Special IPMS/USA Nationals Issue

THE STYRENE SHEET

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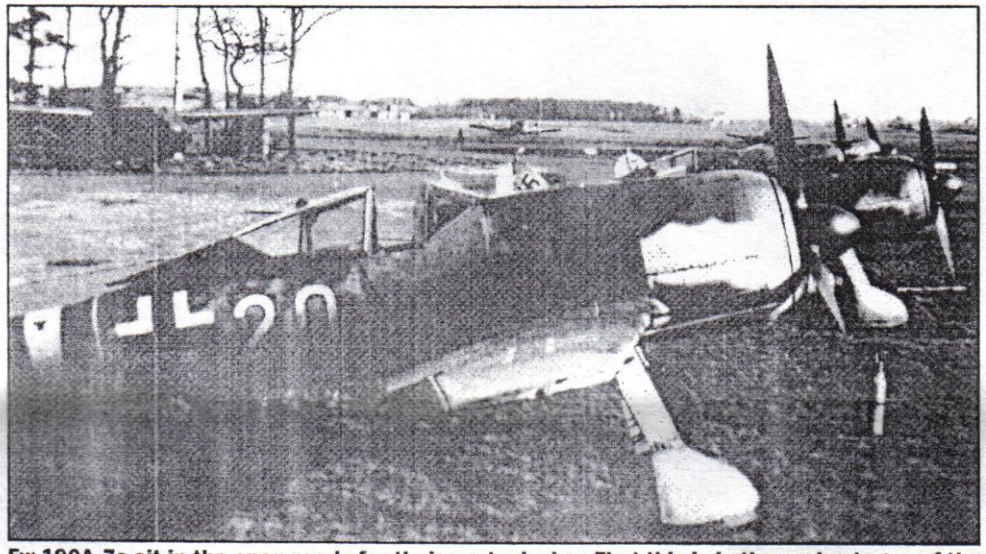
Desperate defender: Fw 190A-7 in 1:72

By Roy Sutherland

The Fall of 1943 was a dark time for Germany. It was becoming painfully obvious that the tide of the war was changing. With the growing pressure of the U.S. daylight bombing offensive and the nightly pounding from RAF Bomber Command bringing the War deeper and deeper into the Homeland, the Luftwaffe was hard pressed to find an effective response. The raids were growing in size and intensity almost every day. The *Fortresses* and *Liberators* bristled with 50 caliber guns, and the bomber box formations made attacking these formations an even more formidable prospect. At this time, P-51s, with their new long range capabilities, were beginning to escort the bomber formations much farther into Germany, making interception even more dangerous.



Fw 190A-7s sit in the open ready for their next mission. That this is in the early stages of the European air war is evident by the lack of concealment for the various aircraft on the field.

Goering grew more and more convinced that the lack of effectiveness on the part of the Jagdwaffe was due to cowardice. Galland had been trying to limit the amount of aircraft available for action each day to allow the units to reform and repair so that they could operate most efficiently. Goering railed against this policy and ordered that all aircraft would fly against every raid. This one example illustrates clearly why Galland was loved by the pilots, while Goering was, for the most part, despised.

It was about this time that Major Gunther-Hans Von Kornatzki approached Goering with a radical new concept. Kornatzki had just lost his wife of two years (who was one of Galland's secretaries) when she was killed during a bombing of Berlin. Kornatzki proposed that the only way for fighters to make an effective attack on the heavily armed-American *Viermots* (four motors) was to attack line abreast as a Staffel (approx.12 aircraft) from the rear and press home the attack to point blank range. Goering immediately accepted the idea and ordered the formation of a special unit, with Von Kornatzki at the helm.

Sturmstaffel 1 was an independent unit of Staffel size that was not connected to any other squadron, and answered directly to Goering. Pilots were recruited from existing Geschwaders, and were required to sign a document saying that they would press home attacks to point blank range, that if they were unable to bring down a bomber with their guns that they would ram the target with their plane (and not leave the aircraft until after the collision), and finally that they would not return without downing one of the hated B-17s or B-24s.

Sturmstaffel 1 flew Fw 190A-6 and A-7 aircraft exclusively. They were armed with four MG 151 20mm cannon in the wings. It seems that all aircraft had the fuselage mounted machine guns removed to compensate for the extra weight of the external steel plates that formed the cockpit armor. In addition the quarter panels of the windscreen were fitted with armor glass. Some aircraft also carried armor-glass blinkers on the sliding portion of the canopy. All this was added to try to protect the pilots from the defensive fire of the bombers. None of these Sturmstaffel 1 aircraft were fitted with the deadly Mk 108 30mm cannon carried by some Rammjägers in Sturmgruppes formed after the dissolution of this pioneering unit.

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The Styrene Sheet is a monthly publication of the Silicon Valley Chapter of the International Plastic Model Society (IPMS). Articles and comments should be submitted to Chris Bucholtz, Editor, P.O. Box 361644, Milpitas, CA 95036, or by E-mail at bucholtzc@aol.com. Excerpts may be published only with the written permission of the editor.

EDITOR'S BRIEF

Welcome to this year's nationals issue! Our members have outdone themselves this year, with four articles that examine some rather off-the-wall subjects. Even Roy Sutherland's Fw 190 article is about a weird variant, in keeping with our club's tendency. The editor wants to thank Roy, Bob, Mike and Robin for their excellent articles and encourages the rest of the membership to keep this trend going!

CONTEST CALENDAR

August 11, 2002: **IPMS/Central Valley Scale Modelers** host their **14th Annual Scale Model Show and Contest** at the Holland Elementary School Cafeteria. The theme is "WWII Pacific Theatre Operations 1941-1945." For more information, call Nick Bruno at (559) 229-3675 or Jim Cavin at (559) 584-5796.

September 7, 2002: The **IPMS/Reno High Rollers** present their **Third Annual Model Contest** at the Desert Heights Elementary School, 13948 Mt. Bismark in Reno, Nevada. The theme is "The Century Series." For more information, call Doug Summers at (775) 747-5931 or e-mail him at ghpltd@aol.com.

September 14, 2002: **The Captain Michael King Smith Evergreen Aviation Institute, IPMS/Portland and IPMS/Salem** present their **Fifth Annual Model Contest and IPMS Region 7 Convention** at the Evergreen Aviation Museum, McMinnville, Oregon. For more information, call Tony Roberts at (503) 282-2790 or e-mail him at roundelroberts@msn.com.

October 13, 2002: **IPMS/Orange County** hosts its annual **OrangeCon** in Buena Park, California. For information, call Nat Richards at (949) 631-7142 or e-mail him at richa5011@aol.com.

November 2, 2002: **The Antelope Valley Group** hosts **Desert Classic VI and the Region 8 Regional** at Antelope Valley College, 3041 W. Avenue K in Lancaster, California. The theme is "The Vietnam War, 1946-1975." For more information, call Bill Kelly at (661) 305-7902 or e-mail him at v1rotate@prodigy.net.

February 16, 2003: **Silicon Valley Scale Modelers** presents its **Tenth Annual Kickoff Classic Model Contest** at Napredak Hall, 770 Montague Expressway, Milpitas, California. For more information, call Chris Bucholtz at (408) 723-3995.

If you look at the contest schedule below, you'll note that the last entry is for the club's 2003 contest. We've already reserved the lovely and somewhat retro Napredak Hall for a second year, and now the officers are mulling over themes (the Editor's personal favorite: "That '70s Contest"). If you have a suggestion, e-mail the editor; all will be considered, many will be mocked, and one will actually be chosen!

In other news, the Editor removed his editor's hat (the fedora with the card reading "Press" sticking out of the band) and put on his Regional Coordinator's hat (the one with the propeller on top) this month and came up with an idea that could help get more people to judge. The number of people volunteering to judge is down; this is because the job is somewhat thankless and is rarely acknowledged. Region 9 will try to acknowledge our judges—and build better judging teams in the process—by awarding special pins to people who step up and do this important job at our contests. At each event, judges will sign a book indicating their participation. If you judge five times in 18 months, you'll get a lovely enamel pin that is unique to our region—so unique, in fact, the Regional Coordinator has yet to purchase it. But just you wait—it'll be something else! If you judge five more times in a similar period, you'll get the next level of pin, and if you judge five more times in a third 18-month increment, you'll get a lifetime achievement pin.

There are two reasons for this plan. First, it will recognize judges for the dedicated volunteers they are. Second, it will encourage more people to judge and to learn to judge from people identified by their pins as experienced judges. Third, it will force contests who refuse to take volunteers to open their teams, helping to prevent "homer-ism." finally, it will provide a means to identify judges to the rest of the modeling public, giving people a chance to learn about what goes into picking a winner at a contest.

The most important thing is to recognize the judges. Unless you've judged, you don't realize how arduous the job can be. It can also make you a much better modeler, and that makes it something that we ought to encourage.

Another group we need to encourage is children. On August 10, the Foothill Presbyterian Church is holding its anual Children's Faire, and SVSM will have a table there. We've done this four times in the past, and the event provides a great opportunity to reach kids who may not be exposed to the hobby. We also reach many parents who quit modeling and who think of coming back after seeing our models. In the four years we participated, two models were broken: one by a parent and one by one of our members! The children are almost uniformly respectful. For information on participating in this worthwile event, call or e-mail the editor.

Finally, if you're reading this at Virginia Beach, welcome to the Styrene Sheet. We publish monthly and always strive to present a selection of articles that you'd be hard pressed to see anywhere else. Hopefully, you'll enjoy what you see inside these pages and gain a bit of inspiration from the stories.

And now, your editor is going to go and start packing. You can never be too organized when it comes to the nationals!

—The Editor

A vacuform junkie's caution about *Contrail*

By Bob Miller

Yo! All you vacuform fans out there! Here's an opinion poll: What is the worst vacuform manufacturer in the business? It's nice to argue who makes the *best* kits, but who makes the worst? This isn't trivial either: we all have friends who never touch a vac kit, despite the fabulous range of subjects that will likely never be ventured by even the short run injection molders. "They're just not that bad," you've heard yourself say, "once you spend a few minutes cutting them out of the sheet." But are there some bad enough that you would have to tell a friend, "Hmm, no, maybe you shouldn't try one of ____'s?"

***Contrail*'s Fairey *Seal* is enough to make you blow a gasket. One major problem: two lower left wings, no lower right wings! This is the RAF's *Gordon*, a close relative of the *Seal*.**

Seems to me the worst feature of a manufacturer would be inconsistency. Early *Airmodel* kits were too often a problem, frequently too lacking in detail to be worth it unless you *really* needed that model. (Though the important Dornier 15 *Wal* had to wait some 20 years before *Huma* made life easier, and I still know of no other Do 23. And both were actually good kits.) I find *Execuform* difficult, but that's admittedly my problem.

So what outfit would lure you in with a seductive subject and then sit back and chuckle, "Heh heh heh. Gotcha!" as you find it's vastly harder than promised? My personal nomination (but you vacformers are welcome to chime in, now) is (drum roll, there, professor!) *Contrail*!

Contrail has disappeared, most of their kits returning under the *Sanger* name, along with kits of *J. K. Elliot* and, I think, *Formaplane*, but many are still found in shops or vendor tables. So why would I tell a friend "Y'know, that one might not be a good choice for you. No. Really. *Don't try it*.!" They look good on the sheet, but it's the surprises you get when you cut out the parts. Consider, for instance, *Contrail*'s Fairey *Seal* and *Hendon*. I've started both and then pushed them to the back burner. (No, no. I don't mean I'm trying to set fire to them. I mean I'm putting off facing the problems.)

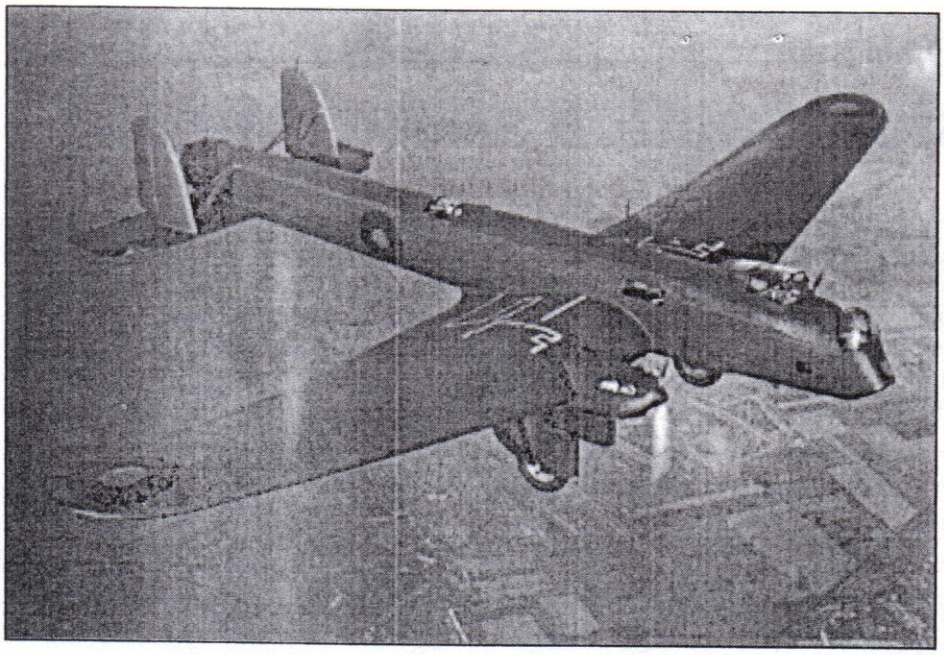
First the *Seal*. Here's an attractive and important aircraft, the last version of the Fairey III lineage that extended from World War I into the early days of WWII. This radial-engined version first flew in 1931, and was a carrier-borne spotter-reconnaissance type with capacity for 500 pounds of bombs. The RAF's equivalent version was the *Gordon*, which differed most visibly in vertical tail shape and in being two-place rather than three. The fuselage sides also lacked the recesses for the A-frame arresting hook.

