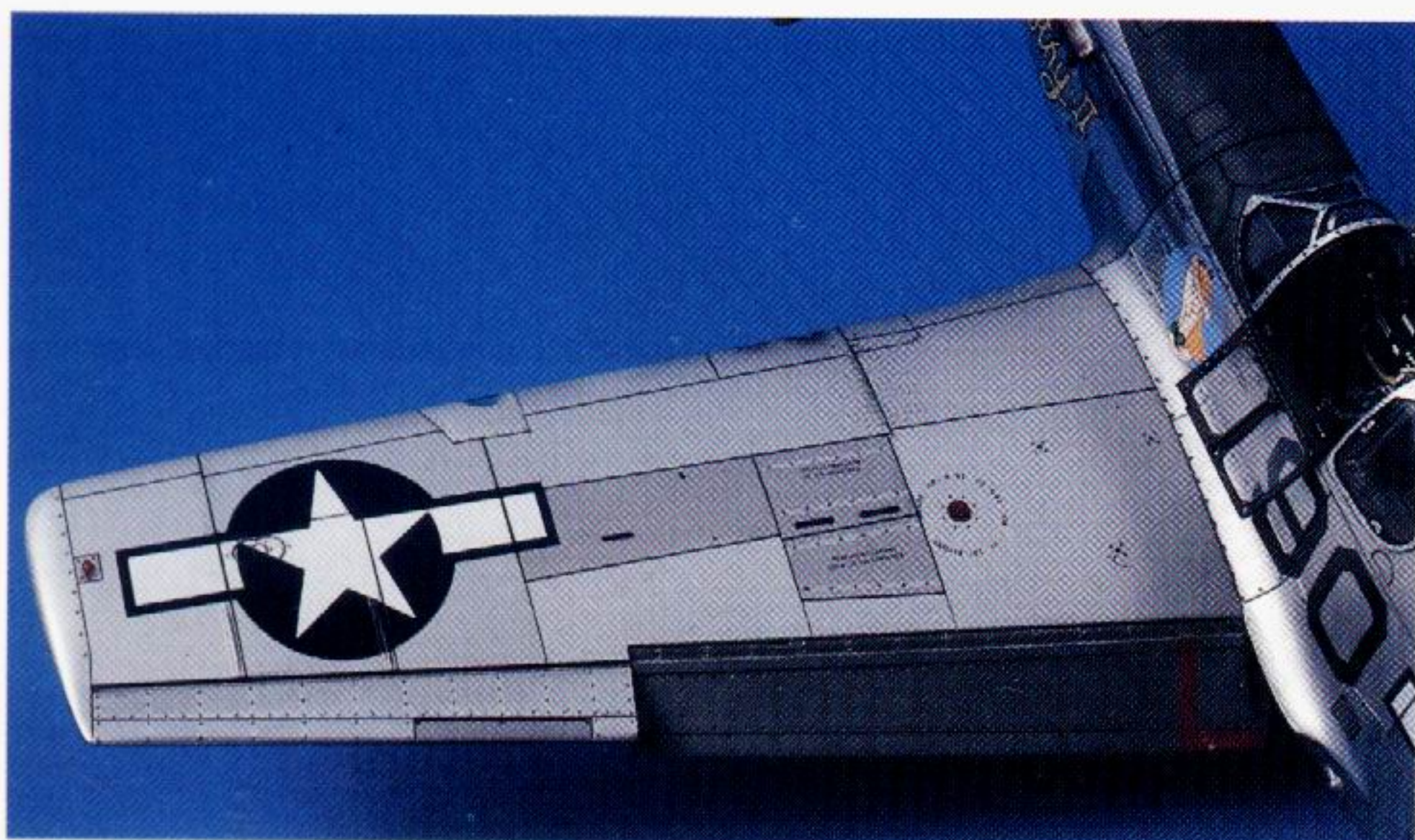
**Various sizes of copper wire were used to replicate the missing details in the undercarriage bays.**



