

First of the bent-winged birds: XF4U in 1:72

By Barry Bauer

†First in a Series†

The Chance Vought F4U *Corsair* is considered by many aviation historians to be one of the great, if not the greatest, combat aircraft in history. Its combination of outstanding performance, operational versatility and durability made the *Corsair* a formidable opponent for the best pilots from Japan, Germany, North Korea, Egypt, El Salvador and competitors in 55 years of air racing throughout the U.S.

The *Corsair* was known affectionately by those who flew

it as the "Hog," because of its big, flat, radial-engined nose. It was also known as the "Bent-Winged Bird" for obvious reasons, and (according to the U.S. press) by its ground-bound adversaries as "Whistling Death" because of the distinctive sound made by air passing through the wing-root oil coolers as it dove to deliver ordnance. Whatever it was called, the F4U made a name for itself wherever it served.

Development of the *Corsair* began in 1938 in response to a Navy request for new monoplane fighter capable of beating the best land-based fighters in the world. A new, twin-row radial engine, the Pratt & Whitney XR-2800, rated at over 1800 hp, was mated to a streamlined monocoque fuselage. The wing was a unique inverted gull-wing type designed to maximize aerodynamic efficiency and allow the fitting of a huge 13 foot, 4 inch-diameter constant-speed propeller by Hamilton Standard. This efficient arrangement minimized the length of the landing gear legs to enable the *Corsair* to withstand the rigors of carrier operations.

From the very first flight it was obvious to everyone involved in the project that the *Corsair* was going to be a winner. On an early test flight the prototype attained nearly 405 mph

in level flight. This not only surpassed all existing navy speed records, but also was faster than any land-based fighters then in service worldwide.

After initial flight tests confirmed the advanced performance flight capabilities of the basic design, the process of refining the *Corsair* into an operational naval fighter began.

Major changes to the design included moving the cockpit almost three feet farther aft to fit a fuselage fuel tank over the center of gravity. The Navy called for deleting the guns above the engine cowling and upgrading the armament to six wing-mounted .50 cali-



The first *Corsair* had different armament, a cockpit set farther forward, and small bomb bays in the wings for air-to-air mines. Still, there's no mistaking the prototype as anything but a *Corsair*.

ber Browning M2 machine guns. Finally, the bomb bays in the outer wing panels were eliminated because of a change in tactics.

Official Navy acceptance trials proceeded smoothly throughout 1941 and 1942. The new *Corsair* met or exceeded all required specifications. (During the '20s and '30s Vought had built a series of biplanes also called *Corsairs*.) Besides the normal minor handling idiosyncrasies, the only significant difficulty encountered during the Navy trials was in carrier take-off and landing tests. These trials were carried out by VF-12 aboard the U.S.S. *Sangamon* (CVE-26.) Although the F4U completed all the carrier trials when flown by highly skilled and experienced test pilots, it was considered too difficult a task for the average service pilot. The less than satisfactory results of the trials led to further modifications to the F4U. Among the complaints listed by test pilots were poor visibility over the long nose and a drop in the left wing at low speeds on final approach. Correcting these deficiencies involved raising the pilot's seat by seven inches, lengthening the tail wheel strut and adding a small spoiler to the leading edge of the right

Continued on page 12

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

This month's meeting will feature the not-an-auction. Go ahead and bring your models for the display table, but be aware that we're not going to have show and tell. The night's focus will be on not auctioning off models to benefit the club and the Veterans' Hospital model drive. To get into the not-an-auction, be sure to bring at least one model or hobby-related item to be not-auctioned off. The editor actually went out and bought things to donate to this event; there will be some good things for the 1:48 builder on that table! Full instructions are in the October Styrene Sheet, and if you're confused, just watch the action (not auction) and join in.

Now that the double talk for the month is over, the editor thought he'd mention a contest category that people in this club could be participating in more, at least at our event. It's being brought up because people simply don't participate, but because people may simply fail to realize they have entries for this category. I'm speaking of the collections category, which has seen a resurgence lately but which could become really big if people thought about it differently.

A collection doesn't have to be purpose-built for the contest. The best collections tend to be models that were entered individually over a period of years and were later grouped as a collection. Barry Bauer's *Spitfire* collection from a few years ago is a good example. Barry didn't sit down and build a collection; he built one model at a time before it occurred to him he had a collection entry.

The editor was looking at his model case and discovered that he's close to having some collections—Korean War aircraft, British planes flown by foreign pilots, and so on. It takes a little creativity and historical knowledge to devise a theme like these, but often that's the only effort still needed to finish a collection entry.

The great thing about this is that it gets more models on the table for people to see without forcing you to build specifically for the contest. Recent standouts have run the gamut of subjects—Fleet Air Arm aircraft, Civil War ships, Desert

Storm British Armor, '34 Fords. All that's required is a theme and five models which are probably already finished. What could be easier or more fun?

The editor and the president both went down to OrangeCon last month, which had 390 entries and a big number of familiar faces. The Best of Show was an old *Revell* U.S.S. *Olympia* that had been brought up to modern modeling standards, and then some! The level of modeling was great; Mike Laxton (who usually comes north to our show) collected enough plaques to re-shingle his roof.

Speaking of contests, if you want to sponsor an award at the Kickoff Classic, time grows near for you to get your money in. Talk to Brad Chun about this; categories are not yet set and you can target your sponsorship where you want it to go. This year's event theme touches on the years 1960-1963, providing a wide assortment of subjects that will qualify for the special awards. Car model years will extend to 1964—after all, the model year began in fall of 1963, didn't it?

Finally, thanks go to our writers for this issue: Barry Bauer, Brad Chun, Mike Burton, and Harold Offield, for coming through for all of us. Hopefully, we can start getting these stories on our website; that way, our writers can get the kind of national and international acclaim the way they deserve to get it. Thanks, guys!

—The Editor

CONTEST CALENDAR

November 11, 2000: The Antelope Valley Group hosts its **Fourth Annual Contest** at Antelope Valley College in Lancaster, California. For more information, call David Newman at (661) 256-6359 or e-mail him at dnewman@as.net.

November 18, 2000: IPMS/Mt. Diablo hosts its **annual contest** in Vallejo, California. For more information, call Chuck Speir at (707) 645-0231 or e-mail him at sjshark2@ix.netcom.com.

February 24, 2001: **Silicon Valley Scale Modelers** host the **eighth annual Kickoff Classic** in Milpitas, California. This year's theme is "Camelot, 40 years after: 1961—1963." For more information, call Chris Bucholtz at (408) 723-3995 or e-mail him at bucholtzc@aol.com.

March 17 and 18, 2001: The **Southern California Area Historical Miniature Society (SCAHMS)** hosts the **17th Annual Historical Miniature Exhibition and Competition** at the Hilton Hotel/Orange County Airport. For more information, call Jim Sullivan at (714) 593-9071 or Jim Hill at (714) 774-4076.

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STYRENE SHEET

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Eyes of the Japanese Army: Hasegawa's Ki-46

By Chris Bucholtz

When it came to high-altitude, high-speed long-range reconnaissance, the Ki-46 was second to none in World War II. Flying at 35,170 feet at a top speed of 375 mph, the Ki-46 operated with impunity over Southeast Asia for the first part of the war until the arrival of the *Spitfire* Mk. VIII in late 1943 and the introduction of the *Mustang* and *Thunderbolt* earlier that year. Even after these fighters arrived, it took a careful bit of piloting to catch and down the "Dinah," as it was code-named by the allies, and it continued flying reconnaissance missions over B-29 bases in the Marianas and over advancing Russian troops in Manchuria up to the closing days of the war.

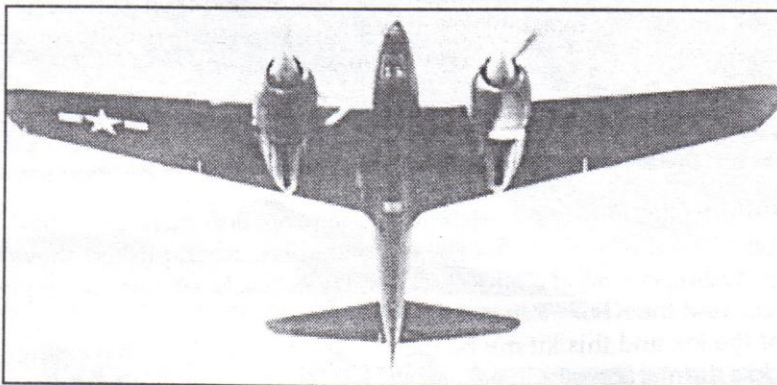
While most IJAAF aircraft were designed with the pre-war expectation that the next opponent would be the Soviet Union, requiring short-range aircraft suited for cold weather, the Ki-46 was designed with a realization of the vastness of the potential battlefields of future wars. A requirement was issued for a plane that could remain aloft for six hours at a speed of 249 mph was issued, and Mitsubishi designer Tomio Kubo was able to draw on his company's work on twin-engine types to produce a design with a narrow fuselage and thin wing section. This aerodynamically revolutionary aircraft was the subject of extensive wind-tunnel tests, and getting it just right took time. The first plane was not finished until November 1939, two years after the requirement was issued.

Despite engine difficulties, the Ki-46-I was still faster than the yet-to-be-delivered Ki-43 fighter and the A6M2 Zero, and the Army was enthusiastic about the aircraft. Further mechanical teething problems dogged the plane into 1941, including frequent vapor locks, overheating and landing gear collapses. Most of the difficulties were overcome, and the Ki-46 took an active role as tensions boiled over in the Pacific.