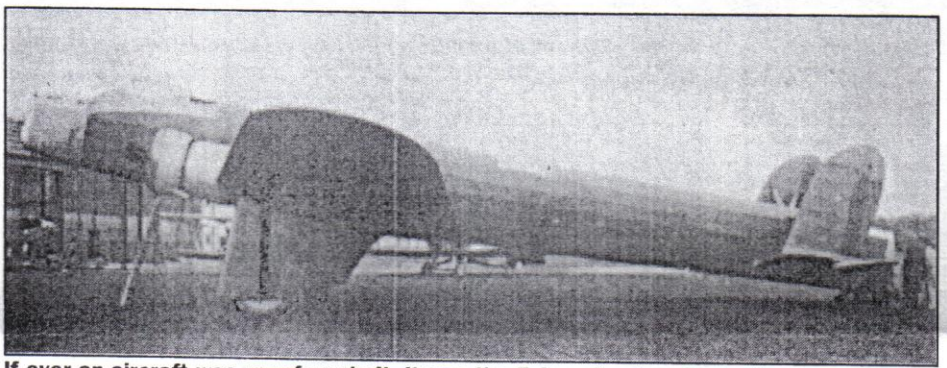
The initial impression of the kit is good. There are about 24 sheet parts and 18 injection molded ones that look usable if sometimes needing lots of cleanup. Scribing is, as on many vacuforms, a little broad and irregular, but could easily be filled and rescribed if desired. Less satisfactory is the fabric simulation on the aft fuselage: there are a series of scribed lines to represent what should have been slightly raised stringers. These would take lots of work to fix, too much for a non-competition model The upper wing shows good, if overly heavy, hinge lines and delicate rib taping. A good feature found on many *Contrail* kits is the built-in dihedral that doesn't require scoring and bending. The upper wing needs slats outboard, but these are not provided for. Since they were applied over the constant airfoil section, they are easy to add.

The two lower right wings...Wait, the what? Yes, by gosh, there are two right wings and no left. Must have been done when Margaret Thatcher was Prime Minister. The airfoil is thin and goes concave on the aft bottom, so it's not practical to just turn it over. Whittling one from wood seemed the simplest solution, rib-taping be hanged. After that, no problems with cutting and sanding.

The next problem is one encountered with many of the more obscure types. *Contrail* offers little detail on the interior except a flat floor, a panel/bulkhead in low relief, and a pair of seats. That gaping four foot long cavity aft needs some detail. I didn't seem to have anything useful, but some study of pictures of the plane in flight suggested a solution. The guys in back seemed to have a penchant, in the early '30s, for sitting up where the viewing was better, on the aft decking or on some cross-structure between the second and third seats. The effect on the already rather modest performance must have been quite noticeable. ("Pilot to observer. We've got a 30 knot 'eadwind and the *Glorious* is doin' 25, mate. Get in 'ere and sit down, or we'll still be 'angin' out here on this ruddy final approach at teatime!") Since I inferred a divider between aft cockpits, it seemed reasonable to make an interior inspired by the *Seal*'s younger cousin, the *Swordfish*.. It may not be right but it's satisfying

Assembly is typical for vacuform biplanes. The details proved a little perplexing. There was one full-circular molded





If ever an aircraft was vacuform bait, it was the Fairey *Hendon*. *Contrail* comes close to capturing the plane on the carrier sheet, but it's downhill from there.

with fully-submerged powerplants. The artist had no doubt seen pictures of the *Hendon* along the way. Wings were vast, 25-percent-of-chord thick and mounted with a built-in angle of attack that made the long fuselage look nose-down at cruise. They also held bomb cells which could fit 1,000-pounders, but they could only lift one, plus a few hundred pounds of smaller ones. The prototype first flew in 1930, but only 14 were ordered and one squadron flew them for barely more than two years. That hardly says "success," but this was an interesting intermediate stop on the way from the big biplanes that ended with the *Heyford*, to the beginnings of the modern bombers with the *Whitley* and *Wellington*.

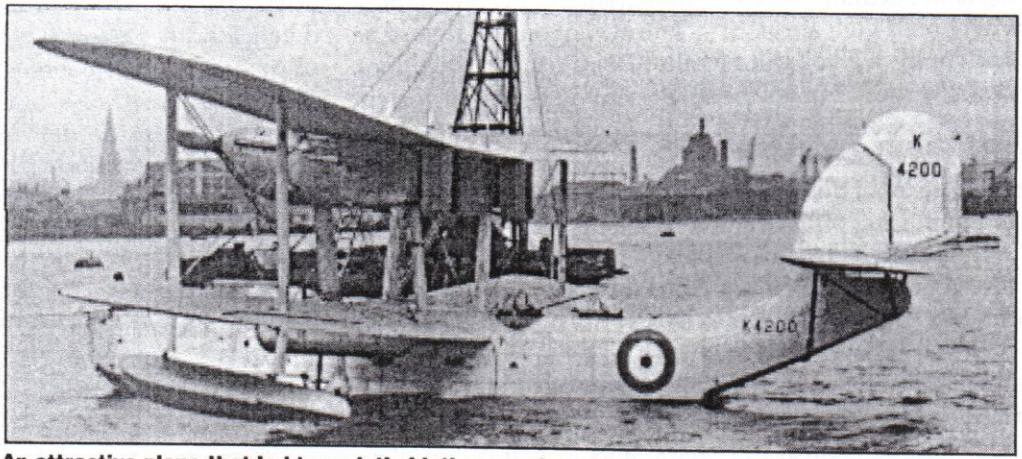
This turns out to be an insidious kit. The decals look right, as if they will be just subtle enough over the dark NIVO green. The plan shows the lines of the aircraft well. But it has the same problem as with the *Seal*, in that it lacks useful internal detail, and I was short of good pictures of the prototypes. The cockpit history books by L.F.E. Coombs are useful here, in at least showing what was characteristic of various nations and eras. But details of the tail gun position elude me: was it a ring or a post mount? If a ring, how did it fit into the contours of the tail? And while there was a pop-up wind deflector ahead of the gunner's cockpit, there's no clue how it fit the fuselage. The real bad news begins when the parts are cut out of the sheet, and we find that they don't match the plan. The span of the horizontal tail is short by a quarter inch each side, the vertical tail is smaller than the plan and shaped wrong, and those "trousered" fixed gear legs are too short by about 3mm and rounded too much at the bottom.

Let's begin assembling some parts. The wing has a very noticeable twist or "washout" that is nicely molded into the outboard sections so the builder doesn't have to struggle to get the two sides to match. But, you know how vacuform wings sometimes take on a very stubborn twist as you as-

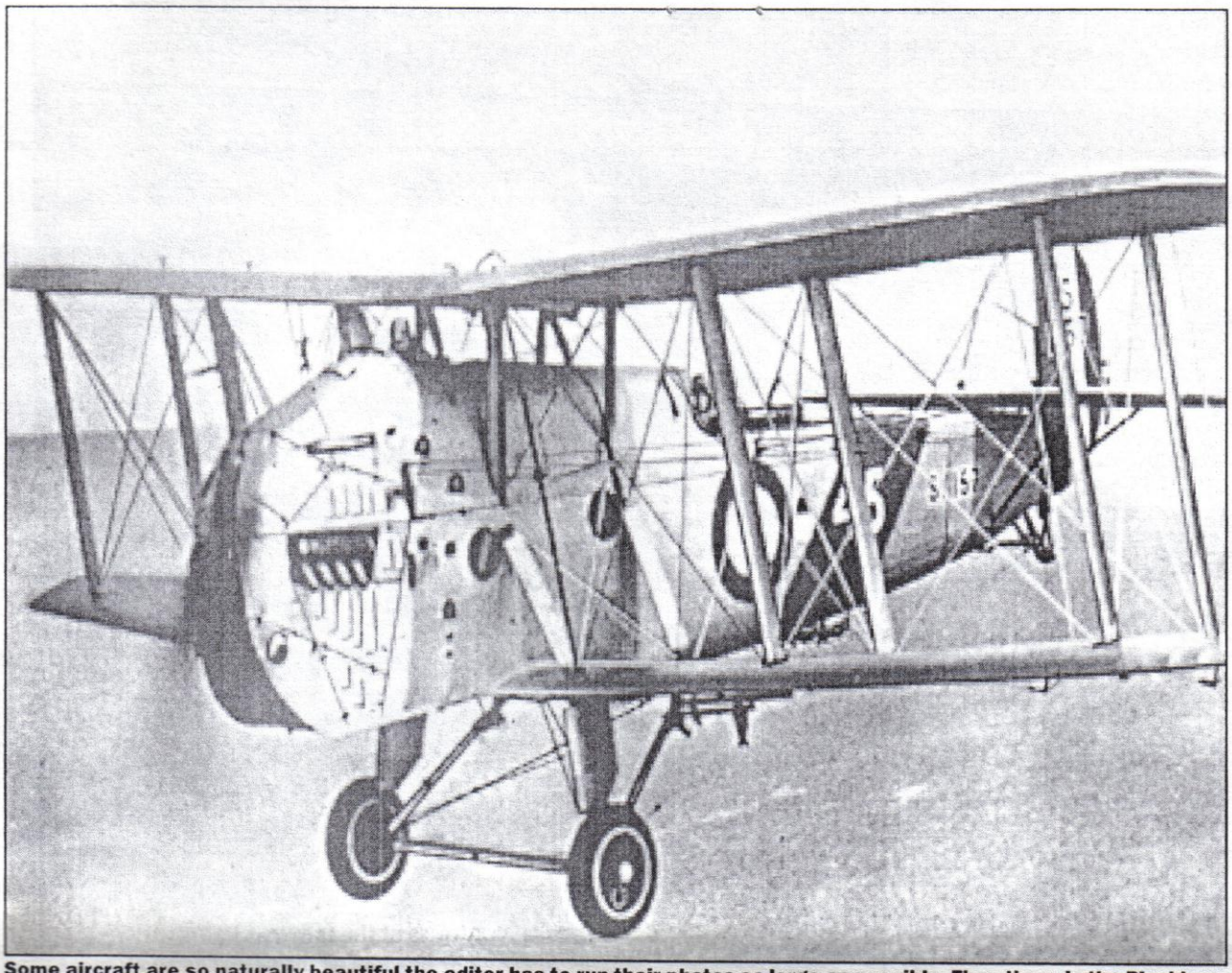
piece, and one vaguely semicircular one. Was the circular one the rear exhaust collector ring or the gun ring? It seemed easier to make my own versions (which is, after all, not uncommon with vacs.) It needed a Vickers gun (not supplied) mounted outboard of the pilot's cockpit, where it could fire outside the twin-row radial. There was room for a Lewis on the gun ring, but no photos show one, so I left it off. A cowling is provided to allow for building cowled variants, but only Latvian *Seals* used them in service.

The outcome is a reasonable, well-scaled model which turned out to be more work than I had guessed. I was satisfied: modeling is about challenge, isn't it?

So, onward to another Fairey model by *Contrail*, the *Hendon*. Here is a twin engine night bomber with a look like nothing else I know of. It has a sort of art-deco quality, with its "trousered" landing gear and shuttered radiators faired into the nacelles. I recall comic books from the late '30s (probably preceding the old "Smilin' Jack" strip) that included airplanes with nacelles looking something like this, as well as monster multi-engine designs



An attractive plane that led to an intimidating vacuform kit: the Supermarine *Scapa*.



Some aircraft are so naturally beautiful the editor has to run their photos as large as possible. Then there is the Blackburn *Blackburn*, the airplane so grotesque that it stunned its own manufacturer into stammering when it came time to name it.

semble them that simply won't straighten out? Yeah, well, these *untwisted* and went together relentlessly straight! As Charlie Brown might put it in the *Peanuts* comic strip, "Aargh!" On the plus side, the white metal propellers look very nice. It's still on the back burner. I'm not very particular about models I don't mean to show anyone, but this going to take work to bring to even a moderate standard of accuracy.

I am definitely through having anything to do with *Contrail* kits! Avoid them.

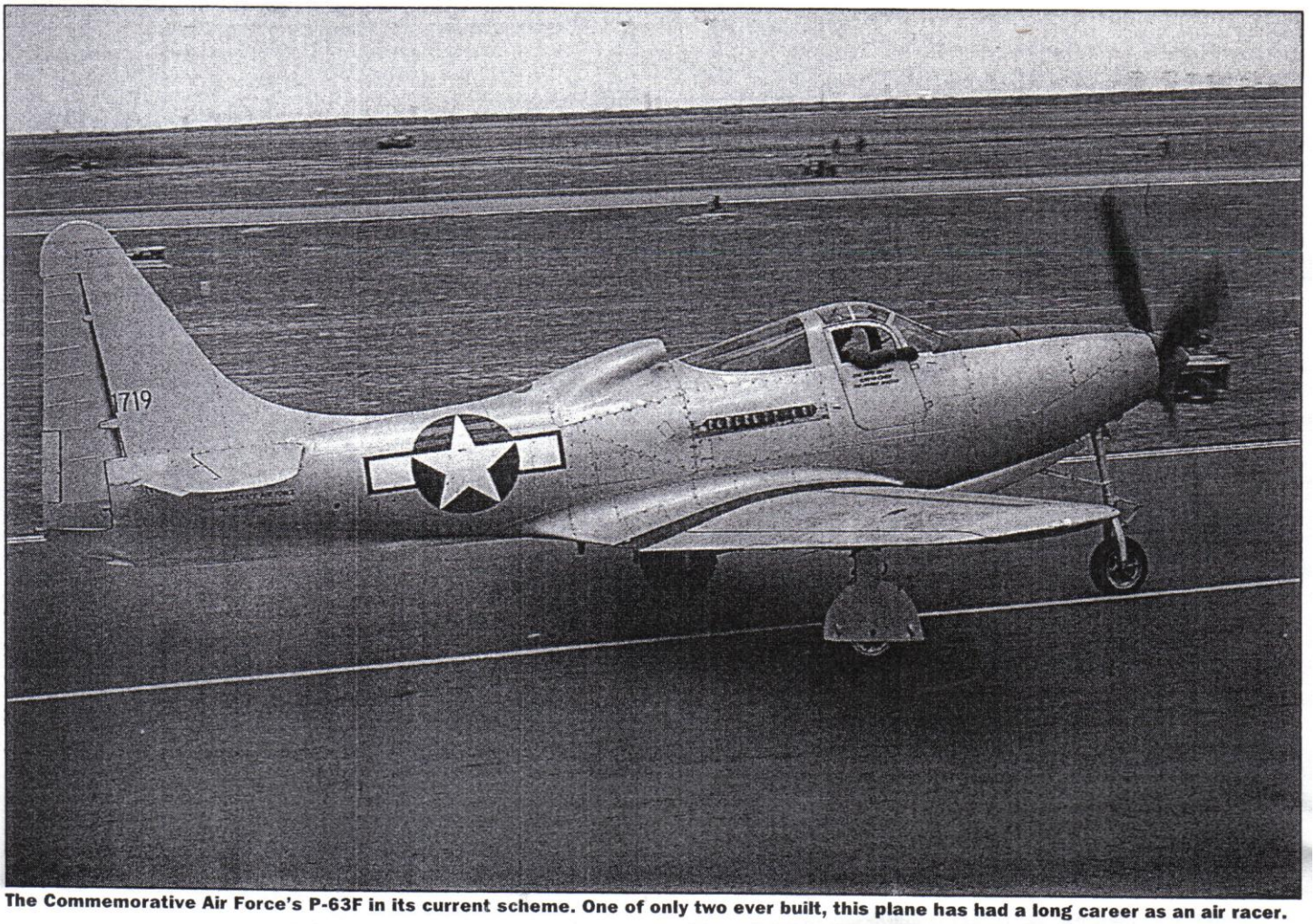
On the other hand, my sweet little Blackburn *Blackburn* was a *Contrail*, and it went together fairly well, showed good accuracy and lines, and picked up a couple of prizes. I scratchbuilt the brass landing gear and the little that shows of the Napier *Lion* engine. Once again, there was little to go on for the interior, especially the observer's chart room-office, but it was fun fitting it out as I imagined it might have appeared. Score one for *Contrail*, there.

