

Anglo armor: detailing the new *Minicraft* Warrior

By **Al Gonzalez**

The subject of *Minicraft's* latest armor release, the Warrior is a replacement for some of the British Army's existing fleet of FV432 Scimitar-family armored fighting vehicles (AFVs). The

Warrior was developed at the same time as the American Bradley, and at least once during its development, the Warrior was almost canceled in favor of the American machine. However, the Warrior promised superior performance and better crew protection, so development work continued.

There are several variants in the Warrior family, including three versions of command vehicles and two versions of engineer/recovery vehicles. The most complex variant is the Mechanized Artillery Observation Vehicle (MAOV), which mounts a surveillance and target acquisition radar on a telescoping mast mounted behind the turret. There is also a newly-developed anti-tank version, which mounts three MILAN firing posts welded to the structure, one on the right side of the turret and the other two on each side of the hull roof hatches (This should make for an easy conversion!). Hopefully, some enterprising aftermarket company will design conversion kits to allow us to model all the variants.

Another easy conversion is the export variant. This version uses the turret from the Canadair-built Light Armored Vehicle 25 (LAV-25). Hughes TOW missiles can be mounted on either side of the turret, and optional firing ports can be installed, two on either side of the hull and one on the rear

door. Kuwait has been the only country to buy this export variant, but several countries, including Norway, have tested the vehicle. I haven't tried dropping my *Italeri* LAV-25 turret into the Warrior kit's hull for a test fit, but at least it sounds

easy!

The first Warriors were assigned to British operational units in West Germany in 1988. The Warrior had a chance to prove itself in combat during the Gulf War, where it performed flawlessly. It was here they were first equipped with add-on armor kits to enhance their survivability.

During the Gulf War, no Warriors were lost to enemy

action. In a testament to its survivability, one Warrior survived a 120mm round accidentally fired from a Challenger tank. The round hit the add-on armor, only denting the Warrior's hull underneath!

Some Warriors deployed to Bosnia have had a couple of additional modifications, including a Global Positioning System (GPS) receiver and antenna and an additional tow hook mounted on the front.

Through its operational use, four basic shortcomings have been identified.

- The crew compartment is fitted with a semi-transparent fuel tank, so crews can gauge remaining fuel. The fuel sloshing around at high speed tended to make the mounted infantry seasick! Subsequently, the fuel tanks have been painted over. An easy fix!

- The 30mm gun is not stabilized. This means the Warrior

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A Warrior from 1st Battalion the Cheshires escorting a relief convoy in Bosnia in 1993. The absence of external stowage is a result of the secure bases the vehicles operated from.

EDITOR'S BRIEF

Your editor was one of the only two members of our club present at the Nationals this year (Tom Harrison was the other, on a working vacation), though others tried to attend but were stymied by travel and work snafus. The event the folks put on down there was awesome—2012 official entries and 822 registered attendees, both all-time highs, plus a vendor room that was beyond belief. The quality was as staggering as the quantity—try 1:48 single engine prop split SEVEN ways between 184 entries? Or 90 1:35 World War II closed-top armored fighting vehicles?

Before I start raving some more about how good the convention was, let me offer you all some negative remarks that you may use to justify staying home. Virginia Beach itself is like a cross between the Santa Cruz Beach Boardwalk and Fisherman's Wharf, complete with tourist traps like wax museums and old-time photo shops. The average age of the teeming throngs that clogged the sidewalks at night was about 16, a number that amounts to one-third of the average I.Q. of these folks. The housing committee for the convention sent me and the lovely Wendy to a hotel that apparently was an annex to the state entomological sciences laboratory. And the weather was oppressive, with high humidity and high temperatures, plus a thunderstorm. The most telling thing about the town was that, try as we might, we couldn't find a book store.

But other than that, it was great!

Like I said, the models were awesome, and the vendor room was likewise. I had a long talk with Loren Perry of *Gold Medal Models* about building model ships, renewed acquaintances with friends from last year and made a bunch of new ones.

The vendors were good, both in product and in attitude. On Thursday, after I bought a book on the CF-100 from a vendor, I remarked that it was too bad he didn't have anything on the F-82 *Twin Mustang*. The guy took down my name, and the next morning, there was the book, waiting on hold at his booth! Another vendor, when I told him I was searching for an old Ki-21 *Sally* from *Revell*, took it upon himself to locate one—at another vendor's booth. That was the atmosphere at this show.

The feeling during judging was equally good. Walt Fink was the head judge this year, and he stressed all the important points in his talk to the judges—look at the basics and take the rest of your biases and stuff 'em. Walt coined the saying, "I've flown in planes that were painted the wrong color, and I've flown in planes with the wrong markings, but I've never flown in a plane with a big seam down the middle." His words avoided some of the judges' anomalies from last year ("That plane is too clean," "This one should win because his clear parts are so good," "Sure it's nice, but that's an easy kit," etc.). Walt made it clear that piddly stuff was not to be worried about when other basic problems might exist.