In July 1941, the Ki-46 began operations in China, easily eluding the outdated Chinese fighters tasked with intercepting it. On Oct. 20 and 22, 1941, a Ki-46-II overflew Malaya and Singapore, mapping the territory in advance of Japanese thrusts into these areas. Again, British fighters were impotent to stop these flights. The performance of the Ki-46-II was so impres-

sive that the Imperial Japanese Navy, whose war with the Army was nearly as bitter as its war with the Allies, negotiated the acquisition of a few aircraft. Navy Ki-46s flew regular missions over Northern Australia from bases in Timor, and the Army flew as far west as the Bay of Bengal.

The arrival of the *Spitfire* V and the P-38F caused some losses and hastened the introduction of the Ki-46-III, with the smoothly-faired forward fuselage and upgraded engines. The Ki-46-III regained some of the type's superiority, but the sheer numbers of advanced allied fighters now opposing it robbed Japanese pilots of their earlier sense of invulnerability. An earthquake that severely damaged the Nagoya plant where the planes were made, and in desperation the Ki-46 was



The Dinah was attractive from all angles. Here, a captured Ki-46-II poses for the cameras. Note the camera ports in the nose and at mid-fuselage.



A candid shot of students at the Tokorozawa Army Air Maintenance School with the Mitsubishi Ki-46-II for which they are responsible.

converted into a night-fighter and interceptor.

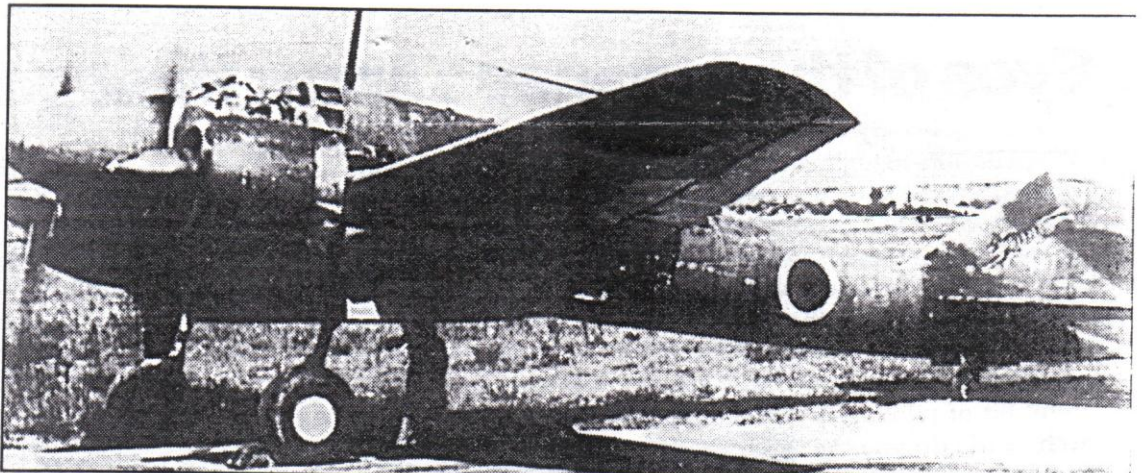
Despite its late-war losses, the "Dinah" was still among the finest reconnaissance aircraft of the war when hostilities ceased. As if to punctuate its career, two Ki-46-IVs made a flight in February 1945 that spanned 1,430 miles at an average speed of 435 mph—a remarkable feat for any plane of that era.

It is telling that the Luftwaffe tried repeatedly to gain a manufacturing license to build the Ki-46 for its own use.

Hasegawa has been on a run of releasing all the Japanese twin-engine combat types, including the Ki-45 "Nick," the P1Y "Frances," the G3M "Nell" and the Ki-67 "Peggy." The Ki-46 is the most attractive of the lot, and this kit may be the nicest of the recent run of kits from *Hasegawa*. The parts breakdown indicates a Ki-46-III is on the way, too.

The interior has more than your typical *Hasegawa* kit, but there's still room for improvement. The cockpit contains a seat with a rear bulkhead, a control wheel and an instrument panel (details provided on a decal). The observer's position has a seat, a radio and a rear bulkhead. There's some stringer and former detail on the fuselage sides, but it's peppered with ejection pin marks.

This cockpit fits inside the fuselage halves; because of the extensive glazing, these look very odd at first. The nose is a separate section that mates neatly to the fuselage at the wing



The leaping tiger on the tail indicates this Ki-46-II belongs to the 18th Dai Shijugo Chotai. These markings are in the kit. This unit used a colorful reddish brown and green camouflage pattern.

The propellers have some flash and need to be cleaned up; once this is accomplished, they slide into polyvinyl caps in the engine crankcase and are topped with long bullet-shaped spinners.

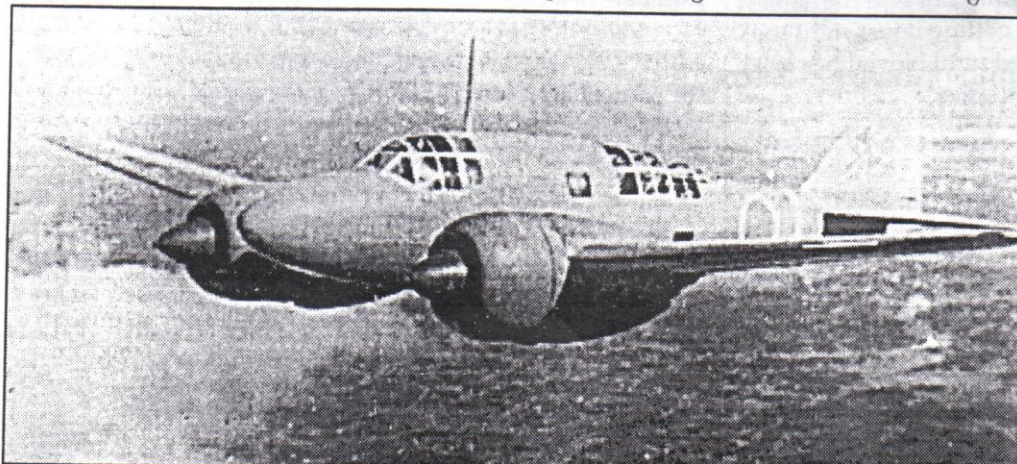
The landing gear have single-piece struts with separate retraction struts. A single ejection pin mars each strut, and while not impossible to fix, they are in a tricky spot that will require care. The wheels also have two ejection pin marks, but these are entirely on the tire section, making them salvageable (as opposed to those wheels that have pin marks straddling the tire/wheel juncture). The landing gear doors also have pin marks on their inner surfaces, but at least there's no detail in this area that would be ruined by fixing them.

Once the gear's on the plane, it's time for the transparencies, and there are lots of them. The windscreen, center section and observer's section are separate pieces, which will necessitate some careful sanding and blending. Other small windows go into the nose, belly and sides of the model; these might be best left off until after painting. An antenna mast and DF "football" are included as options; my football had a big sink mark at its base.

Decals allow you to build five machines. The most colorful overall are the IJA Green over gray planes from the 81st Sentai. The kit gives you tail markings for the First, Second and Third Chutais; the first Chutai includes a line of stars representing successful sorties. The two other planes represented are overall IJN gray-green; one belongs to the 2nd Sentai, and

the other to the 18th Chutai Independent Flight. The last machine has a leaping tiger on its tail. As is usually the case for *Hasegawa*, the decals are a little thick but are printed beautifully.

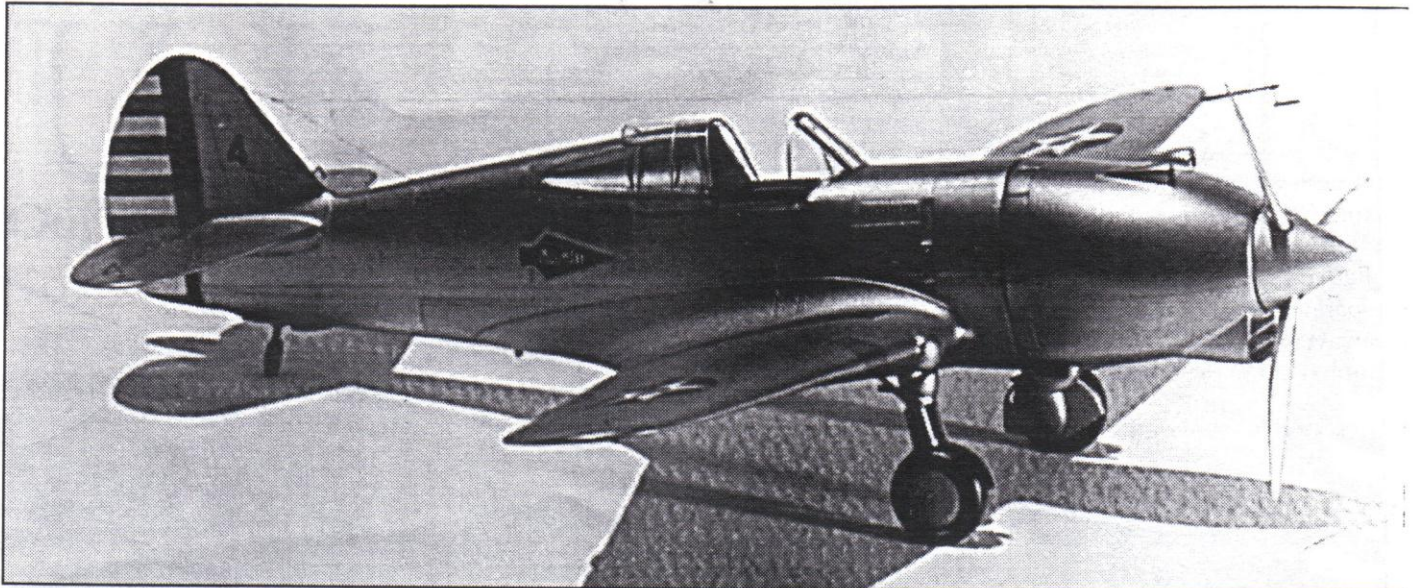
Despite the minor niggles identified in this review, this really is a splendid little kit. *Hasegawa* has been good to us multi-engine prop fans over the last few years, and this model is further evidence that the trend has not come to an end. Well done, *Hasegawa*!