I needed more background for this review, it seemed, so I cut out the parts for my Supermarine *Scapa*. Just to see how they went together, you understand. It is an older kit, but a good one, and the subject is one of the RAF's lovely biplane flying boats of the interwar years. These were among the most elegant of aircraft, not in the graceful way of the *Spitfire* or *Hunter* or B-17, but in a sort of Victorian manner, like the generation of ships that carried both engines and full sailing rigs. Perhaps the most attractive of all was the Short *Singapore*, with its four Kestrel engines in two nacelles, but I've seen this kit and it looks like quite a handful. The *Scapa*, however, is intermediate in size between the *Singapore* and the later *Walrus*, and has a hull form much nearer the *Walrus*. It still mounts a pair of Kestrels, this time faired smoothly into the upper wing, and it should make an attractive model. Again, only 14 were built and they served until 1938. In that era, they were aluminum dope overall, and markings were quite basic, just roundels and serials.

The kit seems not to have any bad features. It scales to 1:75 rather than 1:72, based on length and span, and it *looks* right. The upper wings were made without molded-in dihedral, but that is not uncommon with vacs. Less conveniently, there is considerable wood-grain showing and the center-section fuel tank cover is scored in much too deeply. There will be filler spread over quite an area before it's done, but again, that's not unique. There are no rib tapes on the fabric surfaces, and that will take some work. The coolant radiators are a minor problem, sticking out as they do on each side at the rear of the nacelles. An attempt was made to form them integral, and it shouldn't have been tried: The draw was too deep and the detail too complex. This won't be hard to fix. The model entirely lacks molded or metal parts, though all it actually needs are propellers, doubtless available from *Aeroclub*. And this time, details are available, thanks to the basement collection at the NASA/Ames library.

The *Scapa* seems to be out of production, but *Sanger*'s current list included some wonderful subject. How about an *Iris* or *Perth* biplane boat? Or how could I resist a *Vildebeest*? Reviews say it looks very good and is spot-on for scale. And they have a Westland *Welkin* that's...

No, wait! I swore off *Contrail/Sanger*, didn't I. I was telling my friends not to even touch their products. Well, okay. Just don't try one of theirs for your *first* vacuform.



The Commemorative Air Force's P-63F in its current scheme. One of only two ever built, this plane has had a long career as an air racer.

Converting *Toko's Kingcobra* into a tall-tail P-63F

By Mike Burton

Destined to be the last piston-engined design for the USAAF to see mass production, Bell built P-63 3303 units in the shapes of models A, C, D, E, F and G. Nearly 2500 of these (a mix of P-63As and P-63Cs) were passed on to the USSR during World War 11, seeing much combat, while the USAAF employed theirs stateside as advanced fighter trainers. Both services were getting the best of the design's performance without the suffering the ill effects of its lack of range on internal fuel.

The feedback to Bell Aircraft from these two sources were to guide the development of the P-63E and result in several intriguing "one-off" *Kingcobras*. The "E" was to be the "ultimate" P-63; when WWII ended, contracts for over 3000 (all intended to go to the Soviets) were cancelled after the 13 initial production models were built. These had the new larger wing (10 inch increased span and totally redesigned), larger engine and shorter carburetor scoop, making the P-63E-1 difficult to differentiate on sight externally from a P-63C-1 or -5. That would have changed in short order had the war continued. Bell built a single P-63D "bubble top" Kingcobra solely to evaluate the planned larger wing and the improved visibility canopy for the P-63E.

Thanks to earlier NACA experiments seeking to improve longitudinal stability using a P-63A, Bell also planned to have a taller vertical tail for the P-63E-5, and they flight-tested this idea with the P-63F. There were two -Fs built by Bell Aircraft using modified P-63E-1 airframes, given serial numbers 43-11719 and 43-11722.

While the fate and even photos of 722 have eluded me, this is not so for its long-lived stable mate. Discovering how many guises this testbed has worn helped inspire me to build it! The original scheme for 719 was an overall natural metal finish, with the USAAF star and bars on wings and fuselage in the standard manner. Underwing gun packages were present at one point, but later on were absent in photographs. The aft deck of the cockpit in shots with the clear canopy appear to show no radio or other instrument packages; later, the aft canopy has an opaque look, suggesting it was either overpainted or replaced with sheet metal for an instrument package.

The civilian life of 43-11719 began as Race # 21 for the 1946 Thompson Race, owned and flown by H.L. Pemberton to 10th place. With the number 21 on the fuselage in black where the star used to be, and the civil registry NX1719 in large characters on the top and bottom of the wings, only the red spinner and vertical fin tip lent any color to this well-polished metal air racer. The wings were apparently painted (probably to improve laminar airflow) in a silver or aluminum color.

Resurfacing in 1976 at the Reno NCAR as Race # 4, 719 was repainted aluminum overall, including the gear legs, with the USAAF star and bars in the stock fuselage position, although

Two views of P-63F 43-11719 during her Air Force testing career: with gun gondolas and a clear rear canopy (top), without the gondoals and with a tinted rear canopy (bottom).

I have found no evidence to suggest they were on the wings as well. The tail had the new civilian registry NL6763 in very small characters. The race number was on the cockpit car doors. The exhaust stubs looked stock.

By 1978, the P-63F was Race #8 and the exhaust had changed to a configuration best described as definitely not stock. A Champion brand spark plug logo appeared on the main gear doors.

1979 saw yet another big shift for old 43-11719, under the new ownership of the Whittington Brothers, who entered it in Florida Air Race. It was painted in a glossy "pseudo-Russian" green and blue with red accents and outlined Soviet stars on the fuselage, vertical tail, and wings. The word "COBRA" was emblazoned on the nose on the left and probably the right side, and "P-63" was applied in a racing style "meatball" on the cockpit doors It is likely these were white numbers on a red meatball with a white surround, but I have not been able to confirm this. "General R/V" and "Fort Lauderdale Fla" were marked on the rear fuselage, in a similar fashion to U.S. Navy squadron/aircraft notation. Pennzoil and Champion logos were applied to the main gear doors. The exhaust is single pipe.

The current configuration for NL6763 is the one it wears as a member of the CAF (Confederate/Commemorative Air Force). It's an overall silver/aluminum lacquer finish, glossy or semi matte, with an insignia red spinner, olive drab antiglare panel, and USAAF stars and bars in the standard positions. The wing walk areas, are flat black, as is the tail number 4117 on the vertical fin. Underneath the tail planes is "N6763" (note that the L is dropped). Close to this is the legend "CONFEDERATE AIR FORCE" on one line, and below this is "BELL P63 KINGCOBRA," all in capitals and in black block lettering. On the left cockpit door is "PILOT" in block letters and two lines of italicized script for "COL. MIKE COLLIER" and "COL. SCOTT ROZZELL." The aft canopy appears to be tinted a dark color and the exhaust stubs appear as stock configuration.

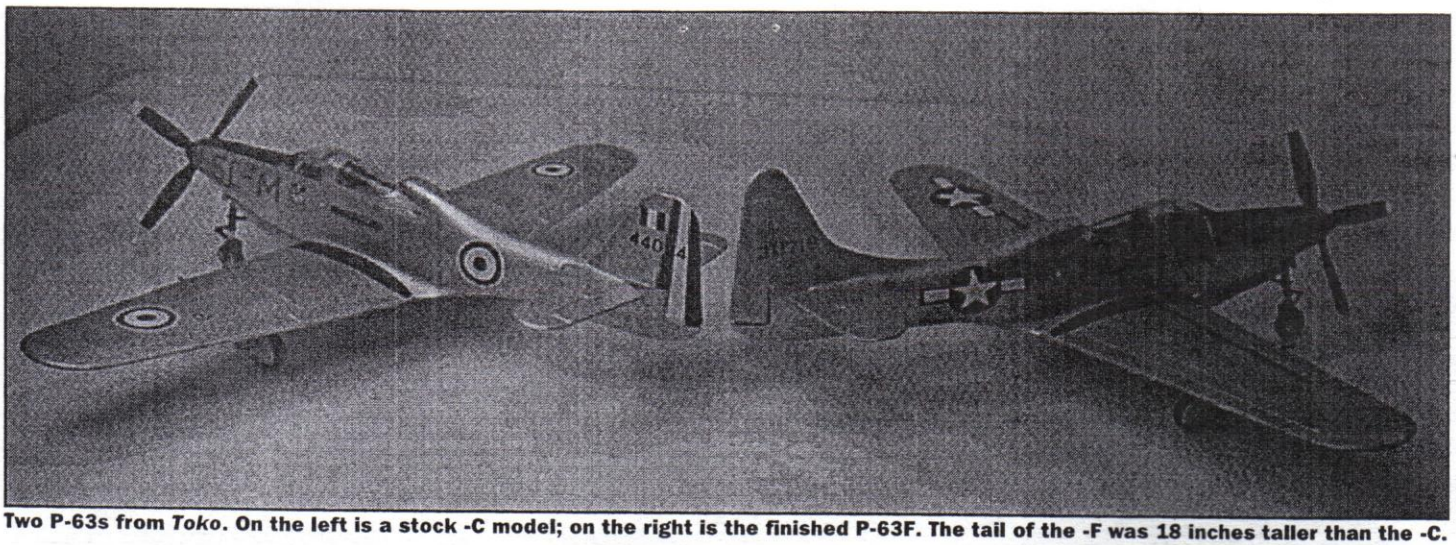
These are a lot of guises for an aircraft of which only two were made nearly 60 ago years and counting.

Toko has given fans of the Bell *Kingcobra* a marvelous 1:72 scale solution for an inexpensive collection without even having to buy aftermarket parts or decals. Their kits of the P-63A, P-63C, and RP-63G are based on one mold with version-specific instructions and decal sheets. The models are inexpensive, but you pay the price in the building. Modeling is supposed to present some challenge, is it not? Having built two of *MPM*'s limited edition P-63A in 1:72, I'll heartily attest this is true!

Having already built one of each of the three variants *Toko* provides, I was inspired to try to build the rest of the family. The "F" started out as challenge to myself, not being particularly adept at scratchbuilding major external surfaces. I may have built several vacuforms of uncertain lineages, which may be seen by some as no different a process from scratchbuilding, but to me it is!). Intimidated at thought of boldly cutting off the vertical tail of my 'Cobra, I settled on a plan that, if things didn't pan out, restoring it and finishing as a "stock" P-63E-1 wouldn't be impossible. Researching and then producing a paper template "tall tail" by hand with a #2 pencil on cheap bond prompted me to go on, as the template seemed to fit the contours of the *Toko* fuselage.

A complete-looking cockpit is supplied in the kit, but to build the cockpit requires some work. The cockpit parts fit each other well, but fitting them inside the fuselage means carving and sanding. The rear deck pan and rollover bulkhead on all four of my kits needed reduction of the outer dimensions to allow the fuselage to close. When this is done, the scale effect of the items seems right, so it appears *Toko* merely molded them a bit oversized.

Before the fuselage halves are joined, the model requires as much weight in the nose as you can pack in. The next trick is



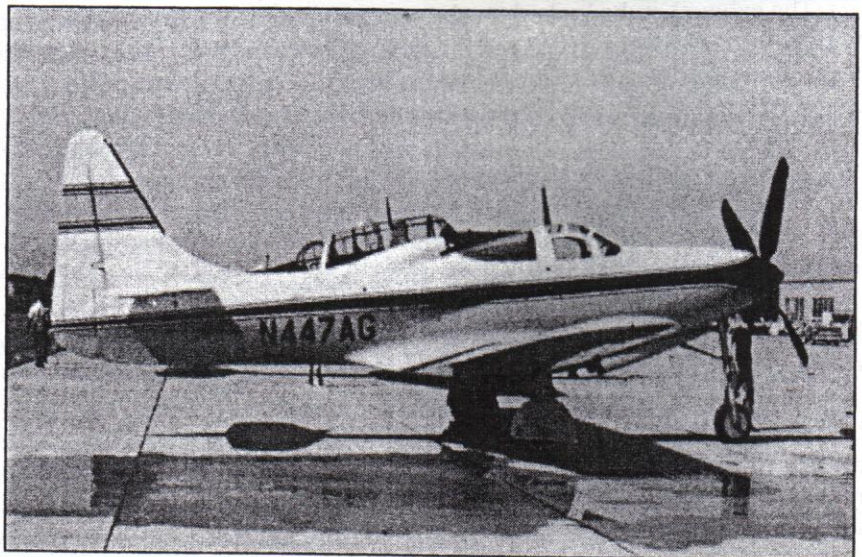
Two P-63s from *Toko*. On the left is a stock -C model; on the right is the finished P-63F. The tail of the -F was 18 inches taller than the -C.

fitting the rear scoop and underside fuselage fin. The P-63F has a ventral fin like the P-63C or E, and this is provided in the kit. Careful alignment is the key here, since there are no pins or tongues to guide the fit of the parts.