The organization of the event was also commendable, although with the usual snags. For instance, my registration packet didn't have Wendy's pass, and when I turned around to get it, I bobbed the container my XF-85 was in—snapping off the canopy, one of the test booms and the cart tow handle. But, in a stroke of wisdom, the contest had a "model first aid" station, with super glue, sharp blades and toothpicks, and

within 20 minutes the damage had been repaired and the model was on the table.

I didn't win anything, mind you, but that didn't matter. It was an honor to be on the same table with such wonderful models. The only major problem was with the awards, held in a theater after the banquet. Instead of being able to nibble on dessert or drink coffee, we instead sat and watched a veritable Bataan Death March of winning entries, presented via a live video link that provided a measure of unintentional humor.

But those models... Judges' Best and Popular Best both went to "A Stroke of Fate," a spectacular shadowbox that used forced perspective, beautifully rendered battle damage and a lot of imagination to depict the collision of a B-17 and an Me 109 over North Africa. Also awesome... A completely scratch-built 1:311 guided missile cruiser, U.S.S. *England*, detailed not with photoetched parts but with stretched sprue; a pair of highly-detailed 1:48 He 111s; a diorama depicting a 1:48 Ruhr-Valley Dambuster *Lancaster* pulling away after its drop, with her Barnes-Wallis mine skipping across the water below her; another masterfully presented diorama with three Germans trying to pry the hatch of a crippled KV II open and lob in hand grenades—with a barely visible Russian tanker desperately trying to hold the hatch down; a scratchbuilt WWI figure, called "The Trophy Hunter," examining a German helmet that he himself may have "damaged;" and an eight-ship collection of World War II U.S. battleships in 1:350—one *Tamiya Missouri* and seven scratchbuilt earlier battlewagons! The most mind-numbing single entry was a collection from a group of modelers in that most mind-numbing of states, Texas, who presented a display of 1:72 Spanish Civil War Aircraft that occupied at least three tables! Amazing!

And I was so inspired by last month's issue, I bought myself an *Airfix Sea Hawk* and an old *Aurora* HH-3E in 1:72 (Sorry, Randy, I couldn't resist...).

By the way, the 1998 Nationals will be held in Santa Clara, California. More on that later.

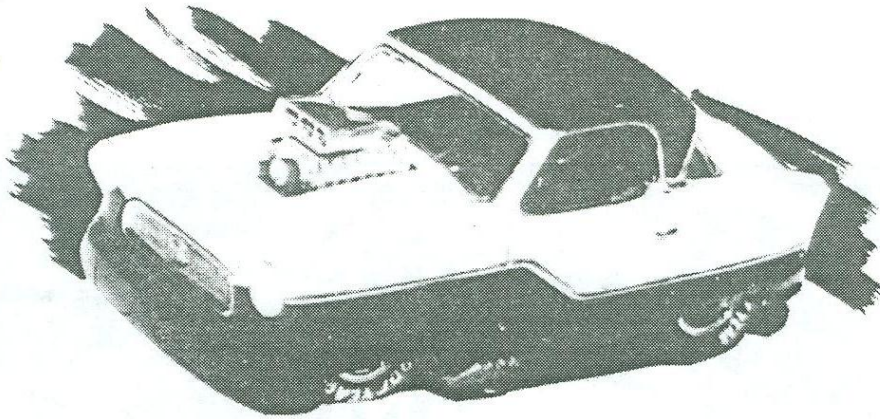
Well, gotta go stuff more plastic in my closet...

—The Editor

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3rd Annual GOLD COAST National Challenge



"Put your best to the test"
August 17 & 18, 1996

The Gold Coast National Challenge is a non-profit event established to bring the nation's modelers together to compete on common ground. We hope to do this in a friendly, open atmosphere where each participant can recognize and acknowledge their fellow enthusiasts' talents and achievements. This contest will recognize the individual's efforts, and cars entered should be built solely by the person entering them! No "contract cars", group efforts or partnership cars may be entered in any of the classes.

Except where prohibited by class rules, participants may use any aftermarket photo-etch, aluminum, resin, etc. to complete his car, but these parts must be assembled by the participant!

Hopefully this flyer will answer any questions you may have. If not, feel free to contact us at any time.

Roy R. Sorenson
Roy R. Sorenson
Event Chairman

AWARDS: Best of Class through Third Place Awards will be presented in each Class, if it has a minimum of three entries. The following Master Awards will also be presented:

• **BEST OF SHOW** •

- Best Paint/Finish • Best Interior
- Best Detail • Modelers' Choice
- Best Engine • Best Engineered

With the exception of the Modelers' Choice Award (which is voted upon by all participants), the Master Awards will be selected by the GCNC judges.

The BEST OF SHOW winner is selected from the Best of Class winners. Master Award winners (other than Best of Show) need not be Best of Class winners.

Elastic Fanatic magazine will present its "Best Automotive Design" award, and any pre-approved private awards will be presented during the Awards Ceremony.

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Building NACA 147, the bulbous beast

The bubbletop *Helldiver*, NACA 147, was one of Ames' most distinctive aircraft and a subject well worth modeling. It also offers an unusual opportunity to model one aircraft in three distinct phases of its life.