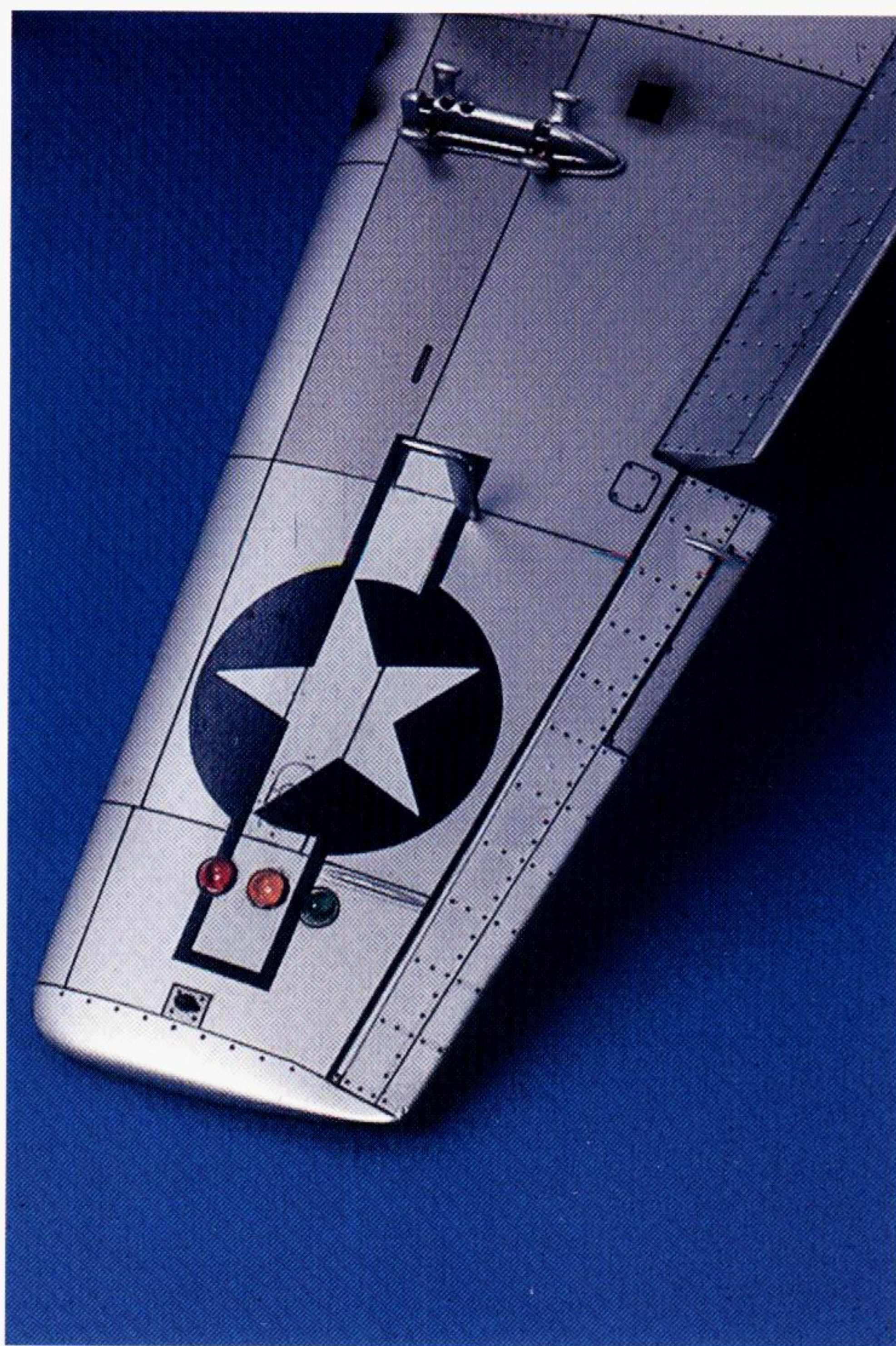


The final treatment is the application of Tamiya plastic polishing compound, which must be gently buffed into the surface with a soft cloth. Before painting, the entire surface is carefully cleaned with alcohol. Painting should be done in very thin coats with an airbrush. The SNJ paint is very thin, and should be airbrushed straight from the bottle. In order to get different metallic tones, small amounts of Tamiya metallic colors (X-11 Chrome Silver and XF-16 Flat Aluminum) were mixed in. After painting, the rivets & panel lines received a wash of Vallejo (Black and Brown mix) diluted with water, which does not attack the metal finish. The last thing to paint was the Olive Drab anti-glare panel and the Red nose & spinner, masked-off with tape. The application of Testors Metallizer sealer finished the job.

The selection of the decorations for my "Mustang" was not an easy task, because there are so many attractive choices. I decided to depict one of the more colorful possibilities from the 15 Air Force 325th Fighter Group, better known as the "Checkertails". The markings for this particular model reflect those worn by the aircraft piloted by Robert M. Barkey from the 319th Fighter Group, which are found on Super Scale decal sheet no.48 462. The quality of these decals is excellent, and when applied with the Micro Set and Micro Sol system, the results are brilliant.



**Different metallic shades were achieved by mixing small amounts of Tamiya metallic colors with the SNJ Aluminum paint.**



**The delicate metallic paint requires a perfectly smooth finish, achieved by polishing with superfine sandpaper and plastic polish.**



**The beautiful Tamiya P-51B is by far the best available in any scale, falling together effortlessly into an accurate model. Even the landing flaps are optional.**





Diluted washes of Vallejo acrylic paints were used to pick-out the panel lines & rivet details.



The ultra-thin Superscale decals conform to the model like paint.



The Red nose and Olive Drab anti-glare panel were air-brushed after masking the bare metal finish with tape.



The markings for the 15th Air Force 325th Fighter Group "Checkertails" are among the most attractive choices of many for this beautiful aircraft.





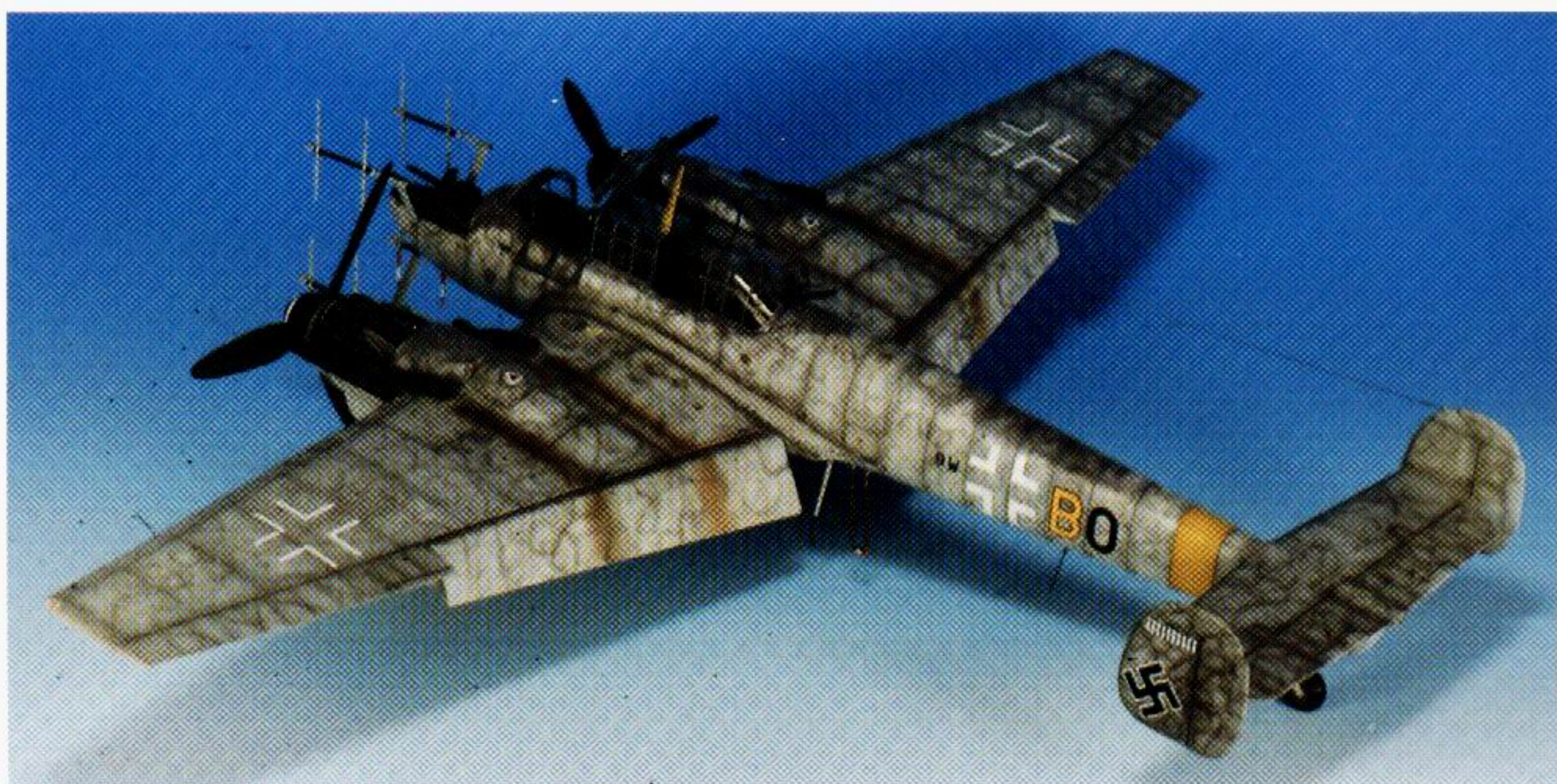
# Pro Modeler 1:48 Messerschmitt Bf 110G-4