The P-63F (and E) have a slightly shorter carburetor scoop on the rear fuselage than the P-63C. *Toko* provides a three-piece assembly (two halves and the intake front) which makes for much cursing. Mating this to the fuselage means filing, sanding and considerable filler. The rear cockpit enclosure is next, and this was when I made my final decision about building a P-63F. 43-11719 was rolled out and flown initially with the standard clear rear canopy and a rear deck devoid of any equipment that was visible in pictures. P-63E 43-11720 was identical in this respect. Later on, the P-63F had flights with an opaque rear canopy, an option in the *Toko* kit (it's part of the "Pinball" version) before being restored at some point to a clear rear canopy. I chose to remove the equipment from the rear deck and use the clear canopy, leaving the most options open.

The cockpit "car door" parts are molded as clear one piece items, a nice provision by *Toko*. The windscreen fits onto them and bridges the gap between the front panel and the armored bulkhead. If you choose to pose either or both doors open, your work is simple. Some adjustment of the windscreen height was in order to prevent a distinct "step" at the bulkhead with the doors closed. The subtle curve of the doors matches the fuselage curve well, but the arc of the doors where they join the windscreen leaves some work to be done. With mine, closing this all up resulted in bad "fishtail" stress crazing in the left car door window. Pressing to fit isn't always the best idea! I managed to carefully drill and file open one window and popped out the opposite door undamaged!

The horizontal stabilizers are single pieces which butt-join to the fuselage. Since my somewhat aggressive handling of such glued joints often breaks these parts off during final finishing, I chose to add sprue pins. I drilled holes in the fuselage and carefully drilled matching holes in the horizontal stabilizers, then added bits of stretched sprue to give more structural strength



Above, another shot of the P-63F as it appears today with the CAF. Below, on display at an airshow in Illinois in 1959, wearing blue and white trim.

to the tail.

The wings are three pieces, a continuous lower half with molded in dihedral and separate upper left and right wings. The lower wing also has boxed-in gear wells and leading-edge intake walls. The intake facing is a separate molding. I glued the wings together except for the intake facing; when it was dry fitted to the fuselage it showed a distinct need for sanding along the upper wing roots, since the built-in dihedral of the wings was flattened. With this sanding done evenly, you get nearly perfect wing root joints and restore the proper dihedral. I sanded the intake facing on both sides to thin it further, then carefully inserted it in the space remaining at the fuselage/wing joint.

This is when I cut the vertical tail off flush with the fuselage, taking time to get as clean and even a cut as possible so, if I had to, I could restore the kit vertical fin to the fuselage. I test-fit my paper template "F" vertical fin, which continued to say everything was go. A "sandwich" of two sheets of thick scrap styrene with a core of thin sheet (to help form an airfoil) gave me a rough tail master to work with against my paper template. A little filing, sanding and shaping later, my new tail was created!

After an objective critique by several local master modelers I was confident my scratchbuilding had worked out. It was confirmed when my "styrene sandwich" became the master for a new *Obscureco* product which formed the finishing basis for my P-63F. The resin copy fit just as my original styrene one had, and with superglue as adhesive and filler, I was back to completing my project.

The landing gear legs are spectacularly thin and detailed moldings, as are all the gear doors. The wheels and tires for the main gear are well-molded as is the nose wheel. The propeller is molded separate from the spinner cap, and since filling the nose with weight precluded my making a spinning propeller, I glued it on after painting.

Choosing to finish my first P-63F as the original prototype #43-11719, an overall metal finish was the first order of painting business. A series light mist coats of *Testors* non-buffing aluminum Metallizer neatly blended the resin tail and styrene fuselage, along with my usual assortment of superglue filler. The landing gear legs and bays were painted Bell Green. The black walkways and antiglare panel were a combination of kit decals and *Polly S* acrylic paint. The standard USAAF star and bar was added in 4 positions.

Having leftover decals from prior builds made getting the serial number easy. After sifting through the P-63C and RP-63G sheets, I had the components for the prototype. After taking copious pictures for my collection of the lovely little beast without them, installing the underwing guns completed my "challenge". Now thanks to *Obscureco*, I can repeat the attempt far less painlessly in the future and others can share in the fun too! Remember: if you want to take this on, any edition of the *Toko* P-63 kit will serve you as a starting point as all have the requisite scoops, fins, and canopy treatments inside, so don't be shy!

P-63F Kingcobra References

Gentlemen, You Have a Race, by John Tegler. Copyright 1984 Wings Publishing Co. (Page 262)

P-39 Airacobra & P-63 Kingcobra , Warbird Tech Series # 17, by Frederick A Johnsen. Copyright 1998 Specialty Press (Page 38)

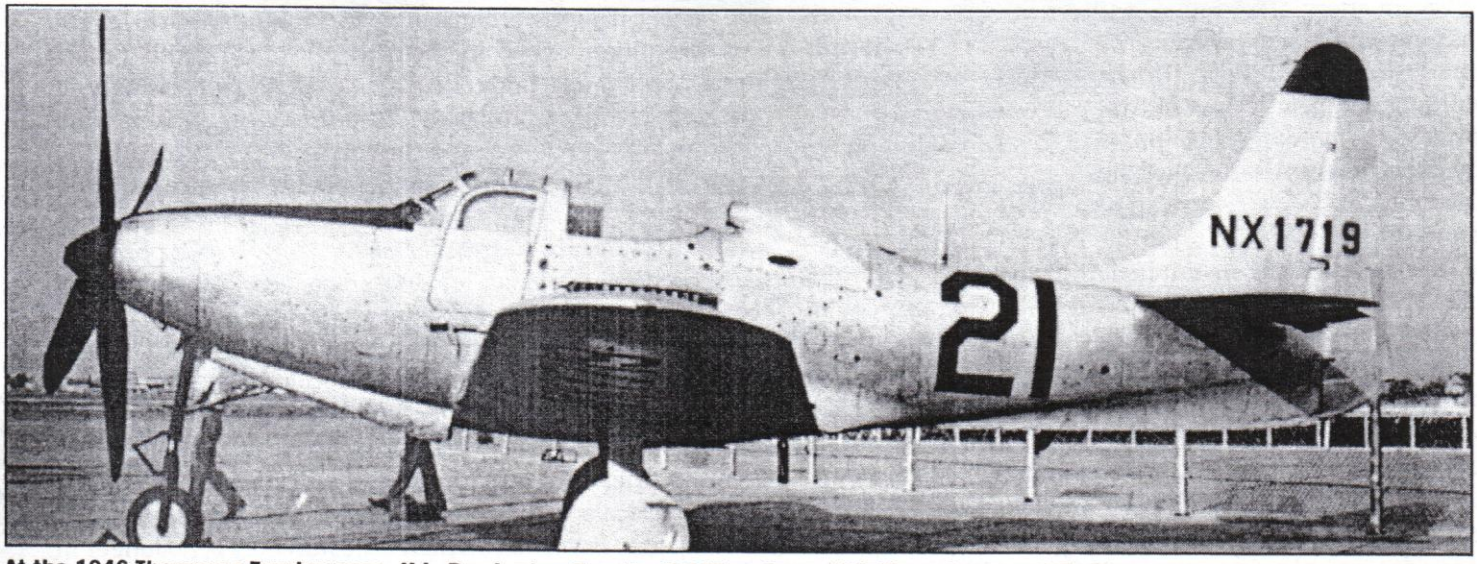
P-39 Airacobra, Detail & Scale # 63, by Bert Kinzey. Copyright 1999 Squadron Signal Publications (Page 67)

Racing Planes and Air Races, Volume 4 by Reed Kinert. Copyright 1968 Aero Publishers (Page 8)

Cobra! by Birch Matthews. Copyright 1996 Schiffer Publishing Co. (Pages 198, 199, 336, 337)

Unlimited Air Racers by Don Berliner. Copyright 1992 Motorbooks International (Pages 145, 157)

Ghosts 2002 calendar, December.



At the 1946 Thompson Trophy races, H.L. Pemberton flew the P-63F as Race #21. The spinner and fin tip were red.

Rammjager: building an Fw 190A-7 in 1:72

Continued from page 1

Sturmstaffel 1 was relatively short-lived. They flew their first combat mission on January 6, 1944, and were dissolved at the end of April of that same year. Despite this brief existence, the unit was quite successful. The tactics proved to be very effective, and many four-engined bombers were shot down or badly damaged. There were indeed instances of ramming, but by far most of the victories were as a result of gunnery skills.

The first two months of operation were not very fruitful. Losses were high due to the long closing times brought about by attacking from the rear, but as experience grew, the toll taken on the bomber formations increased.

After Sturmstaffel I was disbanded, the formation of new Sturmgruppes was initiated. Major Von Kornatzki was put in charge of II./JG 3. Also formed were IV./JG 3 as well as II./JG 300. Most of the surviving Sturmstaffel I pilots were absorbed into these units. Only a handful of these pilots survived the war, an indication of just how dangerous a proposition attacking the heavies at close range was. The bravery and dedication of these pilots in defending their homeland won them the respect of both friend and foe.

Major Gunther-Hans Von Kornatzki, the father of the Rammj ger concept.

Of all the Fw 190 kits available in 1:72, the *Hasegawa* kits of the A-6 and the A-8 are far and away the best. They are beautifully tooled with finely inscribed panel detail and thin, crystal clear canopies. They are well-engineered and go together with little fuss, but it is their superb capturing of the shape and feel of the Wurger that makes them one of my all-time favorite kits. They are the most expensive of all Fw 190s on the market, but they are well worth it in my opinion. The only shortcomings of the kit are the rather plain cockpit, landing gear, and gearbays. *Cooper Details* (who?) has produced resin aftermarket sets to address the first two issues, but as far as the gearbay is concerned, my attitude is that it is on the bottom of the model, and therefore seldom seen. Rebuilding the gearbay would be more work that it was worth, especially for a collection. And this A-7 is number 12 in my collection of A series Fw 190s.

Assembly of this kit is straightforward, so I will only mention where I deviated from the normal building procedure. The cockpit walls are thinned a bit tapering towards the sill. The inside of the coaming was thinned by scraping with a curved #10 blade. Hand-holds and an off center slot for the Revi gunsight were cut into the kit coaming. The *Cooper Details* cockpit set replaced the barren kit parts, so the resin upper panel was test fit as I went. Once satisfied with the fit, the resin parts were cleaned up and painted RLM 66, a dark grey color. The cockpit parts were washed with black and carefully drybrushed with light grey. Dials were picked out in white and various knobs were painted red, yellow, and blue.

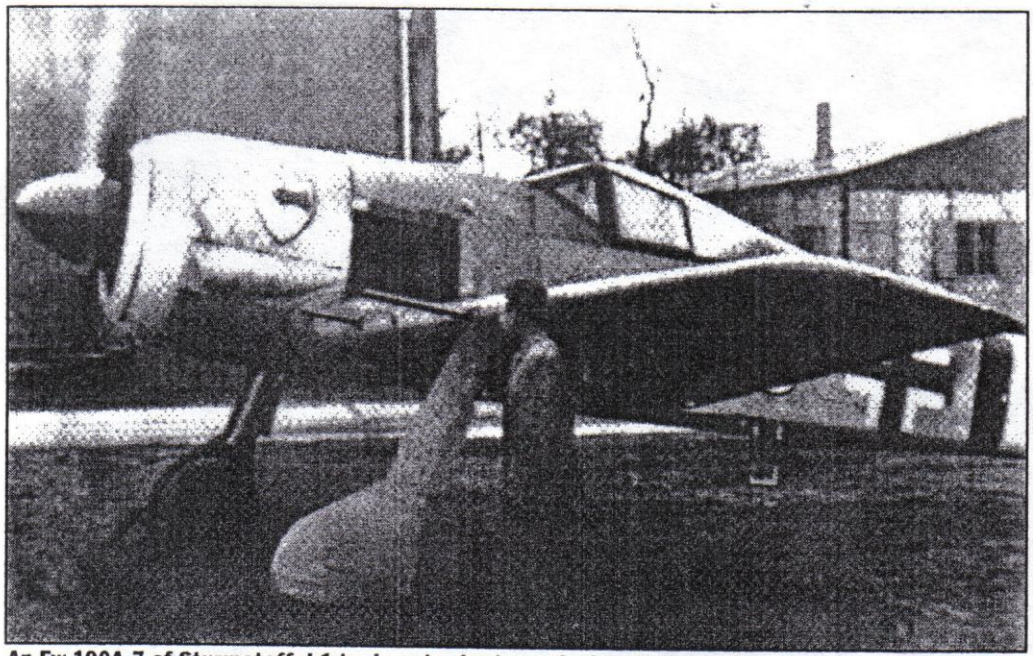
The fuselage halves and the rest of the major airframe parts were prepared for assembly by pre- scribing the panel lines near seams deeper with a steel pointed scriber. The fuselage halves were assembled and the cockpit was installed. The upper gun cowl fits beautifully if you take time to dryfit and adjust. Before they were installed, the barrels were removed and the openings drilled out. As there were no cowl guns carried on these Sturm aircraft, they were left empty and painted black inside. I also opened the exhaust slots on both sides of the nose and installed resin exhaust stubs. Canopy tracks were carefully scribed into the cockpit sill. The applique cockpit armor was simulated with .005 styrene card cut to shape. It was very carefully attached with tiny amounts of *Testors* liquid cement. Even so, I had to fill some low spots a few days later with *Mr. Surfacer* 1000, and then sand them flush.

The wings were next. I carefully cut off the molded-on 20mm gun barrels and pitot tube. The locations were marked and drilled out once the wings were glued together. New barrels were fashioned from *Plastruct* styrene rod stock and the ends drilled out. These were set aside to be added after painting and decalling were finished. The pitot tube is made from .008 guitar string fed into.018 thin-walled hypo stock.

The separate upperwing gun blisters for the outboard MG 151s were a bit thick, so I sanded the bases thinner. I attached them with liquid cement. The wings were dryfitted to the fuselage and adjustments made. They were then attached and set aside to dry. The rest of the airframe goes together as you would expect of a *Hasegawa* kit: nearly perfectly.