Factory markings, which are slightly different from service sea blue, are shown on page 43 of Squadron/Signal's *Helldiver in Action*, and the photos printed in the Styrene Sheet should allow you to model the yellow drone markings and the bubbletop era.

There remains one small problem: there do not appear to be any kits in production between 1:144 and 1:32 scale except for the nightmarish 1:72 *Aoshima* item, which is hardly recommended. Fortunately, reissues keep appearing, and everything eventually shows up on a vendor's table.

I know of three useful kits. All are earlier marks, so canopies need modification to the frameless hood of the -5. *Airfix* produced a kit in 1:72 which I do not have at hand, but if I recall correctly, had both the three-blade prop of the -1 and the four-blader of the -3 thru -5. Also in 1:72 is a -1 by *Matchbox*. Dimensions and the overall "look" are good enough to make it a good starting point, but it has the typical *Matchbox* over-size panel lines, plus folding wings, which add troublesome gaps. The engine is not very satisfying and the interior is almost nonexistent.

Monogram's 1:48 kit is 30 years old, but still looks good and captures the feel of the "Beast," and if they continue their program of reissues, it may again be a good bargain for the price. Unfortunately, it comes with problems. The worst is that it is loaded with working features: wings fold, bomb bay doors open and a bomb cradle descends, canopies slide and gear retracts. Thus, the oleos are molded extended so the gear fits the wells and the one-piece gear doors would not have their usual ground-attitude overlap (although you will need to discard the lower portion to match the prototype, anyway). And



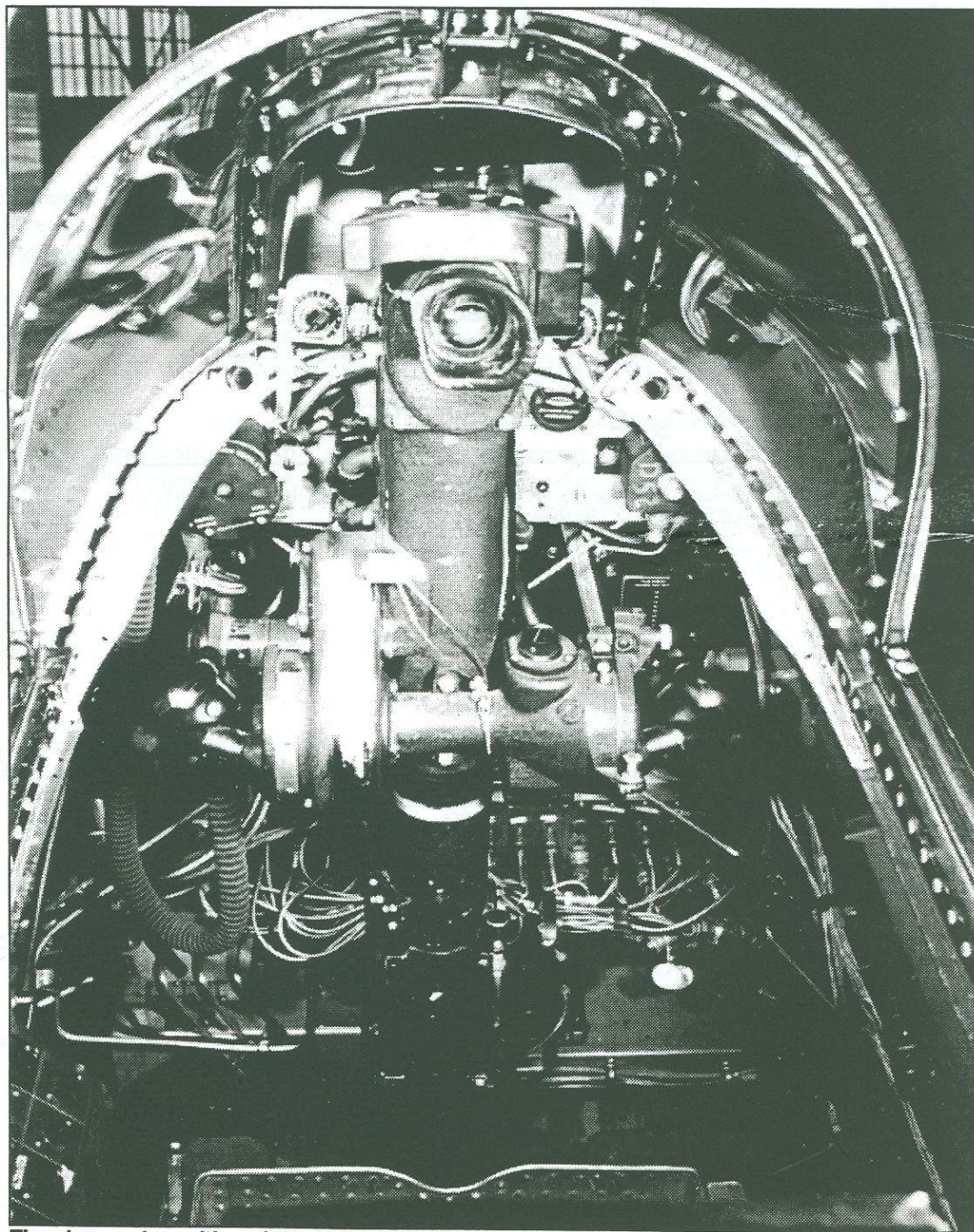
MEMORIES OF MOFFETT

By Bob Miller

don't glue the gear doors to the struts as the kit provides: they hinge to the wing lower surface and angle inward, toward the struts, when extended.