Model by Diego Lopez  
Photographs by Luciano Rodríguez

The Pro Modeler 1:48 Messerschmitt Bf 110 is an excellent kit, with such features as hollowed gun muzzles, finely engraved panel lines, and a beautifully detailed cockpit. The kit is very accurate, reproducing all of the contours and dimensions of the real aircraft perfectly. After scrutinizing the kit closely with the aid of very good references, the only noticeable flaw found was the position of the antennae (which are easily corrected). This is understandable, in that even the restored aircraft features this inaccuracy!



The twin-engined Bf 110 by Pro Modeler is an excellent kit, offering plenty of opportunities to add lots of detail, as well as several unique and attractive camouflage options.



The intricate spaghetti camouflage really compliments this beautifully detailed model. Note the correct installation of the radio antenna wire.





**The underside of the model reveals realistic heavy weathering.**

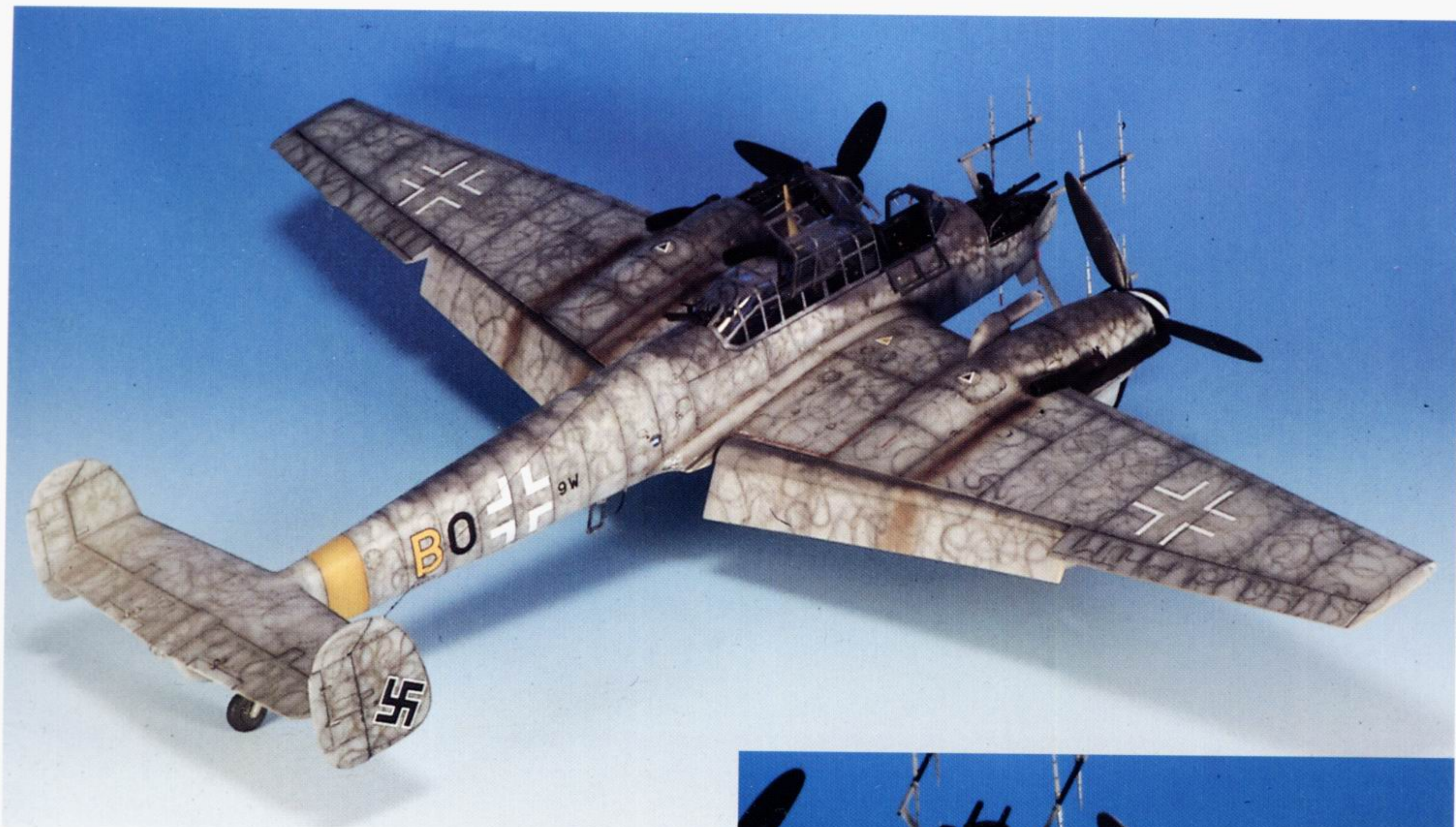
This aircraft is a modelers' dream, presenting such opportunities as a big cockpit, two engines, and attractive camouflage. Armed with abundant documentation, Diego Lopez decided to incorporate as much detail as possible into the kit, utilizing the VP Update Set and Eduard photo-etched set.