I needed to represent the armor glass quarter panels on the windscreen. I decided to do it by attaching a .008" stretched sprue triangle just inside the scribed outline of the windscreen side panels. It is easier than it sounds. I cut the sprue to length and carefully attached them to the clear part with *Testors* liquid applied sparingly with a fine brush. Surprisingly, it doesn't craze the clear plastic. The armor glass blinkers were cut from .015 clear sheet and the corners were sanded to the correct radius. The outer face of these panels are also radiused all along the perimeter. The inner raised frame is made as described above from stretched sprue. See closeup photos to see what these details look like installed. With this work complete, the model was now ready for paint.

The camouflage was applied using custom mixed *Tamiya* paints shot through a Paasche H airbrush. The RDV bands, yellow undercowl and rudder were masked and sprayed on. Future floor polish is my weapon of choice for glossing before decals. It dries hard and tough, and will stand up to enamel washes. Decals came from *EagleCal* sheet number EC-7 "Sturmjagers Part One," which unfortunately is no longer in print. These are well researched and beautifully printed,



An Fw 190A-7 of Sturmstaffel 1 taxis out prior to a mission. Note the heavily armored windscreen and canopy needed for the mission of tackling American heavy bombers.

although some of the smaller stencils were replaced as the screens were a tad plugged on my sample.

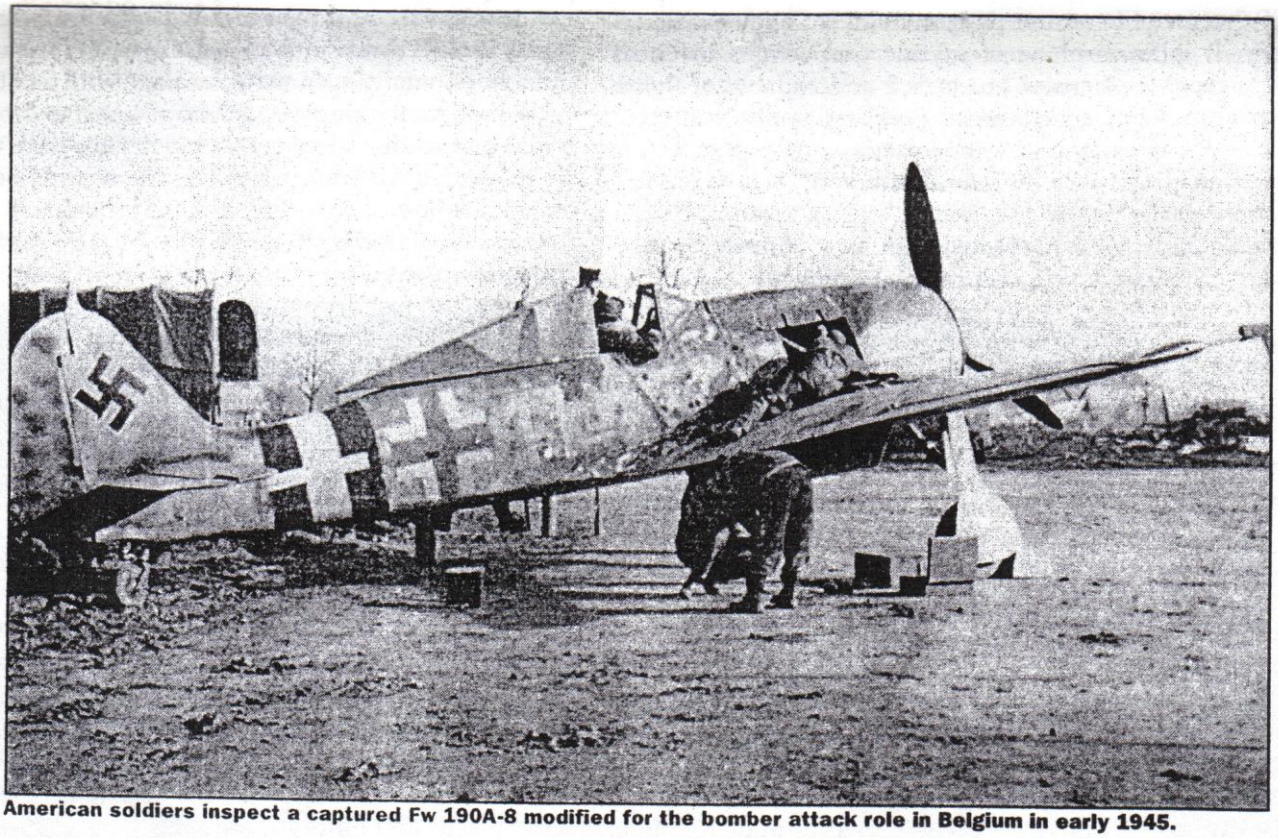
After washes were applied and weathering applied, the final semi matt coat was applied from a mix of Future and *Tamiya* Flat Base. I mix up a full bottle so I don't have to mix up a new batch every time I finish a new model... not that this is a common occurrence these days!

The entire landing gear was replaced by the new *Cooper Details* (them again?) detail set. Once cut away from their molding blocks, they are pretty much direct replacements for the kit parts. The "sit" of the main gear legs on the Fw 190 can make or break the entire look of the model, so the included assembly jig made quick work of this job. Does this seem like a plug? Sorry, just relating the facts, ma'am.

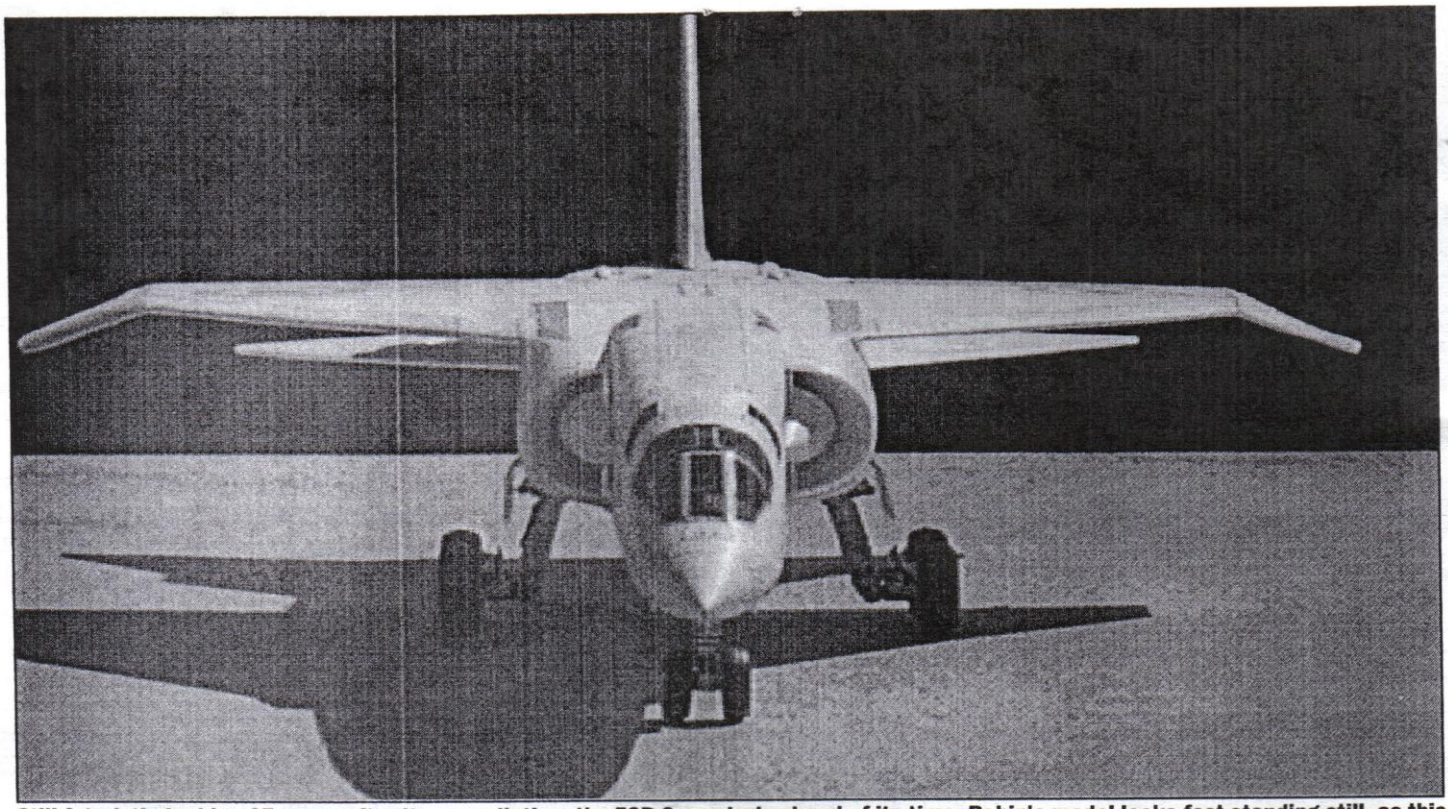
A cool new product I used on this model was the aerial wire. Last year at the IPMS Nationals, one of the shops was selling .002" (that's finer than a modeler's hair... Or even a human hair!!) monofilament line used for fly tying. This stuff is incredible. It's exact scale for 1:48 antenna wire, and looks fabulous even in 1:72. The biggest advantage is that it is about 47 million times stronger than stretched sprue of the same diameter, and it is heat-tightenable, if that is even a word. The ends were attached with superglue and carefully tightened with a soldering iron. I paint my aerials with a thin med-dark grey wash to further reduce its scale. Glossy antennas look about twice as big, and fake to boot. And remember to always dullcoat those superglue attachment points!

Final assembly went off as usual, with minor touchups and such. I am very happy with the result. Having built more than a dozen of *Hasegawa*'s fine Butcher Bird in 1:72, I can unhesitatingly recommend this kit to anyone wanting a really nice Fw 190. The D-9 is almost as nice, and *Tamiya*'s 190A-3 kit, while suffering from a few minor shape problems, fills an important gap and is a welcome addition to this scale.

My A series collection is nearing the finish. The A-2 is ready for paint. The A-6 is half built. Then it's on to the A-9, which requires no conversion work if you use the metal prop blades and cooling fan from one of *Hasegawa*'s A-9 releases. That leaves only the ducted spinner prototype, which *MPM* has produced a decent injected kit of. The only holdup is that the canopy (which is unique) is a vac piece of poor quality.



American soldiers inspect a captured Fw 190A-8 modified for the bomber attack role in Belgium in early 1945.



Still futuristic-looking 37 years after its cancellation, the TSR.2 was truly ahead of its time. Robin's model looks fast standing still, as this head-on shot attests.He used home-made decals to set off panel lines, fasteners and canopy details on the *Dynavector* kit.

Modeling what might have been: TSR.2 in 1:48

By Robin Powell

TSR.2: a name to arouse passion in all students of aircraft history. It is an airplane of mythic proportions in Great Britain; capable of cruise at Mach 2 and capable of flying safely at supersonic speeds on the deck, its heavily-loaded 60-degree swept wings and long forward fuselage gave the impression of a bird of prey in mid-attack. All of this could be accomplished while carrying 6000 pounds of bombs in an internal bomb bay. In 1965, the entire programme was canceled in act of supreme governmental negligence.

Modelling this superb aeroplane has never been easy. It was many years before accurate drawings were available for pattern makers to follow. I remember many years ago struggling with the original *Contrail* releases in 1:72 and 1:48 trying to get it to agree with my idea of what it should look like.

At last, though, there is a 1:48 kit from *Dynavector*, and given the past record of kits from this manufacturer, I had no doubt that this would be a worthy attempt to capture this subject in scale.

Somehow this kit fits into a standard *Dynavector* box, though once removed it is not easy to fit it all back in! In 1:48, it is apparent how big an aeroplane the TSR.2 actually is. The main parts are moulded on three sheets of the customary white plastic, resplendent with the stunning surface detail that has become the *Dynavector* trademark. White metal parts include the cockpit detail parts, instrument panels, ejection seats, various air intakes and vents and a stunning rendition of the undercarriage. A large and beautifully printed decal sheet from *Fantasy Printshop* and the customary style instruction sheet finish the contents list.

The initial part break-out is as per the usual vacuform practice, but it is worth pausing to read the instructions again and consider the nature of the shapes in progress. The fuselage is broken down into a vertically-split forward fuselage and a horizontally-split main fuselage with a cut-out shoulder section for the single-span wing section to drop into. This means that you have long, wide and flexible parts which must not be distorted during assembly. The instruction give comprehensive advice on reinforcing the internal structure and I followed all of the recommendations, and then added quite a few more internal supports of my own. Cut out large pieces of plastic and just drop them across the internal corners and then douse the ends with superglue to stiffen up the shape the parts already have before stressing them out with the sanding operations. Also, rather than gluing narrow ribs along the inside walls, first face them with an extra piece of sheet plastic. This will avoid the position of the stiffeners being visible later through the model's skin.

With all the beefing up done, I sanded, cut and scraped in the time-honoured manner to the moulded-on demarcation lines. As I am used to with *Dynavector*, this resulted in a first-class parts fit. The undercarriage bays are supplied as vacuformed trays which fit inside the fuselage. It is worth some extra effort making sure that the main gear bays sit at equal angles as this will determine the angle of the main legs later. Once the bays were fitted covering the openings in the lower fuselage, I heavily reinforced the bay mounting with more scrap plastic and more superglue.

At this point the instructions suggest that the jetpipes be fitted, these being supplied in vacuformed halves of full depth. I decided on a different tack. Looking ahead to the painting stage, I could see that the bare metal area around the

rear fuselage would be much more easily masked if the fin and tailerons were separate, so I would need a repeatable method of attaching them. The fin would be easy, since a raised lug on the upper surface gives a good reference, but the tailerons need fore and aft plus anhedral reference. I decided on brass tube pivots, which would also allow posing of the surfaces later. These pivots would get in the way of the jetpipes but I felt that sacrificing some of their depth would be justified by the increased ease of assembly, so for now I left the jetpipes out.

Normally I fix small strips along the edges of the mating parts to align them on assembly but I found even slim, thin strips distorted the subtle curvature of the fuselage sides, so I cut them all off before gluing the top and bottom of the main fuselage together. I taped the halves together using the panel lines as guides. Once everything lined up across the join I ran Tenax along the join in between the tape strips. Once this had set I removed the tape and ran superglue around the whole joint. This gave me an invisible joint once sanded. The rear fuselage is now an open-ended box shape so again I added strength by dropping in beams to fit between the top and bottom surface from either end, gluing them where they fell and touched. This would help stop the flexing and associated joint cracking otherwise sure to occur.