A Dinah of 81st Sentai dashes toward Allied lines over Burma. The *Hasegawa* kit includes decals to build planes from all three Chutai of this unit.

join line. A faint sink mark mars the nose pieces, but this can be corrected with a bit of filler and sanding. The wing itself is a nice bit of construction, with the nacelles provided as halves that go on the top and bottoms of the wings. A small bit of wheel well detail is included on the bottom of the wings. The panel line detail is recessed and is very crisp.

The engine assembly recalls *Hasegawa's* recent *Beaufighter*: a row of cowl flaps goes on first, followed by a fairly nice engine and crank case. Over this go the close-fitting cowlings.



Harold Offield's beautiful model of the ill-fated XP-42. Harold used a Hobbycraft P-36 as the basis for his conversion project.

A Curtiss fighter that never was: XP-42

By Harold Offield

The Curtiss XP-42 was an attempt to streamline the airframe of a radial engined aircraft. Several different shaped cowlings were tried. The last design was very similar to the P-47 cowling. The one I've built has the bullet shaped nose. It wasn't very effective and looked a bit strange.

The old AMT kit of the P-36 was checked out. It wasn't very accurate and needed a bit of work just to make a reasonable looking P-36. *Medallion Models'* resin kit is a very nice casting, but a little steep in price, especially since I intended to do a collection of XP-40s, most of which would be based on the P-36 airframe.

Fortunately, *Hobbycraft* has produced a series of P-36s. They are quite close to scale and shape, and was used for this project. They're molded in light gray plastic, with nice clean moldings and no flash or sink marks. They have petite panel engraving, although a bit simplified, like on the horizontal stabilizers. There is no rivet detail—thank you, *Hobbycraft!*. The radial engine is nicely done, just ready for the super detailer. Same thing goes for the undercarriage. The cockpit is rather simple, but with little work can be used. If built as a desktop display, it makes into a very nice P-36 right out of the box.

The decals are another story. The fin stripes are so overscale that they couldn't be used. In fact, the only decals that I used were the wing walks. Oh, yes, a word about the instructions: very simple and straightforward. With a simple kit like this, they are almost unnecessary.

I had a *Medallion* P-36 kit on hand, so I made a casting of the cockpit sidewalls using RTV rubber and Alumilite resin. I then added 3/16 of an inch to the bottom of the sidewalls (part of the sidewalls are cast into the *Medallion* wing). Using the *Medallion* floor as a guide, I added detail to the kit floor piece. I punched out a small circle for the floor gauge. I placed two different lengths of *Evergreen* strips on each side of the stick area. Down the middle, I glued two strips of *Evergreen*, side by side. Then I rolled a Ponce wheel (a star wheel, found in

drafting supply stores) down the middle of each piece. The kit's instrument panel was used along with the aft bulkhead. Everything was painted *Alclad "O"*—not zinc chromate or interior green—since pre-war fighters usually had aluminum lacquer paint finishes. The rudder pedals were masked off, then the instrument panel was shot with *Tamiya* dark gray. The control boxes, radio, and map box were painted dark gray or flat black and dry brushed a light gray. A black wash was used overall. Future floor polish was misted over everything, giving it a satin look. No gun sight or guns were used.

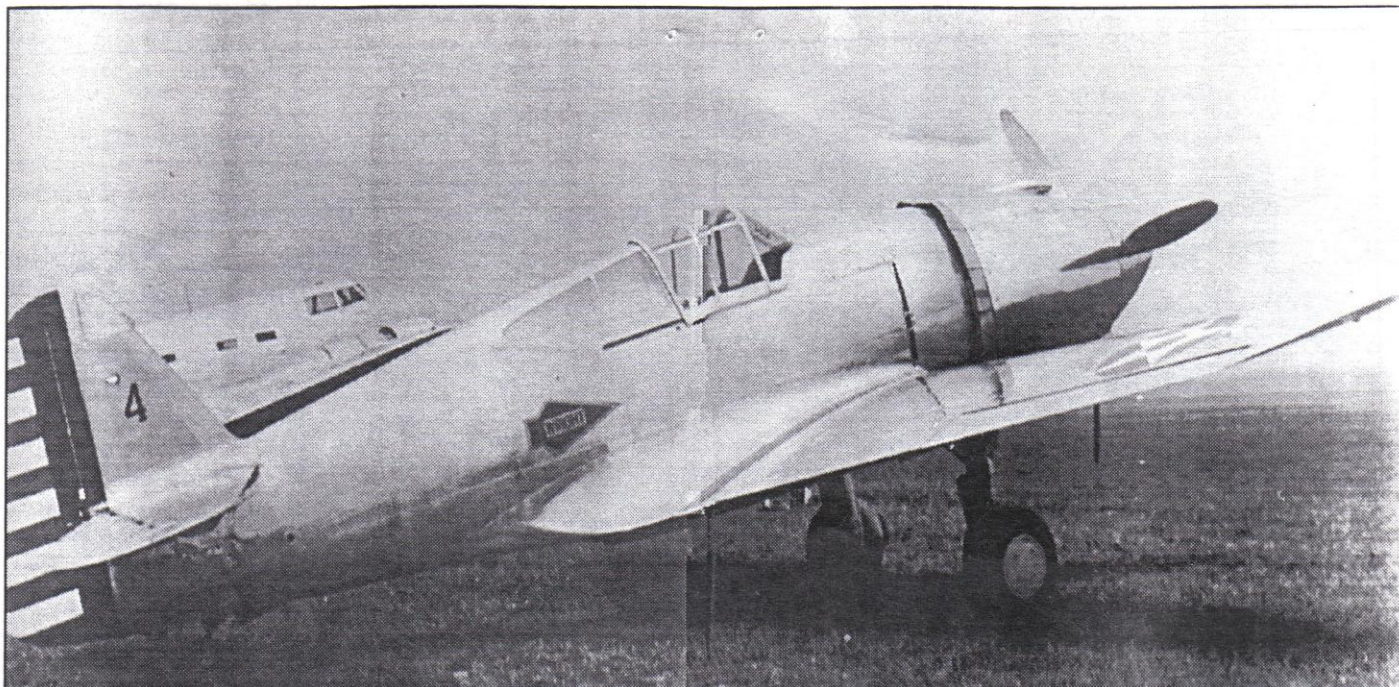
The raised detail on the inside of the kit cockpit fuselage was ground off with a sanding drum on a Dremel tool. The resin sidewalls were glued into place using 5-minute epoxy. Only the upper portion was glued, leaving the lower area free to adjust to the floor later.

The fuselage halves were held lightly together, then I flowed *Plastruct* liquid cement onto the seams using an old paint brush. A couple of squeezes in each section as I applied the glue took care of any seam work later. A piece of sprue was placed into the antenna and gun sight holes with a touch of Zap-a-Gap on each. The tail gear doors were cut off the kit insert, then the insert was glued into place. I used *Acryl Blue* body filler to blend this area in. The seams were sanded, and the lost panel lines were rescribed.

The instrument panel was inserted from underneath. Some juggling was required (It wasn't designed to be used with resin sidewalls). The aft bulkhead came next (more juggling). After test fitting the floor section, I had to shim out the sidewalls (that's why I glued only the top). The seat, throttle, stick, and hydraulic pump came later.

The wings were glued up next. The gun ports and ejection ports were filled in using Zap-a-Gap and sprue. The air brakes on the lower wing were surrounded by on the forward part of the wing and fuselage joint. The horizontal stabilizers were glued on the aligned.

I now masked off the cockpit area and sprayed a light coat of *Alclad "O"* over all the seams and sanded areas. This



The number 4 on the tail of the XP-42 is indicative of its origins; it was the fourth P-36 delivered. It served as a test bed for various in-line engine installations. Fun to fly and a popular hack, the XP-42 survived until 1947

showed any flaw that might be there. A couple of small areas needed filling. A small drop of Zap-a-Gap from the end of a toothpick took care of them. I sanded and polished as soon as it hardened. This stuff becomes hard as steel if you wait too long and then can't be sanded.

I sprayed another misting coat of *Alclad* over all the model, and checked for any problems, alignment, scratches and seams. Everything checked out. I then rubbed it out with an old T-shirt.

Now for the finish coat. I used *Alclad's* color diagram for a P-36. I masked with Post-it notes and drafting tape. I did the job in a hour of spraying and "posting." The paint was then rubbed with the old T-shirt again.

The windscreen was vacformed over a sanded and polished kit part. It was dipped in Future and painted with *Alclad* "O." Testors' window maker glue was used to attach it to the fuselage. I cut out some pieces of clear plastic, using the kits quarter windows as a pattern, then dipped into Future, painted and glued into place. The sliding portion was vacformed over the kit part, Futur'ed and painted.

The rudder stripes were from an *AeroMaster* P-36 decal sheet. *Ventura* decals has a set for the XP-51 and the prototype *Spitfire*, and Wright Field test arrow came from it. The number 4 and wing insignias were from *SuperScale*.

The undercarriage pieces were cleaned up and painted *Alclad* Medium. The oleo section was rubbed with a toothpick, dipped into a tube of *Silver Rub-N-Buff*, then polished with a piece of cloth. The tail wheel and *True Details* wheels were painted *Tamiya's* XF-63 (*True Details* tires seem to be a little too flattened and bulged). The main gear was glued on using a 5 minute epoxy, giving me time to align everything. The covers had to be trimmed to fit and were glued on using *Elmer's White Glue*. The kit supplies retraction struts, but they were a bit overscale, so I replaced them with *Evergreen* stripes. The tail doors were now glued into place. The tail wheel was glued in at an angle.