Assembly began with the cockpit, where some modifications were necessary in order to incorporate the extra details. The floor section required the removal of the grill and central support behind the seat, which was replaced by items provided by Eduard. The kit seats were replaced by resin items in the VP set, which have seatbelts integrated into the castings. On the cockpit sidewalls, all ducts and wiring was replaced and clamped with lead foil strips, which is very flexible and easy to cut. The oxygen system, radio set, and instrument panel received new dials and switches from Reheat Models, along with extra wiring and some other small details.



**Note the fuel stains blowing back on the drop tanks, a very nice touch.**





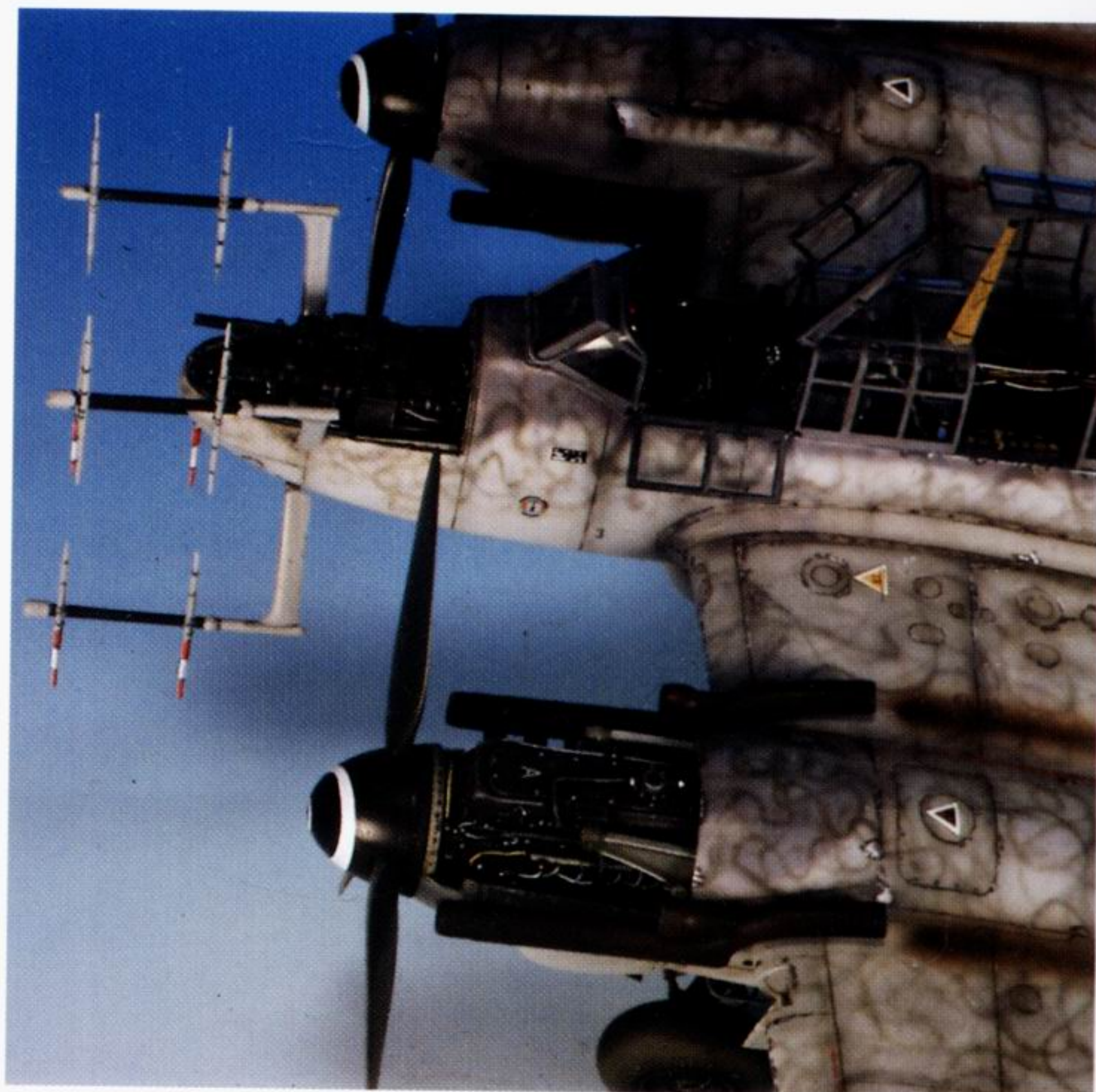
The cockpit was airbrushed with a mixture of Tamiya acrylics to closely match RLM 66 (Black-50%, White-40%, Blue-10%). A Black wash (thinned with paint thinner) was applied to the entire cockpit for depth and contrast. After the wash dried thoroughly, the cockpit was detailed and highlighted with Vallejo acrylic colors. After the cockpit was completed, the parts were carefully assembled and the fuselage halves joined with Micro Weld liquid cement. All gaps were filled with Super Glue, and any panel lines lost were re-engraved using a fine scribe and a VP razor saw. The nose gun bay was carefully cut off and replaced by the resin items from VP. Careful adjustments and test-fitting were required in order to ensure a proper fit. Extra wiring was added for the air and electrical system.

For the engine nacelles, the internal reinforcements of the landing gear bays were carefully removed from the plastic kit and replaced by the resin detail parts from VP. Some ejection pin marks inside needed to be filled before adding any internal details. The radiators were detailed with photo-etched parts from Eduard and some very fine acupuncture needles. The port engine cover was carefully cut away in order to display the engine, which was detailed with wiring. The landing gear received extra wiring as well.



The wings required extra work in order to drop the flaps. After cutting away the molded-in flaps, the interior surface was built-up with 0.3mm plastic sheet, which was carefully curved by slipping it over the edge of a table. Before cementing the wings to the fuselage, the lower fuselage around the ventral guns required some reduction in order to achieve a perfect fit. The external drop tanks were replaced by the more accurate items from Hi Tech, which were installed after painting.





## PAINTING

When painting a scale model, if there is one thing that Mr. Lopez doesn't like, it is when it looks like a toy. This is not realistic, and it is only necessary to look at some wartime pictures, or even current aircraft, to see evidence of weathering such as hydraulic fluid, gunpowder, engine exhaust soot, dust, fuel, etc. Another problem is the RLM colors and how to interpret them in the old black & white photos. On these colors, especially the ones used late in the war, there are a multitude of interpretations, and NOBODY possesses the absolute truth! At the end of the war, new colors appeared, such as 81, 82, 83, or the mysterious 84. Also, the lack of some paints required the use of some older colors such as 70 and 71, or a combination among them. Then there were unpainted surfaces, primers, and don't forget the touch-ups. This could sometimes result in very messy, if not colorful, camouflage schemes.