Moving to the forward fuselage, having fixed the nose-wheel bay in place securely, I turned to the cockpit. Each crew station is built up on a vacuformed tray with white metal side consoles, rear bulkheads and instrument panels. What is provided is a fine start and very accurate, but the side walls looked a little bare so I dressed these up with detail from scrap plastic and fuse wire using as reference pictures from the wonderful CD-ROM issued by BAE Systems' North West Heritage Group. I also added some breaker boxes from a *Reheat* detail set and added cabling from fuse wire. I sprayed the interior in light grey with black panels and then gave the whole a dark grey wash before picking out the highlights in white.

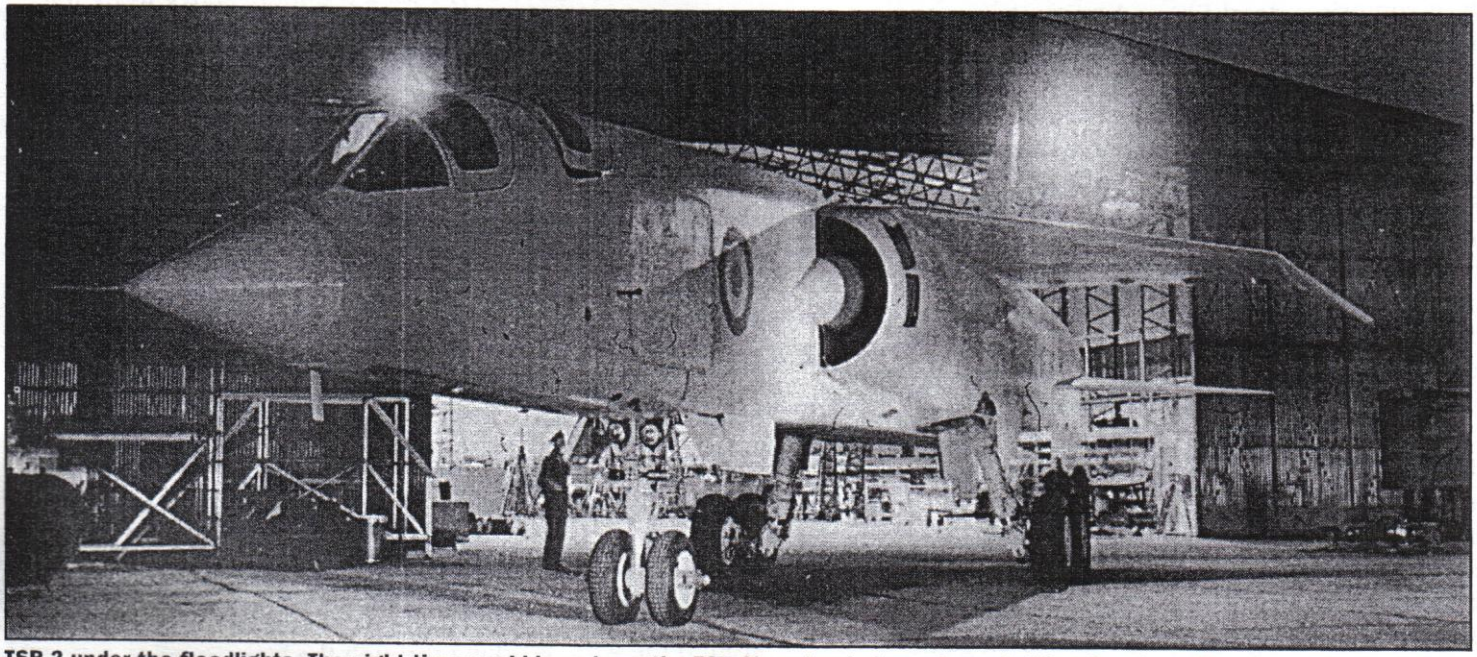
The ejection seats used in the TSR.2 were unique, and the metal items supplied in the kit are good representations, though a little plain. I used wire and scrap to add some extra features and then dressed them with the etched seat belts from two *Eduard Lightning* detail sets. Thus embellished, I thought the offices looked just fine and so I could close the forward fuselage... And remember, that this kit does not require nose weight.

Location of the forward to main fuselage is positive but it is still easy to get a banana plan view if the attachment procedure is not undertaken with requisite care. I taped, measured, stared, adjusted, tacked, stared and adjusted for a very long time. The panel lines are again the most valuable reference. I also kept trying the intake shells to the sides of the forward section to confirm the position was central. Finally satisfied I added more superglue and reinforcement strips.

Suddenly the model was big. In two pieces the fuselage had been easily managed but once at full length it needed a lot of bench space and handling it threatened eyes and face with the sharp point on one end. This became more dangerous once I fashioned a nose probe from music wire with a stainless steel sleeve. Very strong and very sharp!

The main wing section was next. As per the instructions I first fixed the lower wing half to the top of the fuselage cut-out, thus retaining the undersurface curvature and minimising the joint gap. The inside surfaces of the wing parts need reinforcing with the judicious use of thin spars, but remember to fix sheet plastic to the inside skin before fixing the spars or they will show through the skin once you start cleaning up the outside surfaces. Before fixing the upper wing skin onto the lower one, check the thickness of the centre section by laying a straight edge from the forward to rear fuselage. There should be no gap over the wing. If there is, add packing in the centre to keep the upper and lower centre section the right distance apart. I got this wrong and found at a later stage that my upper surface line dipped noticeably over the wing. I had to open up the wing leading edge joint and feed more packing into the centre section in the manner of endoscopy.

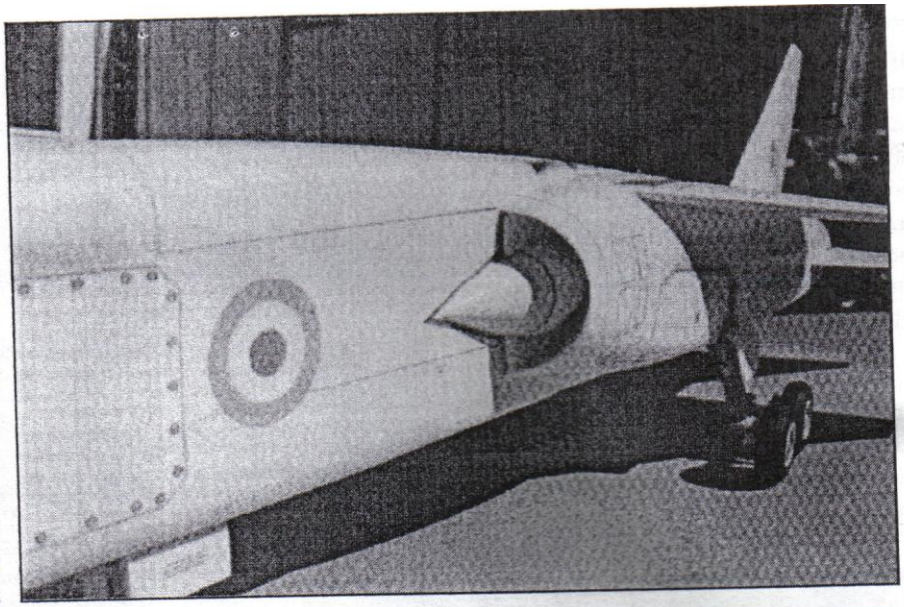
I could now fit the air intakes. The splitter plates are supplied as white metal items which fit above and below the half-bullets. The intake half-bullets are moulded integrally

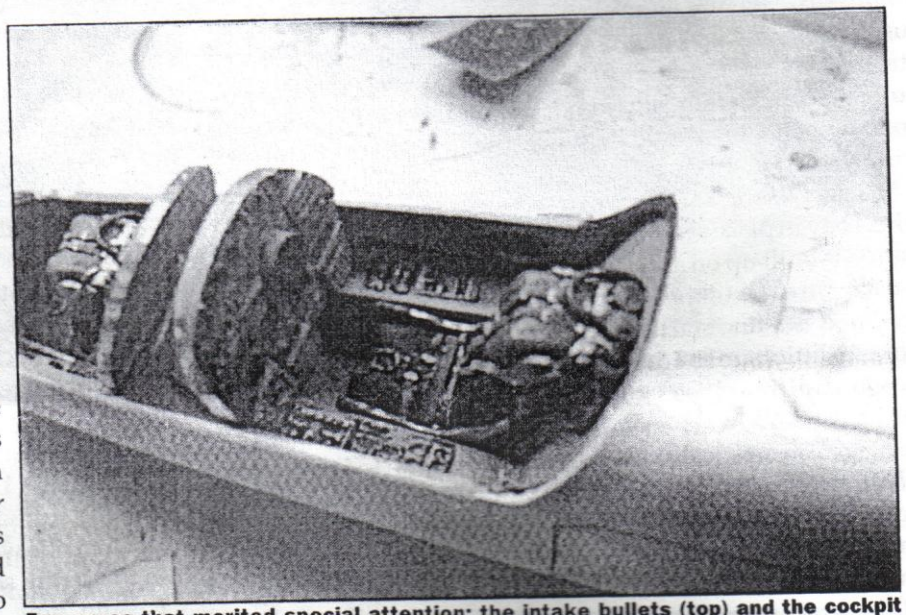


TSR.2 under the floodlights. The night time would have been the TSR.2's natural element, maximizing the aircraft's advanced avionics.

with the forward fuselage sides and they include some nice panel detail in areas inside the intake area. As this would be impossible to paint later, I sprayed the area with *Halfords* Appliance White and picked out the panel lines with dark grey wash, then painted the rear face matt black. Test fitting the intake skins confirmed a good fit, but gazing into them they looked too empty and the blank black rear face was too visible. What was missing was an intake liner, as the real intakes curve inward around the bullet rear to pass inboard of the undercarriage bays. I decided to make some.

Taking some .005 plasticard, I cut a 2.5 inch radius on one edge. I then taped the card around an empty Tenax bottle, put it into a coffee mug and filled it with boiling water. Once the water cooled, I removed the tape and now I had a curved piece which fitted into the leading edge of the intake skin. I tacked it in place with Tenax then poured Zap-A-Gap in between the two parts. I just had to trim all the excess plastic away, fill the leading edge join and I had a curved tapered liner. I painted the inside surfaces and fixed the intakes in place. Now when viewed from the front, all that is seen is a curved surface tapering away into the interior. Much better.





Two areas that merited special attention: the intake bullets (top) and the cockpit (bottom). Owing to the kit's design, these were easily dealt with.

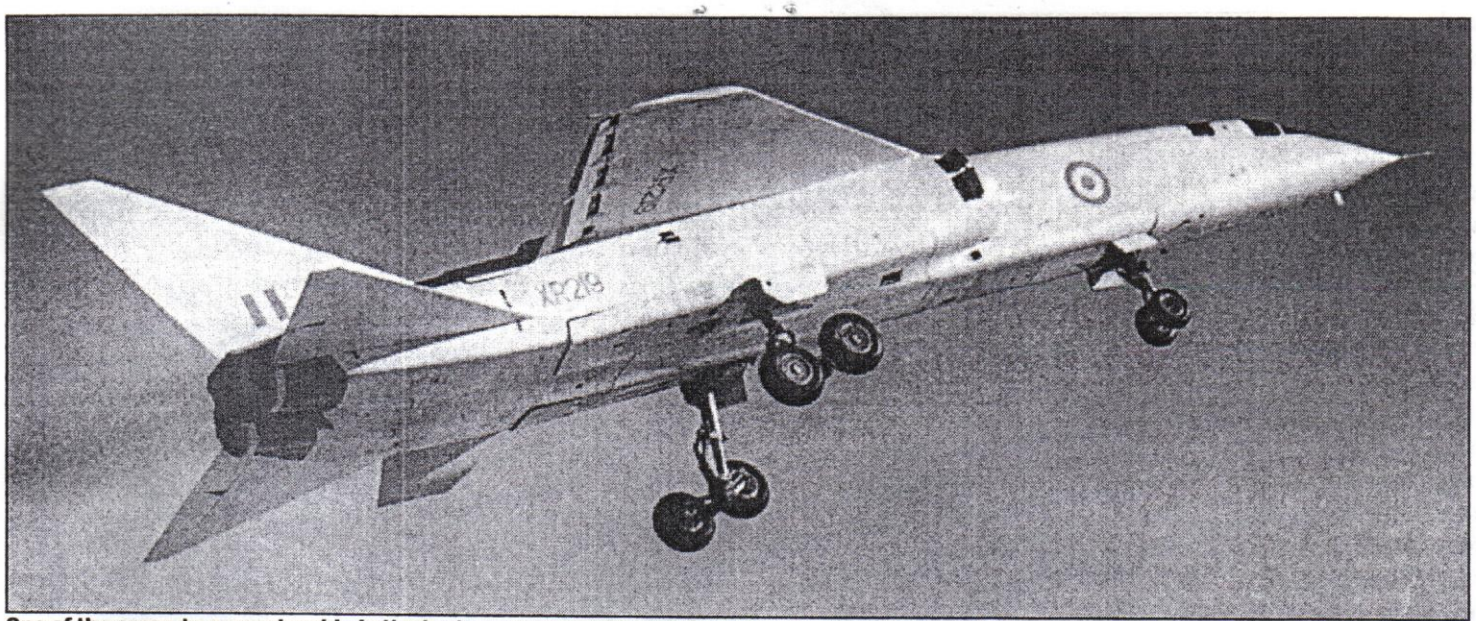
Time to close up the cockpit. I decided not to open the canopies on this model to preserve the clean lines. The inside of the canopy needed to be painted, though, or the white outside finish was going to be very visible. The whole cockpit area roof is supplied as a very clear part. *Dynavector* transparencies are crystal clear but the plastic is soft and easily scuffed, so once trimmed I dipped the clear part in Klear (Future) and allowed it to dry for a day. The subject of canopy framing was taking shape in my mind. I have been experimenting with a decal making package called SuperCal. Basically it comprises decal film, white or clear, which can be printed with an ink jet printer, and a sealer spray in an aerosol for waterproofing. After this the decals can be cut and used as normal. I intended to make exterior canopy framing using this process and so I decided to use it for the inside framing, too.