The kit's stick was used along with stretched sprue throttle and hand pump. A casting of *Medallion's* seat with masking tape belts and *Tekniks* buckles were painted and installed.

Now, this is where we change into a XP-42 from the P-36. The cowl was sawed off in front of the cooling gills. A piece of .020. sheet was glued onto this. I found a piece of clear plastic tubing about a half inch in diameter. I believe it was from an X-Acto knife container. It was cut to length, from the cowling to the spinner, and glued on. (*Fax Files* has drawings and dimensions). The tubing was exactly the right diameter for the spinner backing plate.

A&B epoxy was used to fill the entire area from gills to spinner. After hardening, I sanded and sanded until it was the proper shape. I carved out an air scoop on the lower cowling. It was boxed in with .010 card.

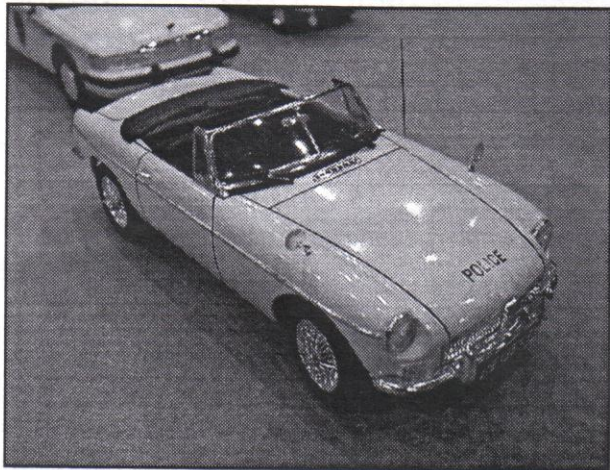
The hardest part was the dummy gun ports on top of the cowl. I cut some small diameter tubing and epoxied it in place. A&B epoxy was placed around the tubing, then sanded to shape. It took about four or five sprayings and sandings, before the cowling looked like metal and matched the rest of the plane. It was glued to the fuselage with 5-minute epoxy. The exhaust was from the kit.

The antenna wire was last. Barbie hair was used. A very small hole was drilled in the spine and in the port wing. The wire was placed into the port wing hole with a tiny amount of Zap-a-Gap. The other end was glued to the stabilizer. A piece was glued into the spine hole then up to the wing wire and then glued. They were tightened with heat. Now we have what looks like an XP-42; a bit strange looking, but certainly different.

As an aside, after this plane was finished, I realized that I was going to need at least four more spinners. *Medallion* makes them for the P-40. I sent a picture of the completed model and a request for a price on the spinners. They sent me 5 spinners, at no cost, and thanked me for asking, and a request for pictures of my finished collection. Good people!

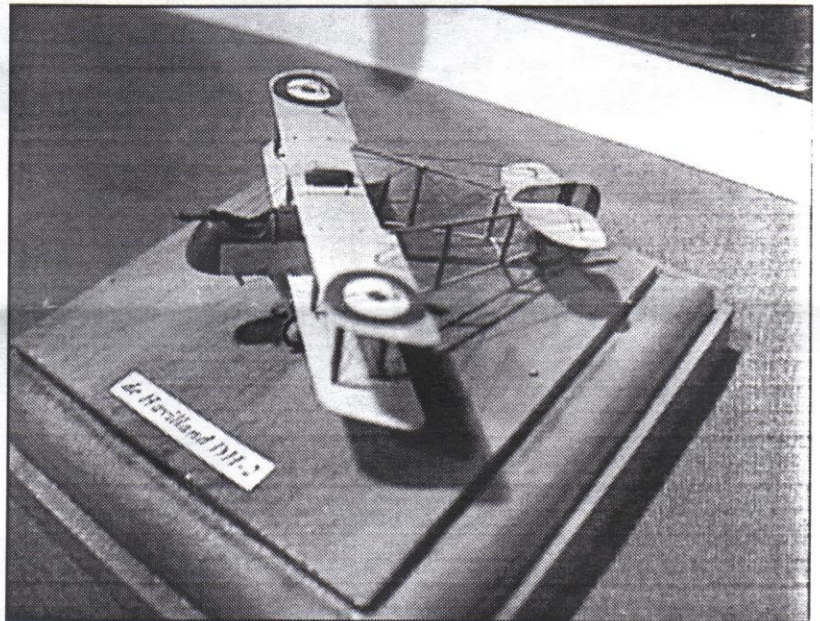
U.K. Nationals

Our own Mike Burton is there and he has his camera...



A U.S. Police Car SIG had a marvelous MGB on its stand. Probably a very unlikely pursuit, but cute.

The next time you feel the need to complain about rigging, remember this, a 1:144 deHavilland DH2!

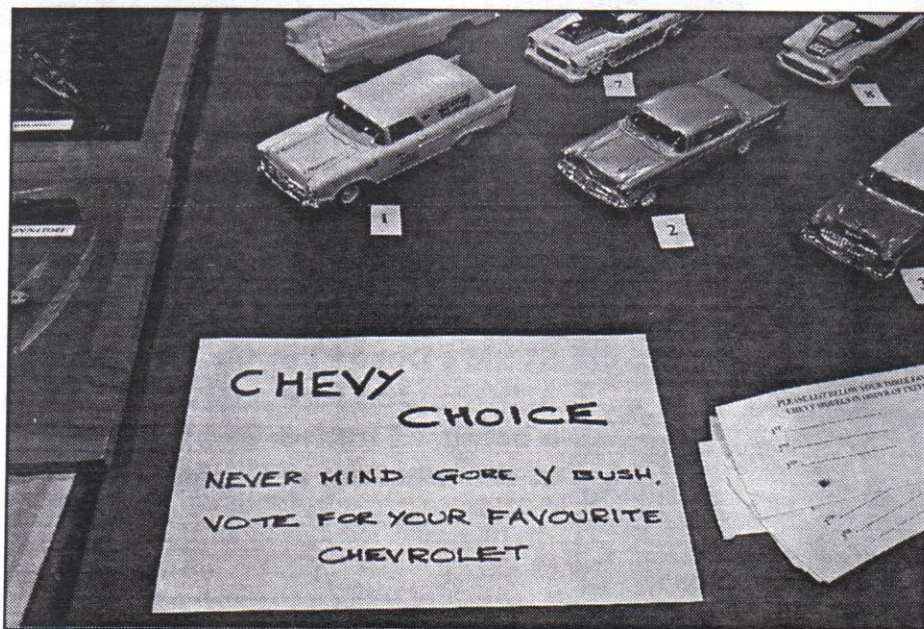


Ugly Americans, indeed: SVSM's Duane Fowler, Postoria Aguirre, Jim Priete, Mike Burton and a bemused native (Robin Powell) at the museum at Cosford.



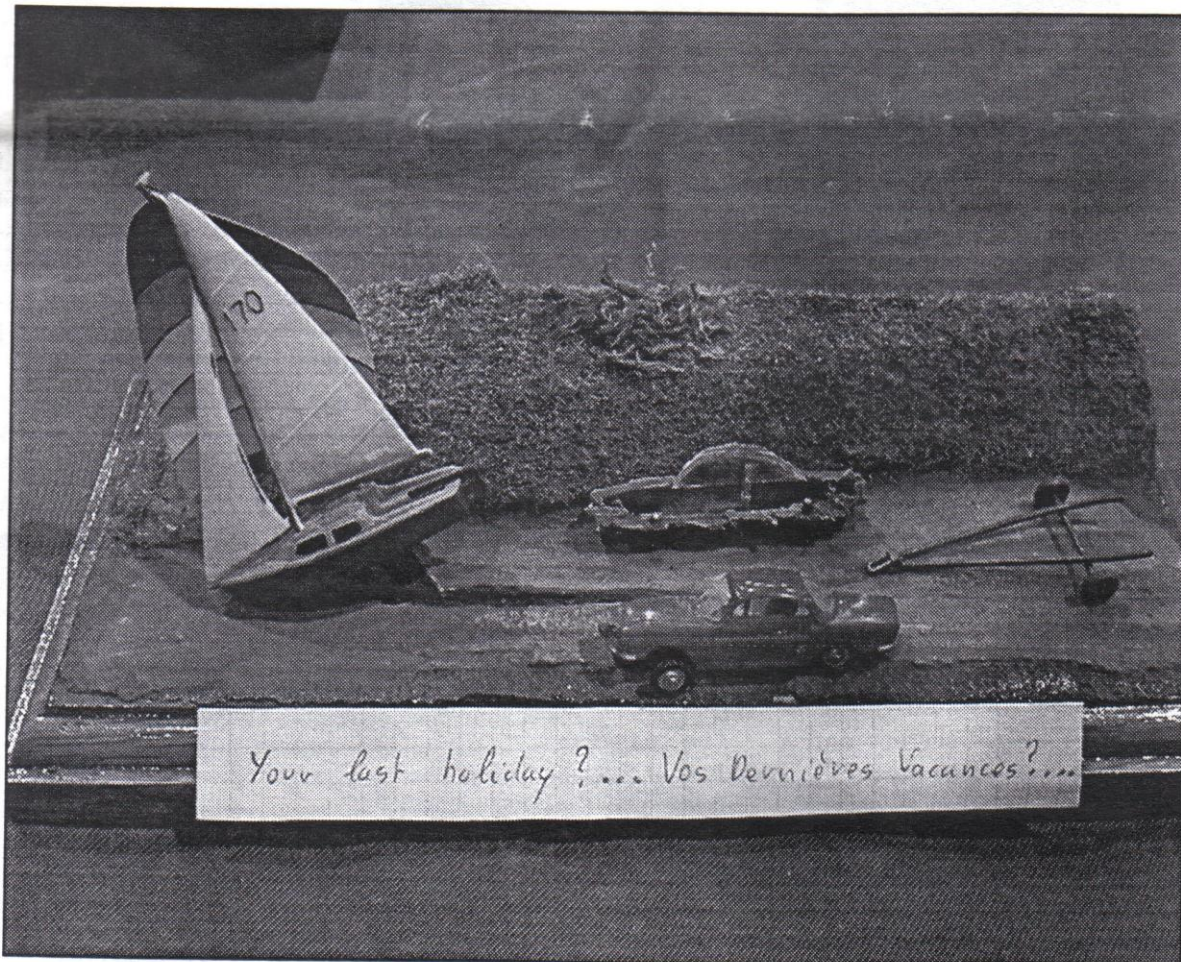
Here's the "English Electric Company" SIG display, dominated by *Canberras* and *Lightnings* (with the odd *Eurofighter*, *Jaguar* and *Jet Provost* thrown in for spice).