The weathering includes dirty panel lines, fine paint chipping, and heavy exhaust staining.

The cockpit interior was painted using Vallejo acrylics.

The addition of the VP Update Set provides lots of extra detailing to this already beautiful kit. Note the extra wiring and details added to the cockpit, guns, and engine.



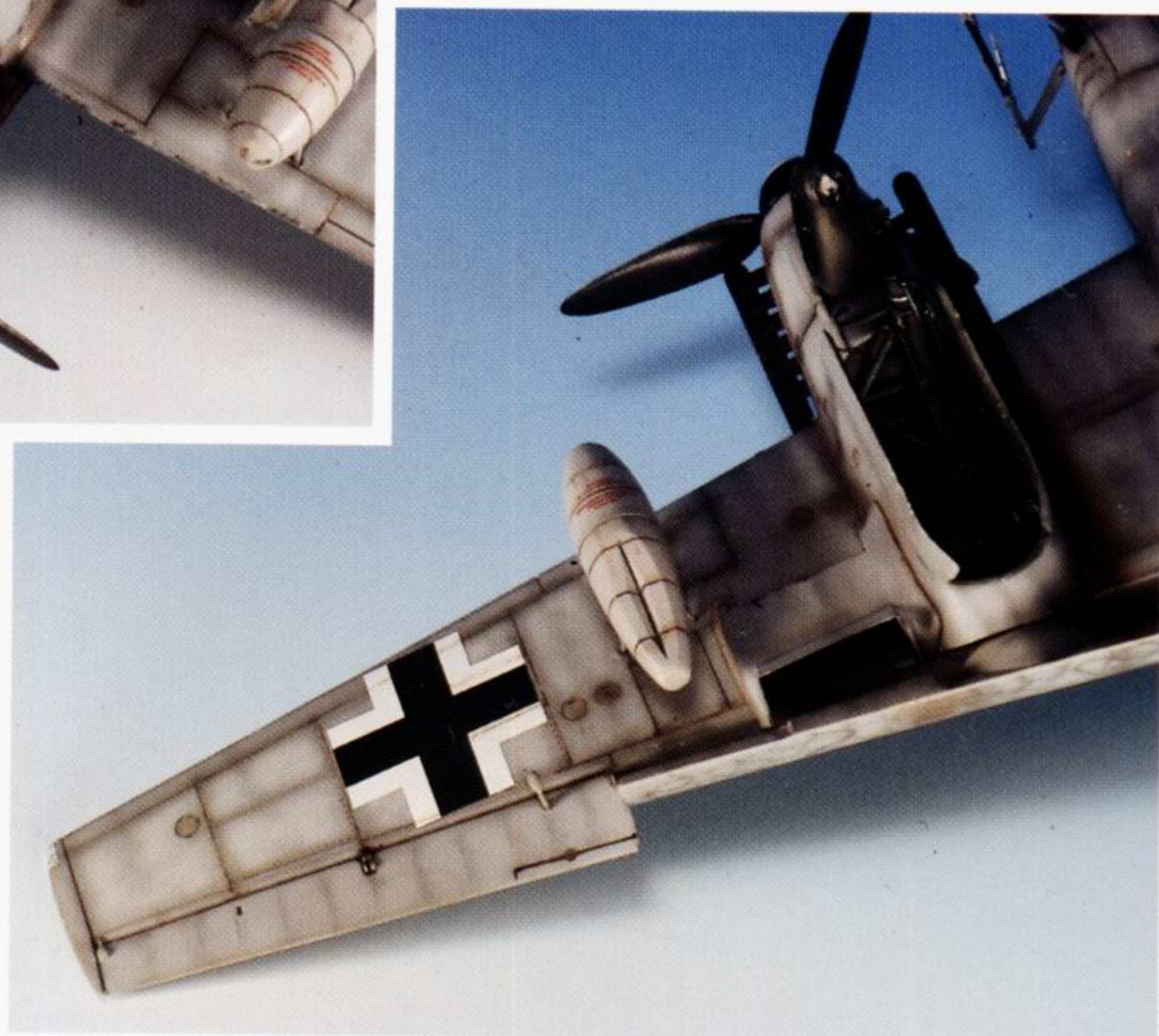


Due to its proximity to the ground, the underside was heavily weathered. Propwash and ground crew cause the undersides to get extremely dirty in wartime.

This view provides a look into the highly detailed wheel wells and landing gear struts, as well as the radiator and flap.

For this model, a scheme illustrated in a decal sheet offered by Aeromaster was chosen. The color scheme consists of overall RLM 76 with 74 and 75 spaghetti camouflage. Before painting, Diego referred to his reference photos, where he found images of this aircraft revealing that around the engine areas appears RLM 75 over 76 overlooked by Aeromaster, and the Spaghetti in RLM 74, or possible RLM 71.