First, I had to develop a flat shape that would fit over the canopies. I put masking tape over the canopy and traced the shapes of the frames onto it. The I peeled it off and stuck the marked tape on a piece of light card. I put this on my scanner and produced a bitmap image. I pasted this as a background into Autocad 2000 and drew lines over the image. With the background stripped away I could scale the image to the same size as the original tracing. I could now clean up all the edges and fill the solid areas with black. I printed the decals, sealed them, and trimmed out the unwanted areas by scoring the surface with a No. 11 scalpel blade before wetting them. When used, they fitted the areas just as I wanted. I used strips of solid black trim film for the inside windscreen frames, and then filled in the remaining areas with matt black paint.

With all the above dry, I used 5-minute epoxy to fix the canopy in place and then used Zap-A-Gap around the seam so I could sand the edges flush with the fuselage.

One other area which I felt could benefit from some refinement was the wingtips. The kit wingtips are moulded in a flat symmetrical section, whereas the original has a pronounced leading edge droop. As I did not feel that modifying the kit parts would be that easy I made some new ones. After cutting out a rough plan shape from .080 card, I heated the leading edge with a hot air gun and drooped it over a piece of brass tube. I then carved, scraped and sanded until it fitted the main wing and I was happy with the shape. I fixed these in place with Zap-A-Gap before filing a slot in the trailing edge and letting in a piece of rectangular stock which I carved into shape for the fuel dump pipes.

I needed to fit and remove the tailerons and rely on their position and angle. Having assembled the upper and lower sections, I mounted a length of .009" piano wire in the pivot position. Next, I drilled the pivot points in the rear fuselage to a size to accept a piece of fine brass tube which would fit around the wire. Working through the large opening at the



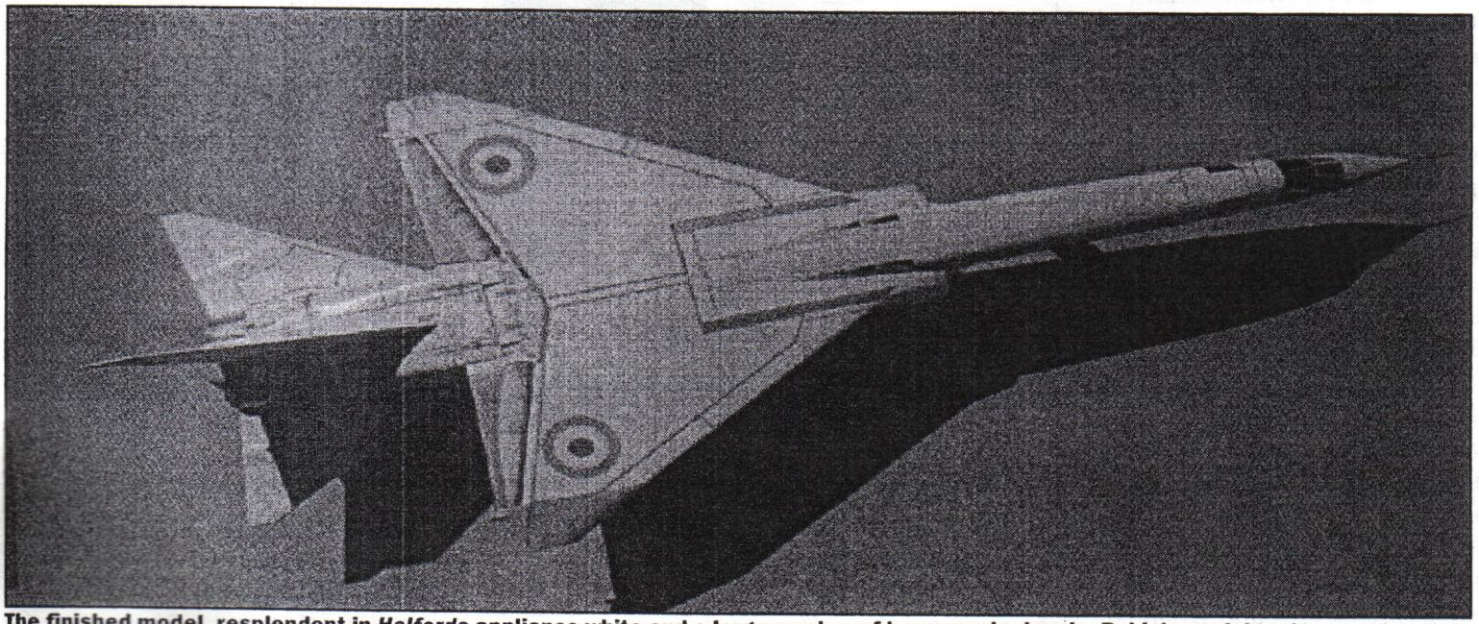
One of the areas to cause trouble in the test program was the landing gear, designed to operate from damaged or unprepared fields. On flight 5, pilot Roland Beamont almost lost control due to a vibration that was never quite resolved. Here, the unique offset struts are visible.

fuselage rear, I placed the tube in position and brought the taileron into position from the outside, securing it with card template jigs. I then tacked the tubes in place from the inside and gently removed the taileron. I dropped reinforcing webs in around the tube and gave each contact point a healthy dousing with more Zap-A-Gap. Once all was set I filed the end of the tube flush with the outside of the fuselage. I repeated for the other side and was rewarded with re-fitable, poseable tailerons.

Because the pivot tubes extended an inch or so into the rear fuselage, I had to shorten the vacuformed jetpipes and close the inner end with plastic sheet. I dressed the internals with some afterburner petals left over from a *Sol* Su-33 set. The central part of the rear fuselage in between the jetpipes is supplied as a metal casting which fits snugly around the pipes. Fixing these hot end parts in place finally removes the flexibility of the fuselage. Up until now I had been cursed with fuselage seams cracking and splitting. The very shape of the subject makes this almost inevitable, but I was getting tired of re-gluing and sanding the seams and repairing all the panel detail each time. Liquid cement or superglue, it made no difference until this last end was closed and suddenly the assembly became a rigid box-like structure.

After masking the air intakes and canopies, I primed with *Halfords* white and found lots of areas to tickle with Mr. Surfacer and my panel scriber to repair the damage I had inflicted during assembly. After repeating this cycle a few more times, I gave the model a coat of Appliance White. Then I masked the main airframe and gave the rear fuselage a coat of *Halfords* Nissan Silver. When this was dry, I polished it with Duraglit wadding metal polish. This, however, was just the start of the exterior finishing.

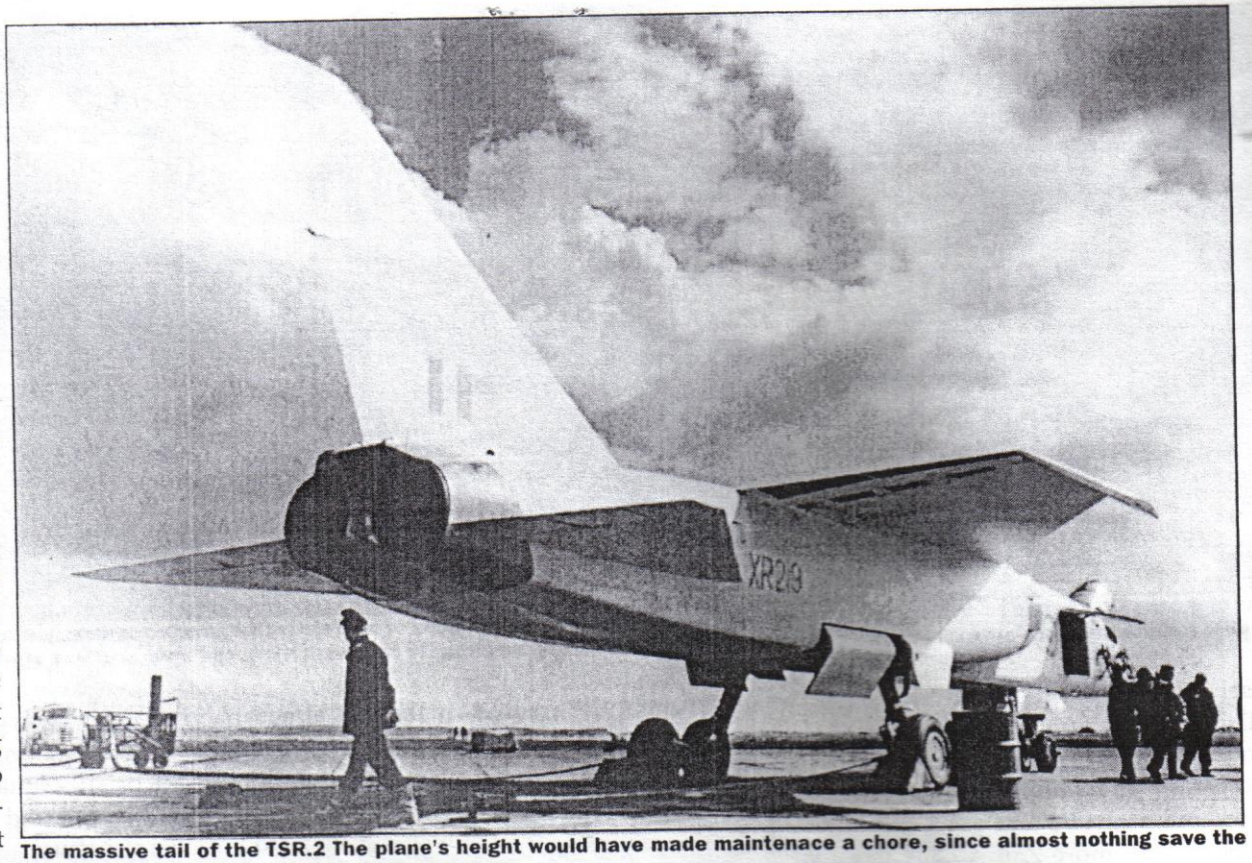
The TSR.2 prototypes were not just all-over white. They has dozens of very visible panels and panel fasteners, which really need depicting in 1:48. I decided to depict them with decals. It took a long time, measuring the model, constructing



The finished model, resplendent in *Halfords* appliance white and a large number of home-made decals. Robin's model took several awards at the 2001 Kickoff Classic.

the shapes, comparing with photographs and printing, trying, printing and trying again until I had a sheet of decals which covered a lot of the airframe and all of the canopy frames.

With all of my decals in place, I turned to the *Dynavector* ones. These are crisp, sharp, opaque and very thin. They are also tough to handle and tricky to get off their backing sheet. They also do not like moving once they set down so I recommend copious use of Micro Set while attempting manoeuvres. The sheet includes the faded national markings (in very convincing shades), the pale blue walkways and a mass of pink and blue stenciling. There is a couple of evening's worth of decalling here.



The massive tail of the TSR.2 The plane's height would have made maintenace a chore, since almost nothing save the landing gear was within reach from the ground.

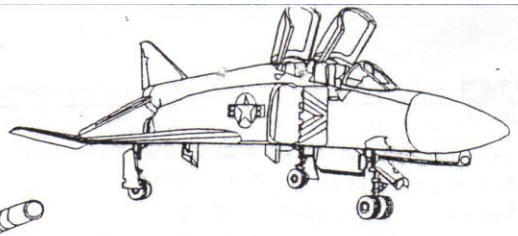
One word of caution though: there is no spare length of blue walkway supplied. You need every millimetre of that which is supplied. I know, I must have wasted some because I had to make up a few odd lengths from the leftover XR220 serials!

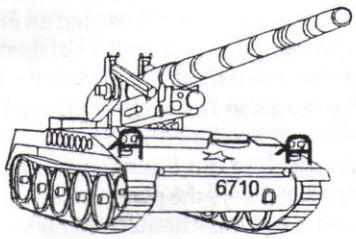
I masked off the rear fuselage bare metal areas and gave the whole model a coat of *Humbrol* Satin Cote. I know that XR219 started off glossy but it did get remarkably weathered during testing and I wanted to depict a "live" aeroplane, not a museum exhibit. With the spraying all done, I fixed the fin in place with epoxy and slid my tailerons into place.

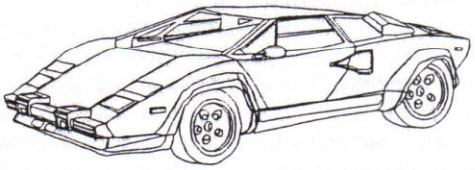
Boy, oh boy, have *Dynavector* gone to town on the undercarriage! There are ten exquisitely cast parts in each main gear leg assembly. Brake calipers, torque links, scissors links, all absolutely matching my references. The kit even includes the extra damper legs added to XR220 to cure the leg resonance found when landing XR219. I added brake lines from fuse wire but everything else you see in my pictures comes with the kit. The plate cast on the top of the main legs fit into recesses in the main gear bays and gives just the right angle. I fitted the main legs to the fuselage, then assembled the equally fine nose gear before fitting the beam with the main wheels so that I could sit the model down with all the wheels on the ground while 5-minute epoxy set it all up. With the fitting of the gear doors I found myself looking at a 1:48 TSR.2 XR219. For me, at least, she lives again.


TSR.2 XR219 pulls away from the camera ship on one of her 24 flights.

This is not the easiest *Dynavector* kit to build. It is the hardest. It is not a quick build. This is not *Dynavector*'s fault. The size and subtlety of shape of the subject make it inevitable. What is remarkable is that this kit has the shape of the aeroplane absolutely nailed. It might take a modicum of effort, but seeing this form take shape in your hands repays this effort many times over. Many people have tried over the years to capture this shape but *Dynavector* has done us all proud with this one. The detail in the surfaces and the castings, the quality of fit and the overall accuracy are all superb. I can pose my model in front of photographs of the original and they match. You cannot ask for more.







IPMS
CENTRAL VALLEY SCALE MODELERS
14th Annual Scale Model Show and Contest

August 11th, 2002

Special Theme:
W W II Pacific
Theatre Operations
1941 - 1945

Raffles & Special Awards as follows:

Best of Show, Senior
Best of Show, Junior
Best of Show, Aircraft
Best of Show, Armor
Best of Show, Civilian
WW II P.T.O. Award

Holland Elementary School Cafeteria
10AM to 4PM

JUNE MINUTES

At June's meeting, Steve Travis reported that he and his wife Anita delivered the first 25 models in our Veterans Administration Model Program to the Palo Alto VA facility this month. In July they plan on taking 25 more to Martinez to keep our program rolling. Special thanks to Steve, Anita, John Heck, Frank Beltran and the other volunteers who have enthusiastically expanded our efforts!