Surface detail is raised and reasonably fine, but by the time you fill sink marks and molded-in holes

for rockets, fit and fill the wing-fold joint, and fill the oversize grooves for the sliding canopies, you may well give up in frustration and sand it all off. There's an interior adequate for semi-detailing, but no seat (Huh??). The four-blade prop has a hub that is a good representation of a Curtiss-electric and could be used without the separate spinner, except there is a



The observer's position of NACA 147, incorporating the periscopic gunsight of an A-26 *Invader*.

cut-down section to make a close fit to the spinner that forces you to rebuild a hub-cuff junction. Both this and the *Matchbox* kit have faired-over tail wheel structures, while photos show NACA 147's exposed, so either would need replacement for a fully-detailed conversion. In your favor, you may be able to use or copy a periscope from the 1:48 *Invader* to furnish the aft cockpit.

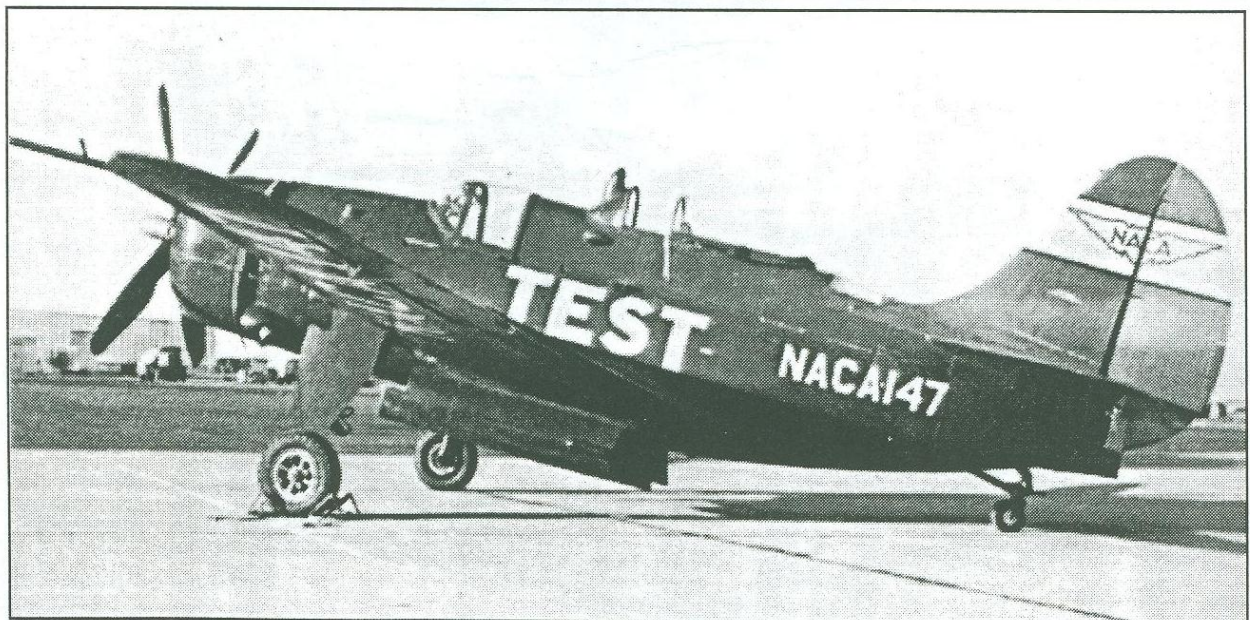
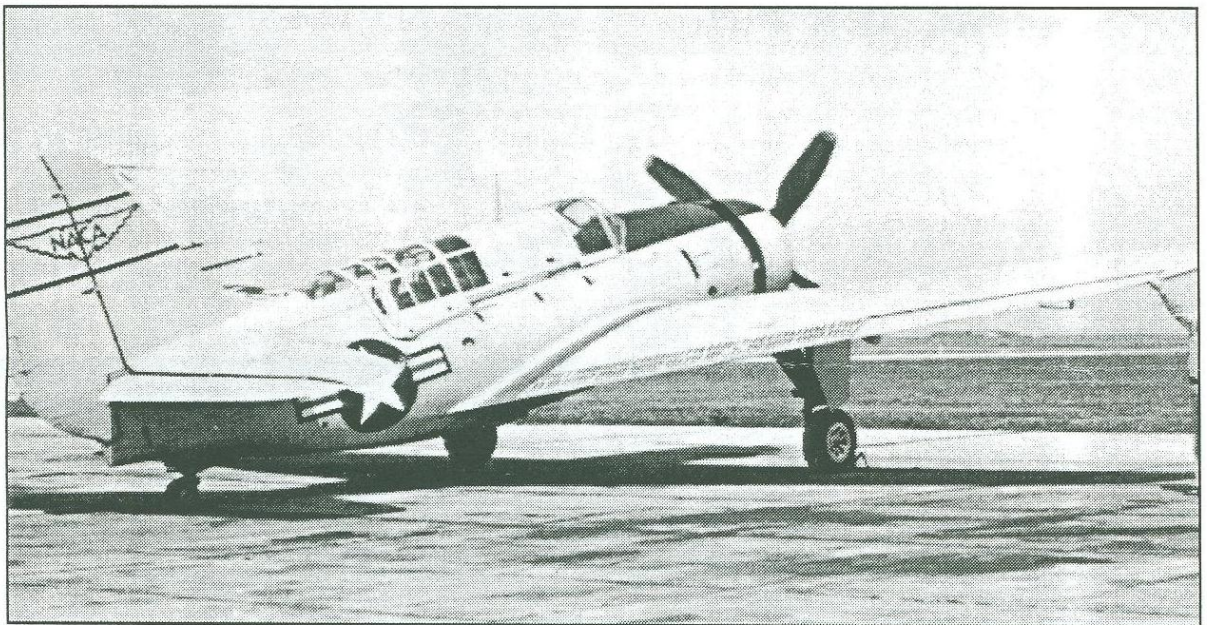
I prefer 1:48 scale for the NACA/NASA odd birds because there are no stock decals and I am barely able to do markings that I would be willing to show in 1:48, much less in 1:72. If this is not a problem to you, starting with the *Matchbox* kit and modifying a P-47 prop to fit might be the better choice. F8F canopies are available from *Squadron/Signal* in both 1:72 and 1:48. They will require some fitting because the curvature of the deck differs from the F8F. The air-data booms on each wingtip are the same as those shown in the glide-test P-51 article. You may note two apparent white stencilled markings, below the windscreen and on the tail. I can't read them, even on the original photos, and Howard Turner doesn't remember what they said, although the front one does not say "experimental" as I suggested. NACA craft were not required to carry that marking, and never did.