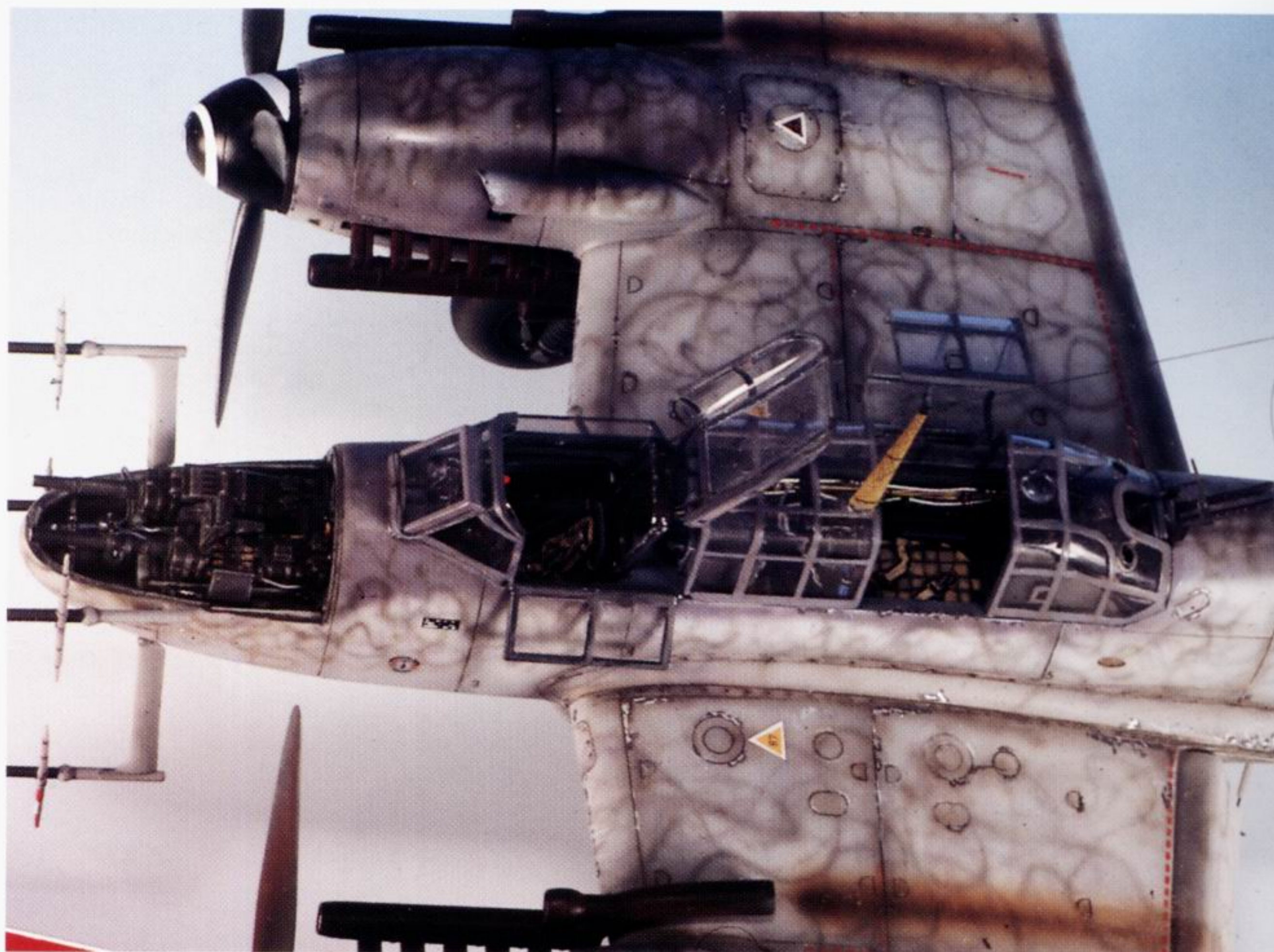
The camouflage looks very complicated, but really only needs a little practice before painting the model. A simple gravity-feed airbrush and a cheap compressor were used to airbrush Gunze Sangio acrylic colors. In order to get the best results, it is recommended to use the same brand of thinner to thin the paints for airbrushing. RLM 76 was first painted overall, then RLM 75 was painted over the engines and around the nose and cockpit.



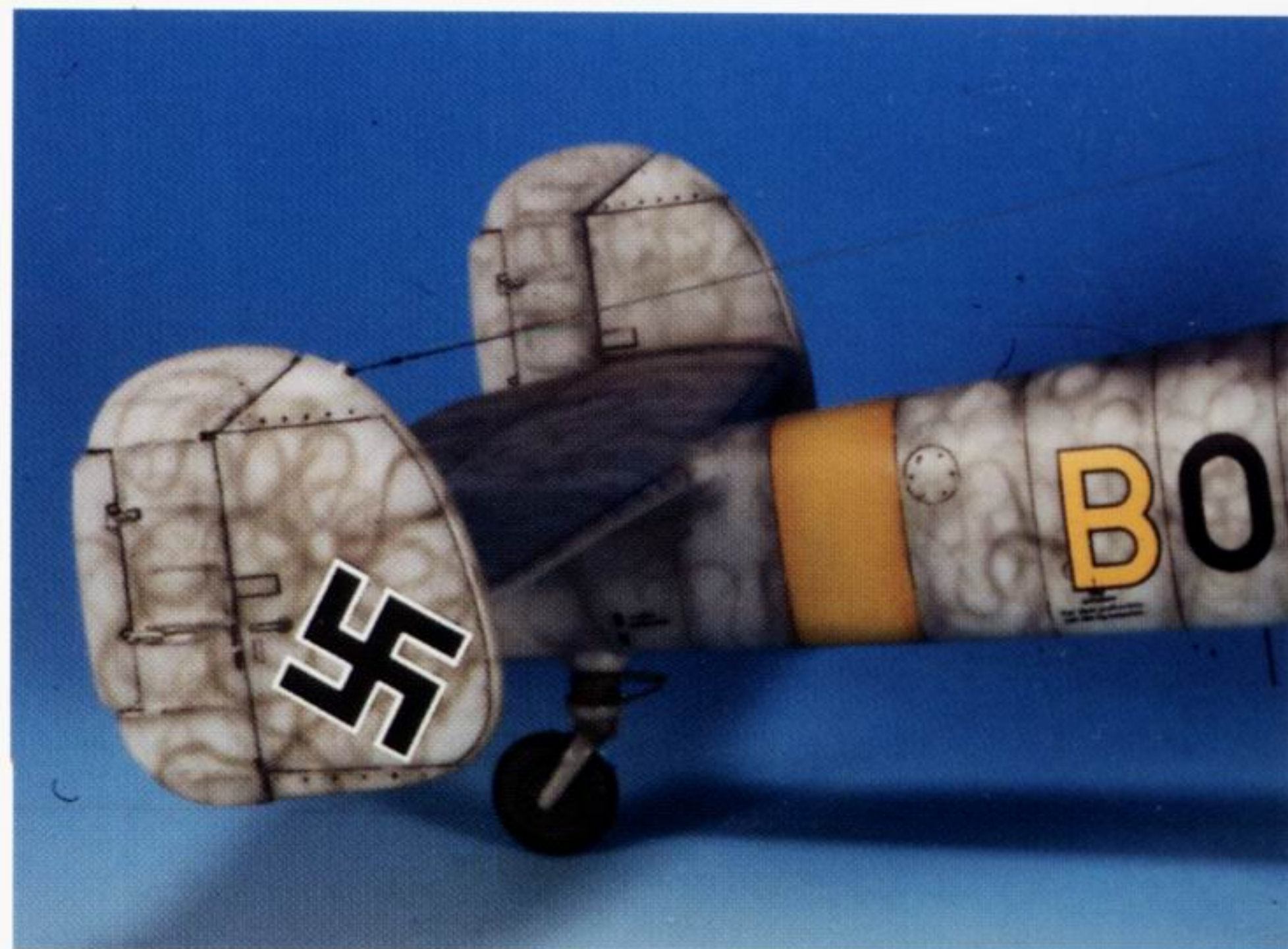


Although the cockpit utilizes parts from VP and Eduard, plenty of extra detailing was added from scratch as well.