In model talk... Bert McDowell is effusive in his praise for *Tamiya*'s new 1:700 German battlecruiser Prinz Eugen. Bert had the parts in the box, plus a promise for a Tom's Modelworks brass set for the ship, as well as the news that the Tom's floater net baskets for destroyers are being reduced to 1:700. Ralph Patino's massive scratchbuilt 1:16 Scammel tank transporter is the first model to put him in the hospital! Ralph lost the shaft of a straight pin that he was robbing the round end for, and eventually stepped on the pin, resulting in surgery and a temporary stay in a wheelchair! As for his massive tank transporter, Ralph copied the *Airfix* 1:72 kit; the hardest part, he contends, was making the fenders and roof. Randy Ray brought in the new *MAC* kit of the V-1/Fi 103, which he says looks more accurate on the sprues than the *Tamiya* 1:48 kit. Postoria Aguirre, who has a passion for all things American, wheeled and covered in chrome, picked up a Franklin Mint die cast of the 1951 Buick LeSaber, which he says GM executives drove for many years and which introduced an amazing number of new features. P.A. also advises car builders to look at promotional material on eBay as a source for reference material; his promotional library is growing just as fast as his bank account is shrinking! Vladimir Yakubov says his *Trumpeter* Tu-16 will have a glass nose and lots of detail parts taken from the inferior *Red Hurricane* kit of the same aircraft. To raise money for the San Jose Police Department Historical Society, John Carr worked with *Classic Metal* to produce a die cast 2001 Crown Victoria is SJPD colors. John's collection also includes the SJPD Crown Victoria he built in plastic and a die-cast Milpitas Police Department cruiser from *Car-O-Rama*. Roy Sutherland's Fw 190A-7, which is documented elsewhere in this issue, won second place in its category at the Planes of Fame contest in Chino. Roy is almost ready to paint his *Airfix Spitfire* 22, which sports numerous resin improvements from *Cooper Details*. Jim Lund says the Fokker F.32 was the "pinnacle of aero achievement," according to Fokker's own press for the plane. Mike Hairrel carved the master for Jim's vacuformed kit, *Aeroclub* provided the engines, and Jim made his own decals for this golden-age airliner. Greg Plummer found a lot of his old models while moving to his new house, including a gloss gray *Pyro* Stegosauraus that he built when he was 12 and a purple, pink and white '58 Chevy from *AMT* that dates to his freshman year in high school. Braulio Escoto's Moffett Field collection includes six *Hasegawa* F11F *Tigers*, each depicting a squadron that saw service from the station. Gabriel Lee is building a 1:72 F-86F as a Venezuelan version, and he's also working on an M151 MUTT mounting a 105mm recoilless rifle, another armed vehicle employed by the Venezuelan armed forces. Vince Hutson is planning to use the *Jerry Rutman* interior for his 1:32 *Revell* P-40E; Vince had the basic parts of the cockpit painted and almost ready for installation. Vince is also eager to try out the flexible silicone 1:32 and 1:48 seatbelts from *Cutting Edge*. David Newman used the *Broplan* vacuform kit to build his PZL P.1, and made his own decals with an ALPS printer. David created an effective "corrugated" texture by applying striped decals, then painting over them. David also took a Czech resin kit of the Fokker D.VII and finished the model in American markings, representing one of the captured machines used by the fledgling Army Air Corps and operated out of Chrissy Field in San Francisco in the 1920s; David says the plane could have been flown by "Hap" Arnold long before he attained his stars. Lou Orselli has never shied away from a vacuform of a favorite subject, and his *Falcon* Reggiane Re.2005 shows he can make a vacuform kit work well; the cast metal gear were the only parts that caused Lou any trouble. Of course, now that Lou has finished his vacuform kit, an injection molded version of the same plane is coming out. Thanks, Lou! Also new on Lou's flightline are an *A-Model* I-153, which went together well despite the soft plastic it was molded in, an *In-Tech* Cessna 172, which may have an incorrect front end, and a P-26 *Peashooter* built from the *Revell* kit. Lou's also working hard on a *Formaplane* IAR-80 fighter. Mike Burton hoped to finish his "watchdog" RB-47H for the contest this month, but the 1:144 *Hobbycraft* kit has taken a little more time than he'd hoped. Mike was also trying to get a *Rareplanes* F-86L done for his "Dog Sabre" collection but came up just short. and his *Heller* F-86F, which will provide comparison as a stock *Sabre*, is nearing its turn in the spray booth. Another "pet show" entry that didn't quite make it is Mike's *KP* Mil-4 "Hound," which Mike really is having a good time with. He's also got a *Hasegawa* YS-11 in 1:144 progressing, to be finished as one of the two prototype aircraft. Bill Ferrante's *Monogram* F11C-1 Goshawk is finished in its colorful pre-war livery; Bill used all the decals except for the "High Hats" emblem. The most frustrating part of this old kit, says Bill, is the complex rigging and the fact that all 28 F11Cs built were different, making research a pain. Ben Pada snuck in two of his models, *Tamiya's* F4F-4 *Wildcat* and a *Hasegawa* A-4 *Skyhawk* finished in Royal Australian Air Force colors. Ron Wergin built two Zeroes in 1:48, one from *Fujimi* and the other from *Tamiya*. Ron's diverse pursuits also included a *Tamiya* Panther, which has wheels and tracks form an *Academy* kit, and a *Tamiya/Skywave* O-Class destroyer in 1:700. Laramie Wright says *DML*'s Panther A is a beautiful kit, which is very detailed and fits well. He's occupied currently putting all the track shoes on. Laramie's also working on turning *Italeri*'s "Marine Sherman" into an accurate M4A2; he's moved the lifting rings, rebuilt the loader's hatch, and made real wood add-on armor filled with "concrete" made of Milliput. Frank Babbitt took several years to build his *Airfix* BAC *Strikemaster*, but it won him a first place at the Santa Rosa contest. Frank painted the model in Kuwaiti colors and outfitted it with a vacuformed canopy and a resin interior from *Obscureco*. Alan Steward made a great showing at his first meeting, bringing a Jagdpanther with a hand-applied zimmerit pattern, a Panther D early model as it would have appeared at the Battle of Kursk, a Panther A and a Panther G with some more zimmerit. Alan's also building a StuG III to represent one of the three sent to North Africa and fitted with special air filters, and he's

in the starting stages of building the Sturmtiger that currently resides at the Aberdeen proving grounds. Chip Harrison built his *AMT* A-20 as an invasion-stripe bedecked veteran of 500 missions. His *Accurate Miniatures* Yak-3 came out to his liking, and for a break from the 1:48 stuff, he knocked out *Tamiya*'s N1K1-J *Shiden* over a weekend. Jim Lewis says that, if you take your time with *Skybow*'s M38A1 Jeep, you're going to get a good model. Jim is building his as it would have appeared in 1959-1962 in West Germany with the 7th Army. Jim replaced the headlights on the Jeep with *MV* lenses. Kent McClure built a bunch of Neanderthals in 20mm (not a diorama of the club, he insists), some 25mm big game hunters in rain gear, and some figures for "Deadlands," a wild west-with-zombies game. Cliff Kranz is backdating *Academy*'s M151A1 to the "death jeep" he drove in the service. Mark Hernandez brought is some impressive toys in 1:16 from 21st Century: a Tiger I and an F4U *Corsair*. And the model of the month goes to... Chris Bucholtz for his 1:48 P-47D-30 *Thunderbolt*, built from the *Hasegawa* kit. The model has a *True Details* cockpit and an engine and wheel bays from *Aires*, and was painted using *Model Master* metallizers and *SnJ*. Chris applied the decals he researched for the 1998 nationals; now, the model is being shipped to the pilot of the real plane for his 85th birthday present!

Our contest in June was the Pet Show, open to any dog- or cat-themed subject. Mike Burton had a pair of 1:72 "Sabre Dogs," one built from the *Airfix* kit with *SuperScale* markings and the other built stock from the *Hasegawa* kit. Mike also grabbed the *Hasegawa* kit when it came time to build his "Able Dog" AD-6 *Skyraider*, which he says is was a fun build. Frank Beltran toiled away on *Nitto*'s 1:48 F-86D "Sabre Dog," finishing it with *Tamiya* acrylic paints and mounting it on a clear acrylic rod over the engine from a second kit to create a very nice presentation. Cliff Kranz extended the schnorkel on his *Nichimo* Leopard tank, depicting his cat just before it took a dip in the water. Cliff also built the old *Monogram* F6F *Hellcat* and outfitted it with decals from *SuperScale*, and he dressed up a 1:72 *Hasegawa Tomcat* with similar aftermarket decals. Chris Bucholtz kitbashed the *Academy* and *Hasegawa Hellcats* to come up with his 1:72 VF-16 F6F. He also added a new cockpit and engines to the old *Monogram* 1:72 *Tigercat* to build a Korean War F7F-3P. Frank Babbitt used the *Hasegawa* kit to build his *Jaguar*; he dressed up the model with some photo-etched parts, then finished it off in a Nigerian paint scheme. Laramie Wright used the *Academy* F4F-3 to depict Hank Elrod's F4F-3 *Wildcat* from the Battle of Wake Island. Kent McClure took the contest theme a little seriously and modified plastic toy cats into a P-40 "Kitty-hawk," the U.S.S. "Kitty-hawk," and a German "Kitten-Krad." Jim Priete backdated the *Hasegawa* F4F-4 into an F4F-3 and painted in *Floquil* paints which shifted colors while drying, resulting in a good appearance after a few tense hours. Jim Lewis built his *Tamiya* M8 Greyhound in 1998; he says the kit lends itself to detailing. And the winners were: In third place, with an *ICM* Lynx, was Laramie Wright. Laramie substituted *Tamiya* pioneer tools for the kit items and tow cables, hatches and other details to the kit; he also lopped off the tip of a finger while building it! In second place, with his *Hasegawa* F4F-4 *Wildcat*, was Chris Bucholtz. Chris built the Midway *Wildcat* with the aid of its pilot, Tom Cheek; the full story can be found in the May Styrene Sheet. And in first place, with his M20 Greyhound "Double Dare," was Jim Lewis. Jim's model was completely rebuilt after an accident; the real M20 that served as a prototype for Jim's model is restored and in running condition in North Carolina.

SVSM BOOKSHELF

Spitfire: The New Zealand Story
By Gerard S. Morris
Copyright 2000, Reed Publishing

Another book brought over from the small and civilized land of New Zealand, this volume is a gold mine for anyone interested in the *Spitfire*. The photos include numerous examples loaned from private collections (including some obtained from the widows of Kiwi aces Alan Deere and Colin Gray), and even the casual reader will marvel at the sight of images of this famous plane that have gone 60 years before finding their way into print.

Particularly interesting to this reader is the section on Deere's three "Kiwis," which includes photographic evidence that the Kiwi logo was on both sides of the aircraft, and that Deere's personal account of serial numbers and the dates his personal aircraft were lost was very much in error. The author uses the squadron log (unavailable to Deere when he wrote his memoir) to positively identify the aircraft. Your reviewer can cite one 1:72 *Spitfire* model that could have very much benefited from this book during its construction.

Another high point is an exhaustive accounting of presentation *Spitfires* presented by New Zealanders. All 25 are accounted for, and a complete combat history is provided for 21 of the 25, along with photographs of the aircraft in many cases.

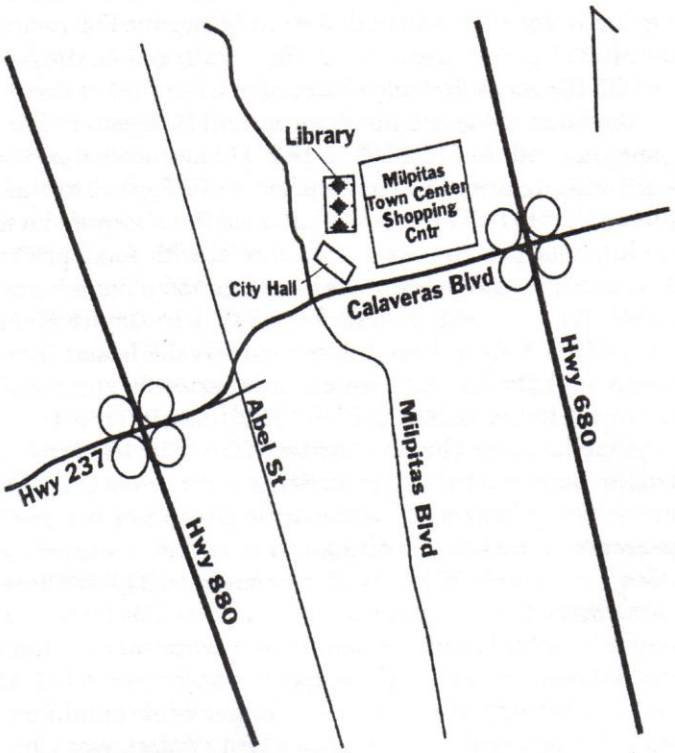
Another high point comes midway through the book when the reader is treated to a series of images of *Seafires* produced in 1945 both aboard ship and at land bases. *Seafires* are notoriously difficult to find pictures of; this book has several photos that could lend themselves to a good model. There's a color section, but most of the images are post-war; one that isn't depicts Air Vice Marshal Keith Park beating up the airfield of Malta in 1943!

Also included are exhaustive histories of the aircraft of 485 Squadron RNZAF, along with pilots' reminiscences and , of course, more unique photos that have never before seen the light of day. The last section covers the *Spitfire*'s history as a warbird in New Zealand, an unusually fertile ground for the restoration and operation of old warplanes.

If the book has a weak spot, it's in the text; typographical errors are sprinkled about, and the prose itself could have used a bit of tightening up. Clearly, Morris is a great researcher but only a fair writer, and his editor let his great research work down by not taking a firmer hand with this big (376 pages!) book.

Still, as they say about foreign language monographs, "the pictures are in English." If you're a *Spitfire* nut, this is one worth seeking out.

—Chris Bucholtz



Next meeting:

7 p.m., Friday, July 19

at the Milpitas Public Library 40 N. Milpitas Blvd.

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