As for the massive block-letter notation "TEST" on the side of 147 and many NACA Ames birds, surely it left little doubt as to what the planes' purpose was. Howard Turner explained how that marking came to be used.

Naval Reserve fighter jocks from NAS Alameda were in the habit of practicing attacks on anything looking like an unsuspecting military aircraft, which was true of most of the NACA birds. On several occasions, Ames pilots

with their heads glued to instruments or scribbling notes were bounced by playful fighter pilots, which had a detrimental effect on their research abilities. Since they figured that a midair collision would not be helpful to most of the projects they were working on at the time, Ames people added the "TEST" marking to discourage these "bounces."

Now and then, though, an Ames pilot did stay around to play. Ames had a pair of F5D *Skylancers*, at the same time that the F4D was in widespread service. The two types looked much alike from a distance, although the F5D was a generation newer and an incomparably better performer. A very proficient Ames test pilot, aloft in one of the F5Ds one day, was attacked despite the telltale markings. He abandoned the test plan and proceeded to give the reservists a very embarrassing flying lesson, and then made it to the O-Club in time to eavesdrop on them puzzling about how they got outflown *so badly!* The Flight Ops guys at Ames are to this day still laughing about this.



NACA 147 at two stages in life: at top, the drone-yellow, conventionally-configured dive test bird, and below, the bubble-topped SB2C-5 following its modification. In both incarnations, the lower gear doors have been removed.

Detailing a Bosnian peace keeper Warrior

Continued from page 1

must come to a complete stop before engaging an enemy if there is any hope of hitting the target.

• Unlike the Bradley and Russian BMP series, the Warrior has no provision to fire infantry weapons from inside the vehicle.

• Although the Warrior can ford streams, it has no true amphibious capability.

Minicraft's kit, like the real vehicle, is almost flawless, but it does have its shortcomings. The kit gives you the option of building one of three variants: a standard MICV in British service in West Germany, an up-armored *Desert Storm* variant, and an up-armored version serving with UN troops in Bosnia.

I couldn't resist the temptation to model an all-white UN Warrior, and armed with some reference materials and some news footage, I examined the kit. At first glance, the molding will knock your socks off! Note the word "fuel" engraved on the fuel cap, the delicately molded handholds and cargo cages around the running lights, and the factory numbers molded on the hatches. I sometimes replace some of these parts with brass wire or stretched sprue, but this time the molding was near-perfect.

Before you think I was paid off by the good folks from *Minicraft*, let me add that the kit suffers from the same snafus that plague most armor kits. I'll point out these minor glitches as we build the kit, step by step.

Step 1: This step entails the assembly of the wheels. I didn't alter anything here, but just sat back and admired the perfectly-molded bolt patterns on the wheels before moving on.

Step 2: Here we add the suspension to the lower hull.