The same colors were lightened and darkened to add the highlights and shadows. Finally, RLM 74 was thinned and painted with very low pressure for the spaghetti camouflage. Next, a couple of coats of Tamiya acrylic gloss were applied, and allowed to dry thoroughly. A mixture of Black and Sienna oils thinned with paint thinner was used as a wash to accentuate the panel lines. After the wash dried completely, another coat of gloss was applied to prepare for the decals, which have all been carefully trimmed to eliminate any remaining transparent film. After the decals dried completely, exhaust stains and other small details were added before applying a final coat of Humbrol clear satin. Assembly was finished by adding the antennae and drop-tanks.



The resin nose guns and port engine received extra detailing with wiring.



This close-up provides a clear view of the very fine airbrushing. The markings come from Aeromaster.



This model has been painted very intricately. Note the subtle paint chipping along the wing leading edges, and the stencilling on the tires.



# "Marge"

USAAF Top Ace Richard Bong's P-38J Lightning

By Rodrigo Navarro  
Photos by Luciano Rodriguez

My special thanks to Marge Bong Drucker and to the Richard Ira Bong Heritage Center for their invaluable cooperation, and for her signed portrait.



Decals from a Monogram kit were used for the personal markings of Bong's plane and the tally scoreboard below the cockpit. The "Marge" portrait decal was reduced from a photo, later retouched with soft tones of Vallejo acrylics. The name was hand-painted in red.

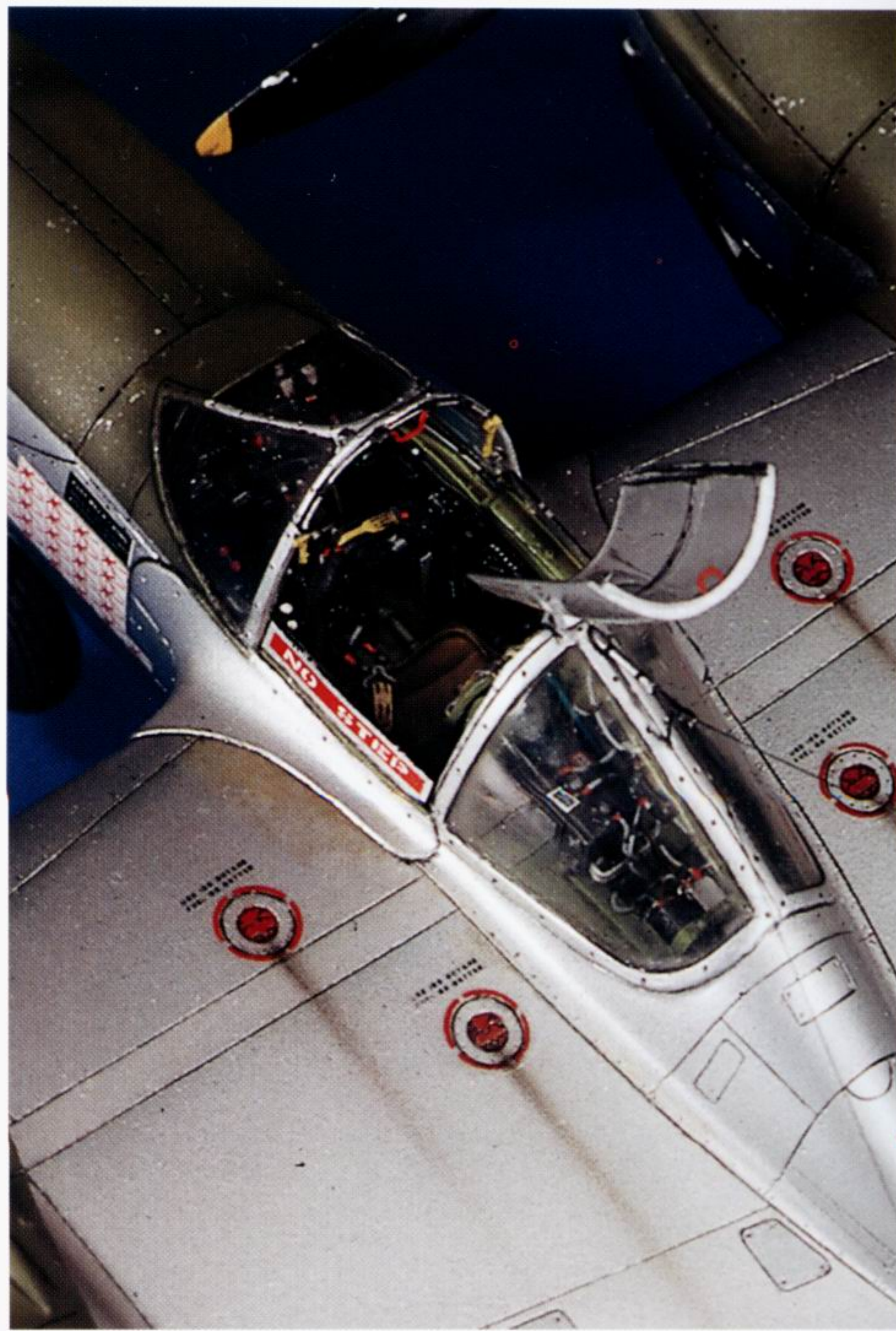


P-38s carried a variety of very attractive camouflage & markings to choose from, but from the beginning I knew that this kit would wear the colors of "Marge", piloted by Richard Bong. I believe that this is maybe the most representative example of this aircraft, because at it's controls, this pilot became the USAAF top ace with forty victories over enemy planes during WWII, resulting in him being awarded the Congressional Medal of Honor.