Going small again: here's a 1:144 PBV with full detail inside the cockpit and engines, plus a maintenance array on the wing!



No matter how far you travel, US politics follow. While the results may be moot, the sentiment is certainly timeless.

Roy Sutherland checks out some of the contest entries. Roy and Frank Babbitt each brought home awards from the "world championships" of modeling!



Here is one of the best little bits of humor on display. It could be found at the eclectic IPMS-France group table.

On the deck with *Dynavector's* 1:48 TSR.2

By **Bradley D. Chun**

When Francis Gary Powers was shot down in his U-2 spyplane by a surface-to-air missile, it became clear that extreme altitude no longer provided safety from Soviet surface to air missiles. NATO military planners determined that in order to penetrate Soviet airspace, air forces would need tactical nuclear strike aircraft that would be capable of Mach 1 while flying "on the deck," within a few hundred feet above ground, and under enemy radar coverage.

In 1952, a specification for an aircraft for the Royal Navy called the NA.39 was issued, and in 1958 the result of this was the Blackburn *Buccaneer*. In 1956, the RAF issued its own specification, GOR.339, which required an aircraft capable of taking off from 3000-foot dirt runways, flying 1000 miles to targets and back, attack in all weather, toss-bomb with the Red Beard tactical nuclear weapon, and carry a host of cameras and yet-to-be-invented sensor systems.

Although the *Buccaneer* could have met many of these needs quicker with additional development, the RAF wanted no part of it and pushed ahead with the GOR.339 specification. After protracted development, the result of this specification finally took to the air on Sept. 2, 1964 in the form of the TSR. 2 (Tactical Strike and Reconnaissance). The TSR.2 was an impressive aircraft in both looks and performance, but it came with an expensive price tag during a time when many politicians began questioning military. The initial development contract was for £90 million, and estimates of the cost of putting the TSR.2 ranged from £105 million to £1 billion, thanks to British secrecy and a failure on the part of the RAF to properly manage the political end of the program. In 1957, Defense Minister Duncan Sandys had made official the position that manned combat aircraft were a thing of the past, and that a nuclear response should be undertaken by tactical ballistic missiles. Though the TSR.2 represented a great achievement for its designers, these political factors all but doomed it.

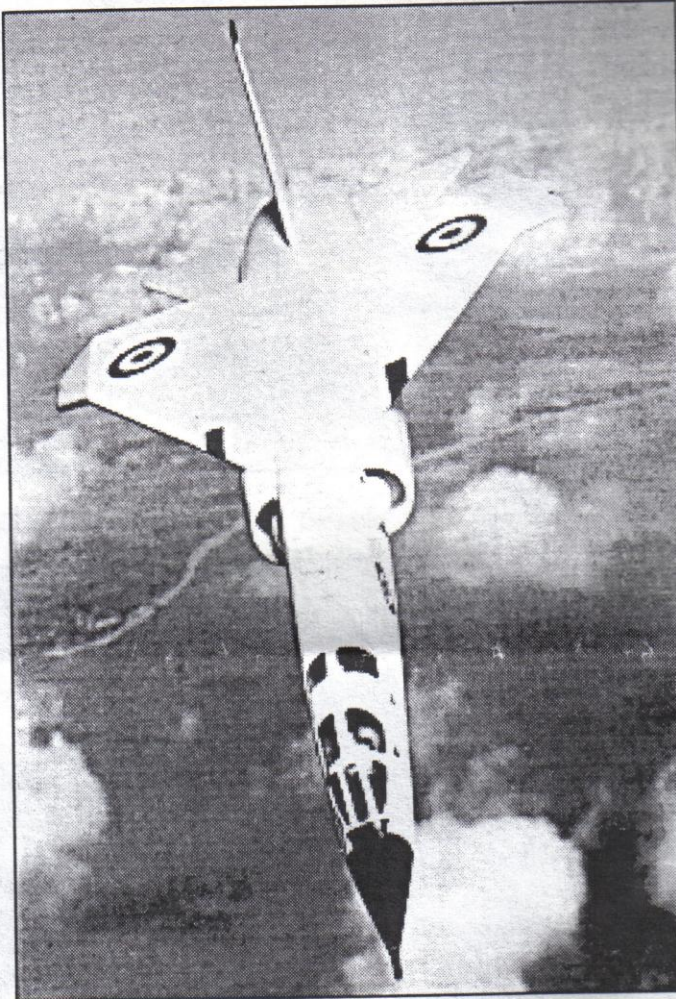
The TSR.2 first flew on 27 September 1964. Only one aircraft actually flew, XR219, completing 24 test flights. In 1968, XR219 was grounded and was then used as a ground target, before meeting its final fate of being scrapped in 1982. Two airworthy TSR.2s and another 47 airframes in various stages

of construction had already been produced when the newly installed Labour Party Government decided to cancel the TSR.2 project on April 6, 1965.

There is no need to be depressed though, as there are still two TSR.2s in existence today. XR220 can be seen on display at the Cosford Aerospace Museum, and XR222 can be seen on display at the Imperial War Museum at Duxford.

When *Dynavector* had announced that they were going to be releasing a 1:48 multimedia TSR.2, I couldn't wait. *Dynavector* announced that the kit would debut at the 2000 U.K. Nationals and I asked Roy Sutherland to pick one up for me during his travels back to the show (I had seen a pre-production shot of the vacuform parts that Taro had sent Robin Powell after he re-mastered some of the airframe for vacuforming. It looked really good then, even though the panel line detail was missing).

The instruction booklet contains a few words about vacuform parts preparation and a method on removing and sanding the vacuform parts, a well-detailed text on the assembly of the kit, and many detailed drawings of the assembly process. The detail drawings also show the vacuform modeler what size and where to place reinforcement for the fuselage and nose and main wheel bays. There is also a top/bottom and side profile for the painting and decal/



XR219, the only TSR.2 to take flight. This aircraft made only 24 flights in its career between September 1964 and March 1965.

marking section, and a reference section. The instructions are well detail and the drawings leave no doubt as to part placement during assembly. There is even contact information regarding *Dynavector's* move to Japan in March 2001.

The five vacuform sheets contain the upper and lower halves of the rear fuselage, left and right (port and starboard) halves of the forward fuselage, intakes, cockpits, afterburner sections, landing gear doors, upper and lower wing halves, upper and lower wingtip halves, and tail planes halves. The vacuformed parts are well defined, and are very nicely molded with recessed and raised detail, where appropriate, and *Dynavector* leaves no doubt as to the exact part and molding plug removal. The raised and recessed detail is clean and crisp, and I could find no blemishes distorting any of the detail.

As per the standard of most vacuform manufacturers, there are two vacuform canopies included in this kit. This modeler likes this idea as some modelers would like to pose the



To meet the requirement for take-off and landing from unprepared strips, the TSR.2 had a unique undercarriage that hung in a gawky manner before touch-down. Problems with vibration in the gear on landing were never solved.

canopies in the open position to show off the cockpit detail, thus requiring two sets of canopies that need to be cut and sanded; also, the extra will help those who inadvertently slip while removing one canopy. The two canopies in my kit are extremely clear and possess sharp, clear detail. Some modelers may wish to dip the canopies in Future. There is no question as to what needs to be removed for the canopies, and masking the canopies will pose no problems when it is time to paint the TSR.2.