Although the suspension arms have "D" tabs for positive alignment, there is enough play to allow you to build your Warrior "roughing it" over terrain. I don't know if this is by accident or design, but it's a darn good idea! Make sure you add the idler wheel suspension arms first, then glue parts A52 to the suspension arms. The instructions weren't too clear here, but I think that's the only way the parts will fit correctly. The front towing eyes have ejector pin marks that have to be removed (see—I told you this kit wasn't perfect!).

Step 3: This step would have you add the wheels now, but like most armor modelers, I left the wheels off until after the kit was built and painted. Leave off B15 if you're planning to use the add-on armor.

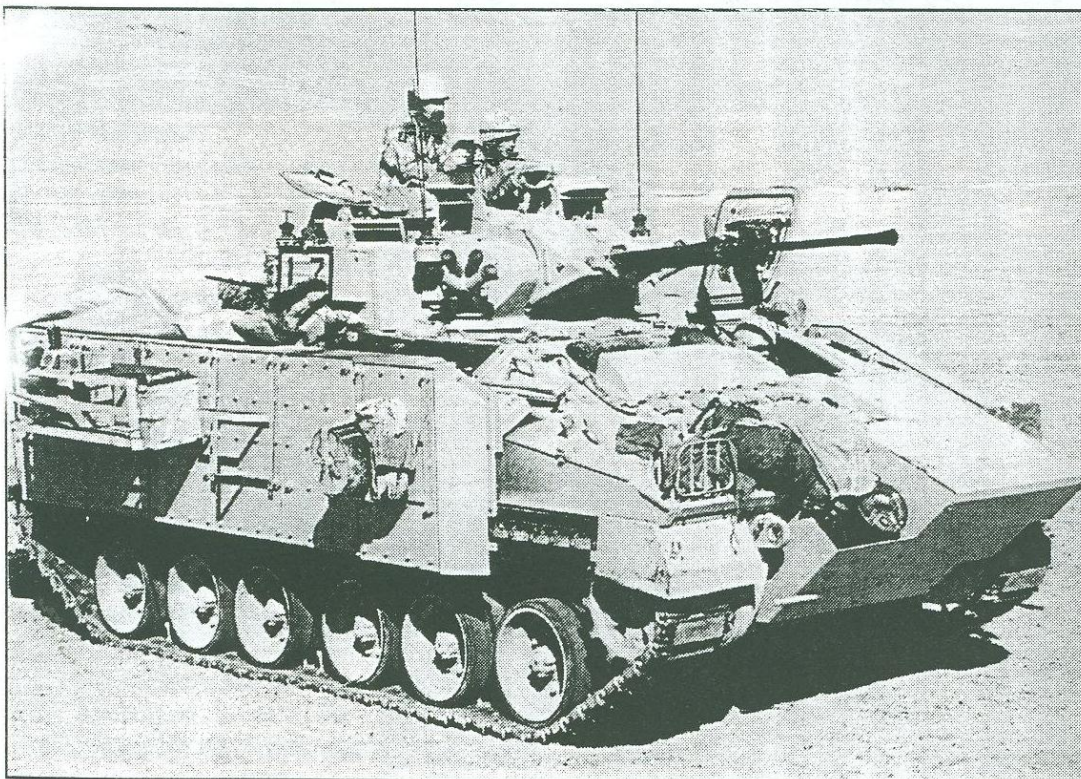
Step 4: This is the rear panel assembly. From every picture I could find, it does not appear the external fire extinguishers are correct, nor are they "olive drab" as the instructions suggest. For accurate extinguishers, see the ones in the *Tamiya Challenger*. The kit extinguishers leave you with a couple of options:

1. Add the kit-supplied extinguishers, paint them flat green and not olive drab, and hope no one notices.
2. Steal the ones from the Challenger kit.
3. Leave them off altogether, and scratchbuild the empty holders from styrene strip with straps made from the runners of left-over brass detailing sets.

I opted for the third choice, with some pretty credible results. Speaking of fire extinguishers, none of the pictures I found showed the extinguishers mounted at the locations shown in the instructions. I filled the holes in the rear door and rotated the location of the extinguisher on the rear panel 90

degrees, moving the extinguisher up to the upper left corner (see the rear view on plate G of the *Osprey* book on the Warrior). Incidentally, I could not find any photos that showed the wire reel in the location shown in the instructions. It looks to me like it would foul the opening of the rear doors. I kept the wire reel, though, and I'll add fine wire after I paint it, then throe it in one of the stowage bins. The rear tow hooks, parts A18, also have ejector pin marks that need to be filed off. Now is a good time to saw off the large alignment lip at the top of the rear panel. This is supposed to help you align the rear panel to the upper hull, but I found that mine fit better after I removed the overhanging lip.

Step 5: Now, add your



A Desert Storm Warrior from the 7th Armoured Brigade, showing the add-on armor to good effect.

completed rear panel to the lower hull. I found a slight step where the rear panel met the side of the hull, but I filled it easily enough with .040 strip. After you add the wheels, tracks and add-on armor, you probably won't be able to notice it anyway.