Although Bong flew several P-38's nicknamed "Marge", most of those that we see in pictures of the time represent planes used for propaganda tours in the USA and were not flown in combat. The Lightning reproduced here is Serial No. 2103993, based on Cape Gloucester in the south Pacific towards the middle of 1944, in which he got most of his victories. One of the external differences between this plane and those used for propaganda was that in the latter, the portrait of "Marge" on the nose was most likely reproduced in black & white.

This kit is the Hasegawa 1:48 P-38J, which is generally a good scale model, although it presents some fit problems in the engines. It is an accurately detailed model, but I decided to add some extra details based on the VP Update Set, Eduard photo-etch set, and True details resin wheels.

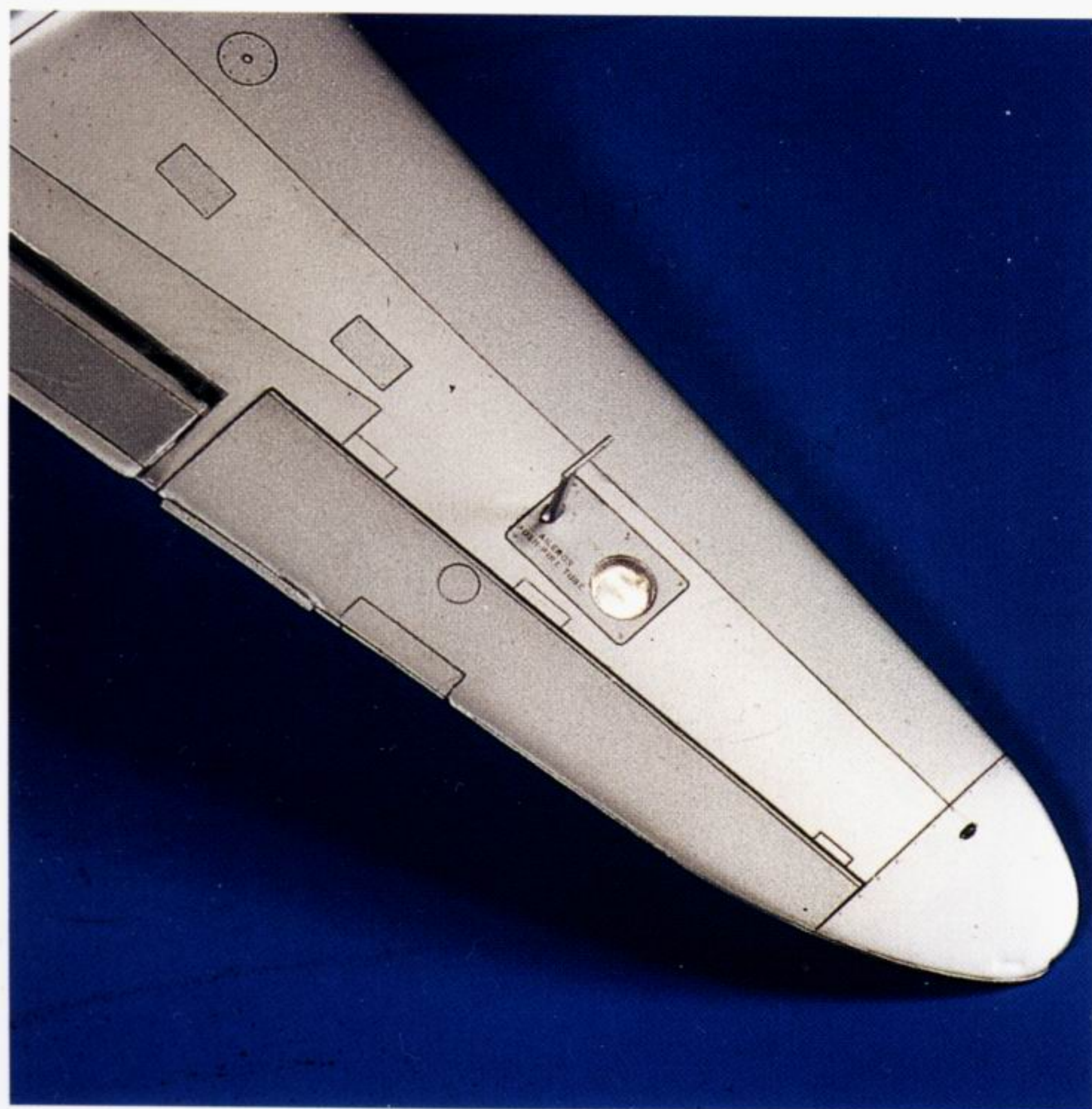
**The interior is painted with Humbrol (FS 34151 U.S. Interior Green). After painting the base color, it was shaded with Vallejo Burnt Umber, followed by highlighting with a mixture of the base color & Yellow.**







The exhaust stains & fuel spills were simulated by controlled application of pastels and airbrushed ink.



The metal finish was achieved by airbrushing Tamiya lacquer, followed by undiluted TS-17 Gloss Aluminum. This results in a realistic finish, and different mixtures with Metallizer colors create different tones for the separate panels.



After painting the panel lines with dark grey acrylics, they were shaded with Holbein transparent grey ink.





The drum for the coolant system for the propeller can be seen in front of the engine. It was made by heat-forming Evergreen tubing.



The Allison engine was detailed with Evergreen strip & rod, lead foil, and copper & steel wire.



Model Master Metallizers and Vallejo acrylic colors were used to detail paint the various hoses & cables. Pastels were used to simulate dirt, grime, & soot around the engine details.



Matt Black was used as a base color for the engine, which was highlighted with different shades of Steel, Burnt Metal, and Aluminum from Model Master Metallizers.





Perfect for this purpose, Vallejo acrylic colors were used for detail painting in the cockpit.



The interior of the cockpit was completely reconstructed using parts from VP, Eduard, and materials such as styrene, lead foil, and copper wire. Here we can see the completely scratch-built radios and gunsight under the improved canopy.



Kits Used:  
Hasegawa #09101 P-38J Lightning  
Eduard # 48104 Photo-etch set  
True Details # 48028 resin wheels  
VP #0892 P-38 Detail Set





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