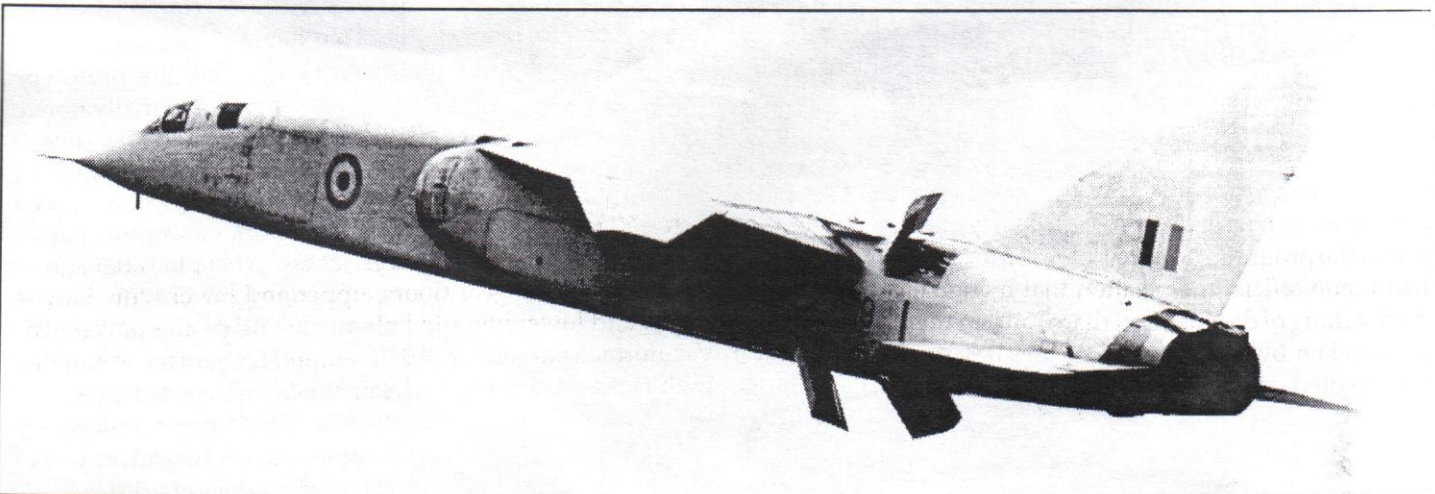
A bag of white metal detail parts are included in the kit. These detail parts include the nose and main wheels, nose and main landing gear struts, ejection seats, pilot and observer's cockpit detail, tail parachute compartment, air intake splitter vanes, camera pod, and other miscellaneous detail parts. The main wheels are nicely detailed with separate brake detail

and are heavy enough to be used as fishing weights. The white metal parts are nicely molded with very little clean up required. Of course the smaller white metal parts need to be removed from their casting sprue and require cleaning up. The only item I see missing, is the shoulder and lap belt/harness detail, but the white metal parts are molded with sharp crisp detail that just begs to be washed and drybrushed.

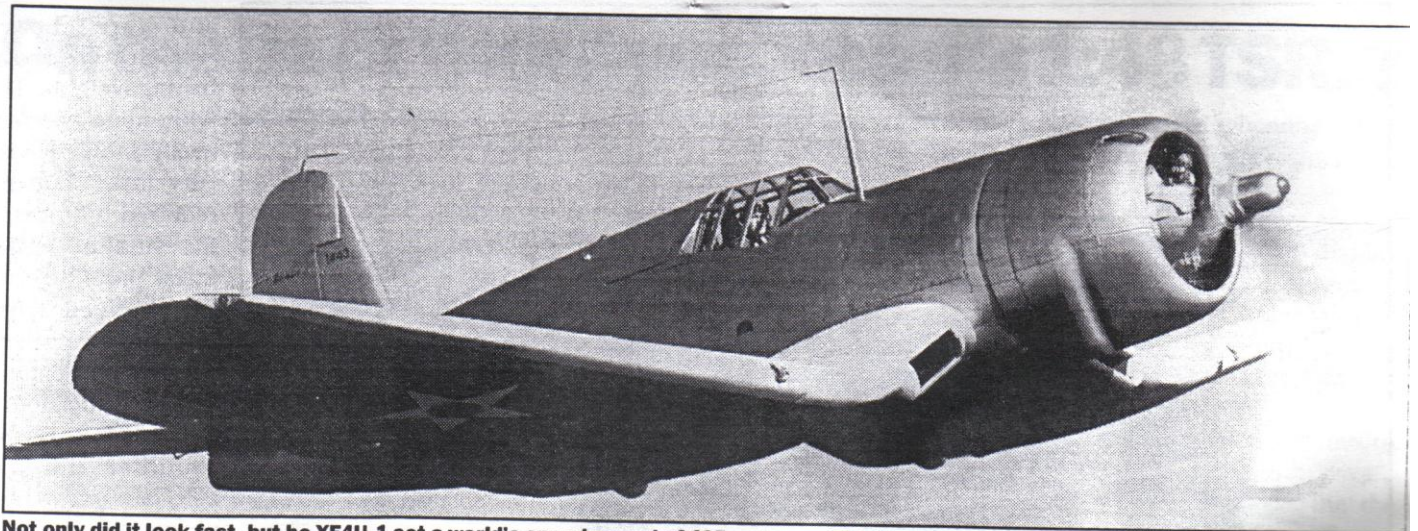
Fantasy Printshop in the U.K printed the decal sheet for the TSR.2. The decals are well within register.

and the stenciling is even readable with the naked eye. There is very little decal film that needs to be trimmed from the decals, and two options are provided for XR219, and XR220.

Fans of the TSR.2 can now breathe a sigh of relief, as this 1:48 scale kit by *Dynavector* is "state of the art." This TSR.2 is engineered for ease of assembly, not like the vacuform kits of the past. Vacuform kits have come a long way recently, as there is not much required in the area of scratchbuilding and most manufacturers include white metal, resin, or both forms of media as detail parts in their kits. Overall, there are 35 vacuform parts, and 56 white metal detail parts. I can't wait to see the TSR.2 built and on display at contests in the future. I wonder what hypothetical schemes some modelers will apply to simulate what might have happened had this aircraft had been operational for 20+ years.



Four huge airbrakes helped the TSR.2 slow down while in flight, but their main purpose was to slow the aircraft down before making landings on unprepared landing fields.



Not only did it look fast, but the XF4U-1 set a world's speed record of 405 mph on a flight between Stratford and Hartford on October 1, 1940.

Backdating a birdcage Corsair into the XF4U

Continued from page 1

wing to cause it to stall at the same time as the left.

Even after these changes were introduced on the production line the *Corsair* was restricted to land-based operations. This meant that the new fighter would be issued primarily (but not exclusively) to Marine Corps fighter units. But that's enough history for now. Let's talk plastic.

The *Corsair* has been fairly well represented in 1:72 plastic over the last 40 years. Some of my earliest memories of modeling, dating from the early '60s, include the F4U kits by Revell, Airfix and Hawk. Those kits were "state of the art" in their day, but were well outclassed in the standards of the industry by the time their replacements by Johan, Frog, Heller and Hasegawa appeared in the late '60s and early '70s. The first

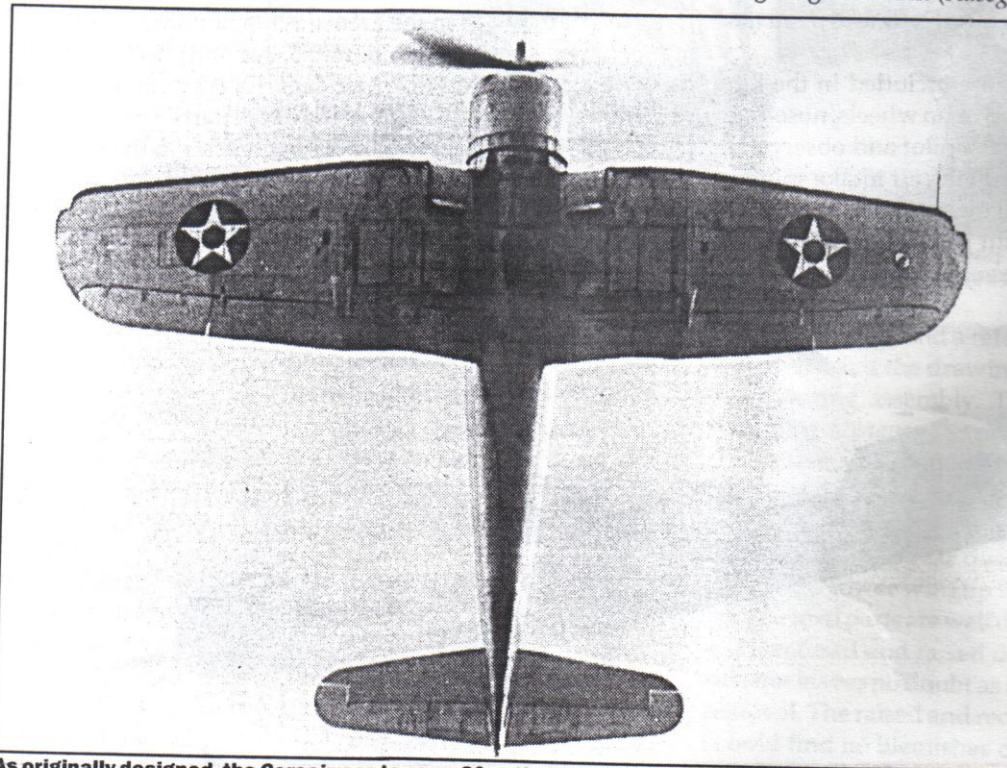
generation kits had little or no interior detailing, raised panel lines, stick-like landing gear struts and dubious accuracy in scale and outline. The second group was much better in many of those areas. In addition to those improvements, the newer kits offered a selection of under-wing stores and better decals. All in all, these new kits made building an accurate *Corsair* in 1:72 a whole lot easier.

The next generation of *Corsair* kits in this scale began to appear in the late '90s. In addition to new kits, these included re-issues modified to represent versions not previously available. Now we can build an adequate model out-of-the-box of an F4U-1 with the "birdcage" canopy in either the day- or nightfighter form (*Hasegawa*), a nicely done mid-production

F4U-1A or -1D (*Academy*), a less than thoroughly accurate F4U-4 (*Italeri*), a disappointing F4U-5N or an equally frustrating F4U-7 (both from *Italeri*). Although this might seem overly critical of these kits, I'm just trying to present an accurate history of the *Corsair* in 1:72 plastic.