The best part of building this kit—no individual-link tracks! Although they look great, I hate assembling those darn things. This kit's old-fashioned vinyl tracks look great, and most of them are hidden by the track skirts and add-on armor anyway. As usual, I waited to install the tracks until after everything was painted.

Step 6: Before gluing the upper and lower hulls, now might be a good time to remove the molded-on straps on the right upper hull. After I did this, I glued the upper hull, the lower hull and the rear panel together—the key point that determines a kit's fit. There was a minor gap at the front, but this will be covered over later in step 8 by part C25. The upper hull-rear panel junction was a little more disappointing, but not by much. After letting this assembly dry overnight, I added a little bit of filler and sanded the seam until I was satisfied. Luckily, the Warrior is built pretty much in the same way, so a small seam is not totally inappropriate.

The engine compartment "lid" has about a bazillion tiny handholds to add, so I gave my tweezers a good workout. After some carpet-scuba for dropped handholds, I added the completed assembly to the upper hull. The fit leaves a small gap all the way around, but I don't think it's out of scale.

Before you add the lifting eyes, file off the ejector pin marks. As is standard procedure for me, I drilled out the

lights and added MV lenses after I painted the entire model. I also drilled out the turn signals and position lights on C18, and replaced those with clear lenses after painting. I now glued the periscope lens to the periscope assembly for the driver's hatch. The fit here also left a small overhang, so I filed and sanded until it looked like one solid unit.

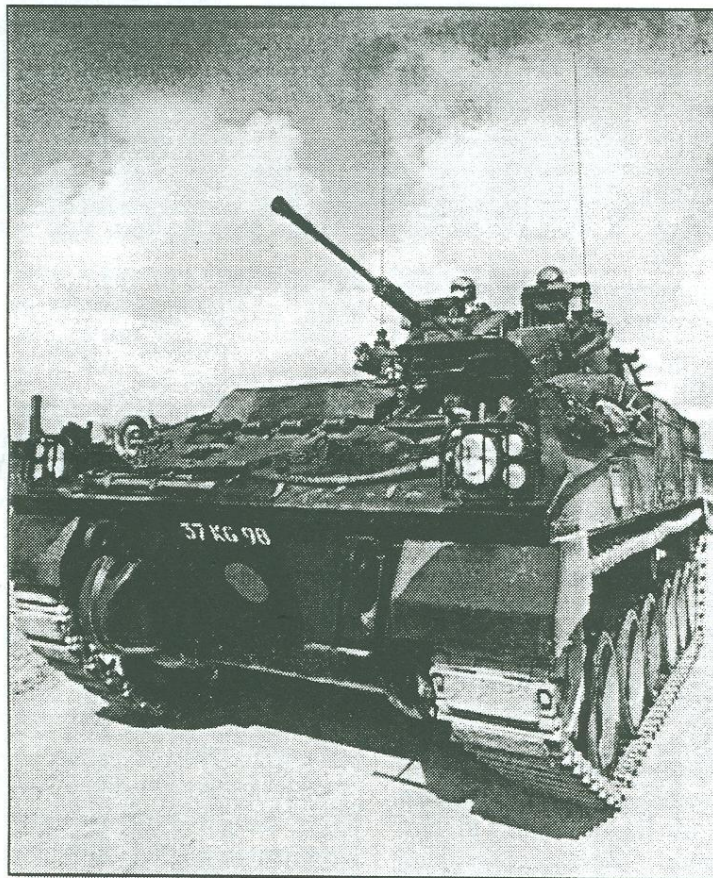
Three notes of caution if you're going to leave the driver's hatch up. One, anyone will be able to see the lack of any interior (maybe in my next Warrior kit...). Two, you'll have to fill and /or sand some ejection pin marks on the inner surface of the door. Third, if you're painting this as a UN vehicle, remember to paint the interior hatch olive green, not white. In every photo I've seen so far, all the hatches on the UN vehicles has been left the original olive green color. I took the easy way out—I glued the hatch shut!

Keep the shovels off the vehicles until you finish painting. All the UN vehicles' tools were painted flat black.

Step 7: Most of the UN vehicles I've seen have the left rear hull storage bin moved to the front glacis plate, above the front add-on armor. I decided to "personalize" my MCV the same way. I carefully removed the alignment lip for the storage box from the left rear hull, and save the storage box for later. Part A25, and the other similar parts (A23—A26), are used on the real vehicle to hold poles that support a camouflage net. I drilled out the supports with a #78 bit. After giving my tired eyesight a rest, I assembled the two rear storage bins. I drilled out the rear lights on parts B19 and B20, and used clear lenses after completing overall painting. Since I needed access to these drilled-out holes later, I left off the light guards until after I added the clear lenses. I also left off the mud flaps until painting was completed.

Step 8: I added the headlight cages, but left off the front guard until after I installed the clear lenses. With a little filling and sanding, C25 will cover the gap at the front of the hull and blend in nicely with the upper hull. Again, I drilled out the camouflage net support tubes on A23 and A25. Also, I left off the inaccurate fire extinguisher, and built an empty rack. I cemented the hull roof doors closed. My warning about open hatches from step 6 also applies here. Since I was going to upgrade my Warrior with add-on armor, I left off the track skirts.