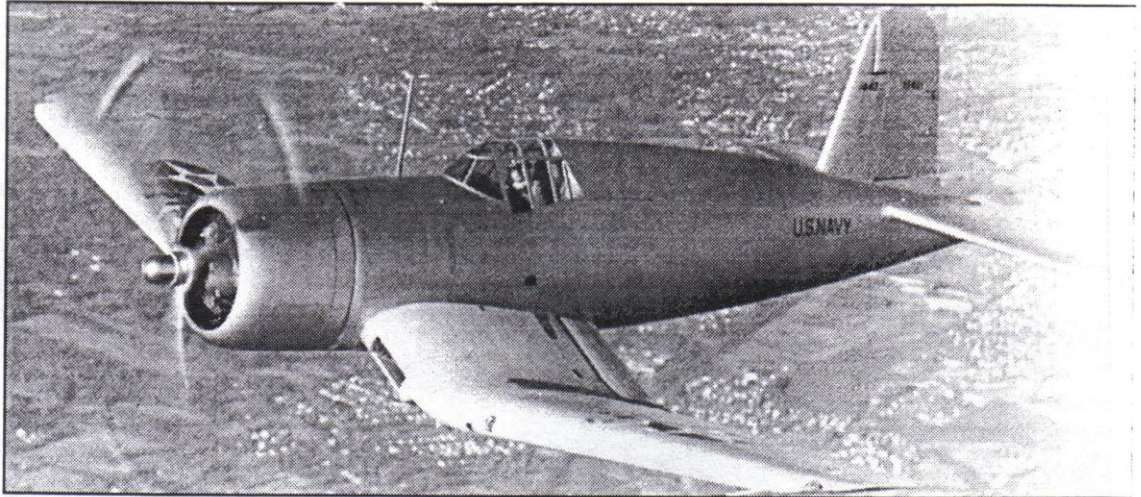
That having been said, let me describe building the prototype *Corsair* as it was originally flown. To the best of my limited knowledge, no kit of this plane has been produced. However, it isn't a particularly difficult conversion to do. I chose to base my conversion on the *Hasegawa* -1a kit, as it is readily available and affordable. Its shape and surface detail are acceptable as a starting point for the XF4U. With my references and razor saw handy I began my work.

The most obvious differences between the prototype and production F4U are the length of the



As originally designed, the *Corsair* was to carry 20 anti-aircraft bombs in small bays beneath the wings. This plan view shows the bays, located just inboard of the stars and disks.

fuselage and the position of the cockpit. To portray these on my model, I first taped the fuselage together and then cut off the forward end just ahead of the wing leading edge. I removed approximately .20 from behind the engine mount/firewall and set the pieces aside for later re-assembly. Next, after carefully checking my refer-

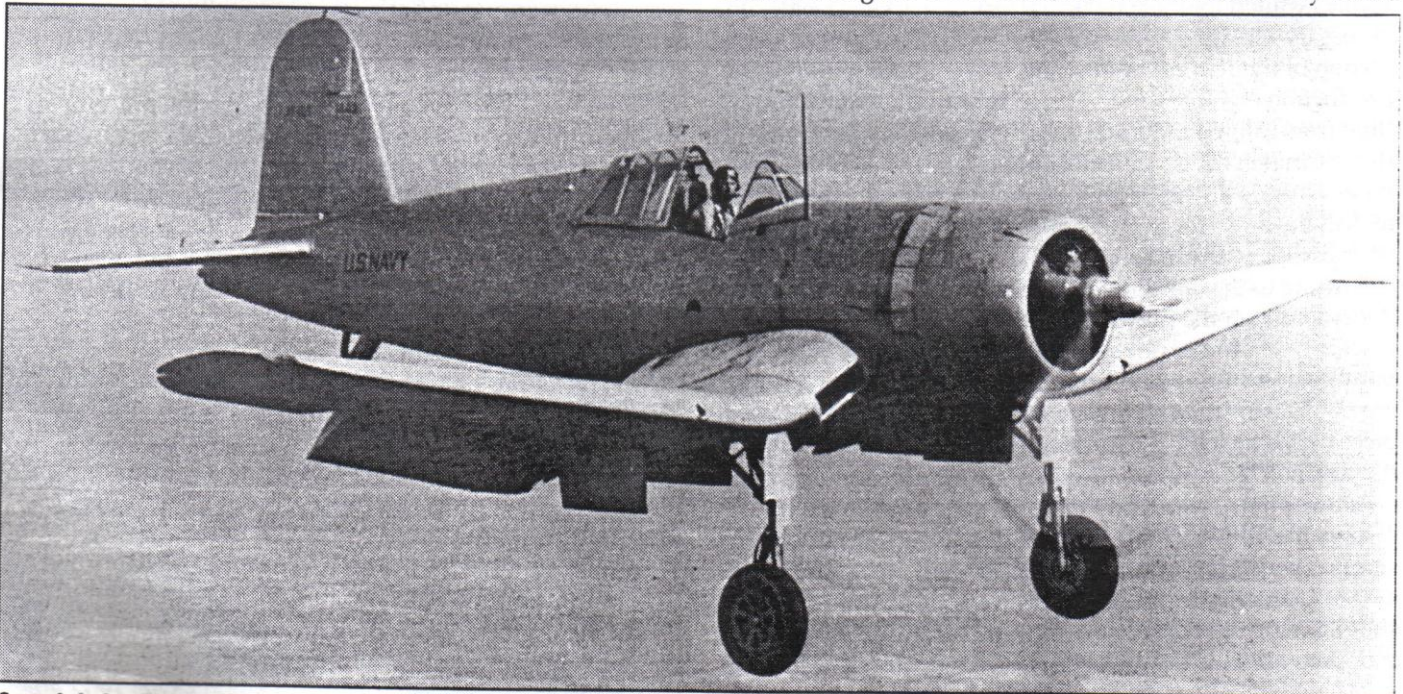


Only one XF4U was built, Bureau Number 1443, and it survived a crash early on to perform all the testing needed to gain government approval of the Corsair. It was scrapped in December 1943.

ences, I cut out the cockpit opening 1/2 inch farther forward. At this time I modified, assembled, painted and installed the kit interior into the fuselage in the new position. This required some adjustment of the kit parts as well as some shimming to achieve a good fit.

With the major surgery done, I could now begin rebuilding the fuselage behind the cockpit. I glued the fuselage halves together and cleaned up the seams before proceeding with my modifications to the fuselage. For the area behind the cockpit I was able to use a section from an old German 1:48 bomb from my parts box. I glued the new section in place with gap-filling super glue and sanded it to match the fuselage contours. I then found a canopy in my parts box that approximated the shape of the prototype's glazing. I sanded the framing off, reshaped and polished it before dipping it in Future and attaching it to the model. I then cut .050 off and filled in the very aft portion of the fuselage to represent the shape where the prototype's "stinger"-type arresting hook came out. This done, I set the fuselage aside and turned my attention to the wings.

Fortunately for me, the wings of the XF4U are dimensionally the same as those on production aircraft. Therefore, the first order of business here was simply to relocate or remove any of the panel lines necessary to represent my chosen subject. At this point I also removed the incorrectly depicted fabric simulation on the outer flap panels. Once again I carefully studied my references and then dove in. I decided to leave the woefully shallow landing gear bays alone and glued the three wing pieces together at this time, remembering to install the oil coolers and reshape the openings of the air intakes before gluing the wings together. The ailerons on the XF4U were considerably shorter than were those on subsequent models, so I filled and re-scribed them. The flaps on the original were also different from later versions, but in the closed position it isn't noticeable in this scale, so I left them as is. At this point I also filled in the outer two machine gun muzzle ports on the leading edge of each wing. Underneath the wings I filled in the spent casings ejection openings and formation lights. Then I scribed the five bomb bay doors



Corsair in landing configuration, with flaps and gear down. This shot shows how far forward the cockpit was originally placed.



1443 sits placidly on the ramp at Langley Field, Virginia before testing in the 30-by-60 foot wind tunnel in autumn, 1941.

under each outer wing panel. Finally, I cut out the teardrop-shaped bomb-aiming window in the center section of the lower wing. I then glued a piece of clear stock into the opening. I ended up just painting it black on the inside anyway since I had an inaccurate solid floor in the cockpit. This done, I was ready to move on to final assembly of the airframe.

I now glued the firewall pieces to the front end of the fuselage and cleaned up the join. Then I attached the wing assembly to the fuselage and set it aside to dry thoroughly. While I waited for the glue on the fuselage to set, I tackled the necessary changes to the cowling. First, I cut off the upper section of the rear of the cowling where the cooling flaps on production machines were sealed shut to alleviate hydraulic fluid from fouling the windscreen. I replaced that section with flaps to match the rest. Next, I built up the inside of the top of the cowling with super glue and microspheres to enable me to drill the holes for the nose-mounted machine-guns. These were drilled with a .030 bit into the upper front lip of the part.

Turning to the tail end, I altered the shape of the tail-wheel doors to match the prototype's tailwheel and glued them in place. Next I sanded this area down to reduce the depth of the tailcone so it would flow smoothly into the shortened arresting hook area. I then simulated the arrestor hook with a small piece of plastic rod bent and sanded to shape before inserting it into a hole at the extreme end of the fuselage.

At this point I was ready to modify the engine and mount it onto the firewall. The modifications were quite basic; I simply added more accurate magneto "cans" to the reduction gear housing (that rounded part on the front of the engine), added the wiring harness to the cylinders and painted it. The cylinders are painted a steel mixture (50/50 flat black and silver) with details picked out with a wash of flat black. Then I dry-brushed the engine with silver and painted the reduc-

tion gear housing a gloss red-orange as on the original. Now the engine was ready to install into the cowling and the cowling to the fuselage. At this point I also had to reshape and affix the multiple exhaust stubs beneath the fuselage just ahead of the wing.

Now my first *Corsair* was ready for paint and decals. The model was painted overall aluminum with chrome yellow wing upper surfaces that wrapped around the leading edge onto the lower side for 1 scale foot. The interior of the engine cowling painted yellow chromate, while the wheel wells and gear doors were painted aluminum. The prop is natural metal on the forward surfaces and flat black behind. The hub is a highly polished metal finish so I painted it with Testors chrome silver. The prop tips are painted in the pre-War style with red-yellow-blue bands coming in from the tips. After the paint was completely dry, I applied the decals. Markings consist of pre-war national insignia on all four wing surfaces and black lettering for the "U.S. Navy" on the aft fuselage. The serial number 1443 on the vertical stabilizer and XF4U-1 on the rudder are also black. The anti-slip wing walks are also black but since they are matte, I decided to add them after all other painting and sealing was done.

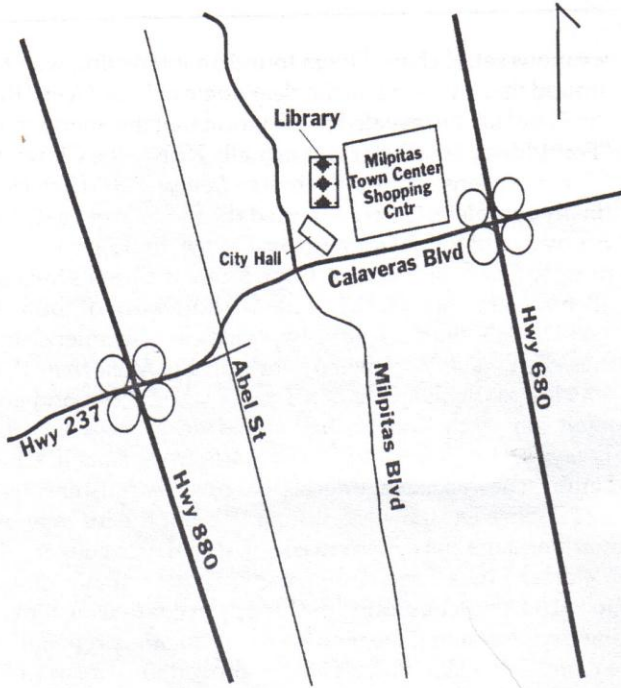
After the decals had set thoroughly, I gave the model a coat of Future to seal everything. Finally, I added the last few detail parts such as the pitot tube on the port wing tip, the landing gear and the radio mast to the forward fuselage just ahead of the canopy. Then I attached the aerial wire from the mast to a short stub on the top of the rudder.

Though my description here of the work necessary to convert a production F4U-1 into the prototype, it really was a simple task, well within the abilities of most modelers. The finished model presents a one-of-a-kind subject that gives an interesting contrast to the WWII and Korean War *Corsairs* in my collection.

OCTOBER MINUTES

At October's meeting, Pete Wong reminded us that he'd be displaying one of his 1:1 scale models at this year's Veterans' Day parade—in this case, his 1:1 scale Ferret armored car. The grandstand for the parade will be located at San Carlos and Market streets in San Jose on November 11; Pete says this is a good opportunity for armor modelers to get an up-close look at an assortment of military vehicles. In model talk... Sami Arim is in the early stages of a 1:700 World War II-era H.M.S. *Belfast* using a resin kit of Czech origins. Sami has made new masts and replaced the gun barrels with small-gauge tubing; we can't wait to see it painted in dazzle markings! Pete Wong has performed serious work on the old *Fujimi* 1:700 *Shokaku*, which he says is modified to be close in final appearance to the new but pricey *Tamiya* kit. Pete picked his model up for \$2 at a club meeting! Next to the *Shokaku* was one of its adversaries, Bert McDowell's partially-completed U.S.S. *Essex*, which he's converting from the *Tamiya Yorktown* kit. Bert has applied his patented techniques for replacing and painting the flight deck to this heavily-revised carrier. Bert also displayed new brass from *Tom's Modelworks* for the *Bismarck*, *Tirpitz*, *Kongo* and *Nagato*, which Bert had a hand in designing (the brass, not the ships! He's not that old... We think!). Brad Chun is making amazing progress on the huge new 1:16 *Tamiya* Tiger I, which he plans to complete as a radio controlled model. This model is so big Brad used three bottles of *Model Master* dunkelgelb just to paint the hull! Vladimir Yakubov made short work of a kit Sami Arim handed off to him last month of a Russian World War I-era gunboat. The model came from a *Modelkrak* kit, and Vladimir scratched some small details and used photoetched parts for others. Vladimir's much longer term project will be the *Red Wings* 1:72 Tu-16 Badger, which comes in a lot of pieces in a little tiny box (shades of *Merlin Models*!). The kit has icky plastic but beautiful photoetch, so Vladimir is content on describing it as a really long-term project. Bud Joyce's stable of aircraft has increased by two *Skyriders*, both built him by Braulio Escoto. Matt McMackin had a trio of *Tamiya* military vehicles for show, including a quad tractor, an SdKfz 250 that's getting close to completion, and a long-range desert truck. The SdKfz 250 was Matt's first attempt at single-link tracks. Matt also went the extra mile on a 1:72 Me 262, fabricating a new nacelle half and the upper right wing after finding the parts missing in his kit! Ron Wergin's 1:72 armor includes a *Revell* Stug IV, which features home-made side skirts made from screening to replace the overly-thick kit pieces. Ron says the *Revell* Leopard II is a lousy kit, but he detailed it right down to the driver's sunglasses. Ron also built a 1:72 Tiger II from the *Tamiya* kit, painted a figure of an East German paratrooper, and built a 1:24 Austin sports car from the *Monogram* kit. Larry Roberts' 1:48 *Hasegawa* *Shinden* had no locating pins, but he says the model fit together just fine. Chris Hughes' efforts to paint a camouflage uniform on a 1:16 German soldier have been somewhat tedious; each of the many colors took about an hour to apply! Kent McClure used brown stain to apply a quick bit of shading to some small orange wargaming figures of random space warriors. He made a set of trenchwork for wargaming out of insulating foam, craft sticks and model railroad scenery, and scratch-built a "Buck Rogers" fleet of spaceships from a 1:144 aircraft

weapons set. Richard Draga found an interesting way to get around the nasty seam in the clear dome of *Polar Lights*' Robby the Robot kit: he revealed to the world that the operator of the "Forbidden Planet" star was actually Krusty the Clown from "The Simpsons." Chris Bucholtz' *Tamiya* F-84 *Thunderjet* is finally complete; Chris converted the model from a -G to an -E model, and fought decals from *Carpena* and *AeroMaster* to a draw to finish the model as Capt. Kenneth Skeen's MiG killer "Benny-San." Ben Pada has made short work of the *Tamiya* 1:48 Do 335, finishing it in hypothetical "Grunherz" markings. Ben's also completed work on his *Monogram* P-47N, which was the recipient of a *True Details* interior and an *Snj* paint job. Tom Trankle has added an all-new interior to *Tamiya*'s 1:48 *Beaufighter*, using parts from *Eduard*. Charles Lamb eschewed lozenge decals when he was finishing *Revell*'s 1:72 Fokker Dr. I, instead opting to paint the lozenge using masking tape hexagonal masks. Barry Bauer converted his *Matchbox* F4U-4 *Corsair* into something that actually looks like an F4U-4, scratchbuilding the canopy, recontouring the cowling ring, rescribing the model and adding the propeller from a *Fujimi* F4U-5 kit. Barry's also improved the *Hasegawa* F4U-1, correcting its inaccuracies and finishing it up with *Humbrol* paints and pastel weathering. Also getting the accuracy treatment from Barry was the *Revell* I-16, which had its wing rebuilt to increase the chord to the proper width. Thang Le found the fit of *Monogram*'s 1:48 P-47D Razorback to be a little iffy, even requiring some shimming in a few places. He used *SuperScale* decals to give the plane checkertail markings. Thang had a better time with *Academy*'s 1:48 *Hunter*, which he finished in Suez stripes. All he needed to do with this kit was replace the too-small ejection seat. Cliff Kranz converted a *Hasegawa* SR-71 *Blackbird* into a M-12 by narrowing the chine and modifying the rear of the plane. He added the *Testors* D-21 drone to the spine to complete the spy tandem. Dave Balderrama's 1:280 Space Shuttle went together okay, but it had a ton of sink marks that needed to be filled before he could make any progress. And the model of the month goes to... Thang Le's Ka-50 "Hokum" in a customized Russian Navy-style scheme. Thang didn't like the desert scheme the *Italeri* kit provided, and he thought the Ka-50 looked like a shark, so he found some unused shark-mouth decals and made up his own paint scheme. In our air racers contest, we had a small but competitive field. Mike Burton was in Great Britain for the U.K. Nationals, but his *Hawk* Ike and Pete racers, as described in the September Styrene Sheet, were there. The winners were... In third, for his Mooneyes Messerschmitt built from the *Monogram* kit, built by Steve Travis. Steve clipped the wings, puttied up all the seams and panel lines and gave ol' N109 a coat of *Tamiya* gloss yellow paint. In second place, with his *Williams Brothers*' Caudron Thompson Trophy racer, was Greg Plummer. Greg cut out the landing gear openings to make the retractable gear version, and added lots of detail to the interior. And the winner, for his 1:48 Roto-Finish *Mustang*, was Mike Meek. Mike started with the *Hasegawa* kit, but used resin parts and lots of superglue to change the contours of the plane to make it an accurate representation of the real thing. Mike gave it a coat of silver "paint" using *Testors* Metallizer non-buffing steel paint. Congratulations to all of our winners!

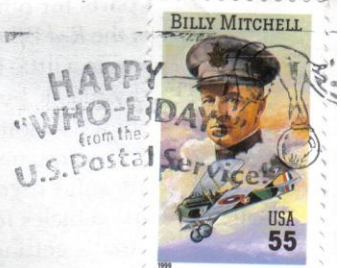


Next meeting:
7:30 p.m.,
Friday,
November 17
at the Milpitas
Public Library
40 N. Milpitas Blvd.

For more information, call the
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