Step 9: Nothing unusual here. I left off the rear view mirrors until after competing assembly and painting, since these are flat black. If you plan to use the add-on armor, saw off the front part of the right side skirt, right



Front view of an early Warrior. The turret mounts a 30mm main gun.

behind the fourth bolt head from the front. You'll need this part to cover the gap in the front of the add-on armor. Another choice is to fill in the forward-most slot for the side skirt, right above and behind the drive sprocket, if you opt to leave off the side skirt altogether. I've seen photos of up-armored vehicles either way, with or without the side skirt.

Step 10: Get out your #78 drill bit again, and drill out the camo net supports in parts A24.

Step 11: Here is where my relationship with the Warrior soured. The fit between the turret and the turret bottom stinks! These two pieces left large gaps on both sides of the turret chin area to the left and right of the mantlet. This took some creative filling and sanding to avoid changing the curved shape of the turret chin. To *Minicraft's* credit, both the coaxial machine gun and the end of the 30mm gun are hollow.

Just for the heck of it, I deepened the barrel of the machine gun, but I probably didn't need to. Both weapons were left off at this point, since they are painted flat black as well. I also drilled out the depressions on parts A21 with a #76 drill bit before I added them to the mantlet sides.

Steps 12 and 13: More bad news: both antenna mounts had huge sink marks (more like sink holes) on their top surfaces. Again, more careful filling and sanding, so as not to damage the delicate antenna "pots." I drilled out the antenna pots, in anticipation of adding some stretched sprue antennae. The commander's and gunner's hatches also suffered from ejector pin marks on the inside surfaces, so if you're going to show them open, more filling and sanding is in store. Again, remember the interior is olive green, and you might wish to add a pull-down strap while you're at it. Refer to any photo of an open hatch and you'll see the prominent strap. I decided one of the hatches would be open on my model, so I detailed one and glued the other shut.

For the last time, use that #78 drill bit to open up the camo net supports on parts A26. If you take a look at the box art, you'll notice a small junction box behind the smoke discharger assembly. You'll need to create a small box from scrap plastic for each side. Align it vertically under the lifting eye and horizontally with the middle of the smoke dischargers. Then use stretched sprue to replicate the small wire from the box to the smoke dischargers. I added a GPS antenna between the two hatches, using 3/8" rod with styrene strip on top. Leave off the sides of the turret basket for now; it's easier to add these to the turret basket first, then cement it to the turret (guess how I made this discovery?).

Step 14: I opted to leave one of my turret sights uncovered and the other covered. The uncovered one was no problem, but the covered one took some work. If you're going to show the sights covered, saw off the portion of the front cover below the 90 degree bend. If you don't, the front cover won't fit in the closed position. The fit of the parts that make the cover are fiddly—careful alignment, lots of patience and some filling and sanding may be needed. Each sight is made up of nine pieces and is no bigger than your thumbnail!

Cut out the wire mesh and use super glue to cement it to the rear basket assembly. Brass screen might have worked better, but I used the kit-provided screen without much trouble, I now added the sides of the turret basket to the turret basket back and bottom, and cemented the entire assembly to the turret. I replaced the thread provided for the tow cables with picture hanging wire. Leave this, and parts A53, off the model until after painting.

Step 15: You'll need to enlarge the notches in part C14 where it comes into contact with the front glacis for a good fit. Dry fit the front add-on armor, and remove any molded-on details that interfere with a good fit. Even after this, you'll need some



A Warrior on the move in Bosnia. Note the large 'U.N.' notation on the front glacis.

strip styrene to fill the noticeable gaps between the add-on armor and the hull. Add a .40 reinforcing strip to the inside corners of the bow storage compartment next to the armor blocks. I added some *Grandt Line* bolts to these reinforcing strips, as per my documentation. Halfway down the right side of this storage compartment, add a 2mm section of styrene rod. Half of this should hang over the side of the front section, and serves as a step for crew members. Add some stretched sprue antennas, and assembly is complete!

Painting: I undercoated my Warrior with *Floquil* light gray figure primer, and followed up with three coats of *Polly Scale* white. I painted the following items black: rubber wheels, water cans, cannon, coaxial machine gun, antennas and antenna pots, rubber lids on smoke dischargers, and mud flaps. I painted the tracks gunmetal, and the rubber track pads black-gray. The tow cables were also painted gunmetal.

Then I added clear lenses to all the turn signals and position lights, using five-minute epoxy. On the front, the top position light next to the headlight should be clear, while the bottom ones should be clear orange. At the rear, the top two turn position lights on each stowage box should be clear orange, and the bottom one should be clear red. There is also a red reflective strip between the two top orange lights. Speaking of lights, I added *MV* clear lenses to my previously—drilled out headlights.

The rear vision port and all periscopes were painted gloss black, and the commander's sight gloss blue. I then added a couple of coats of *Future* acrylic wax to heighten the gloss effect.

Instead of using the kit decals, I decided to personalize my markings. The only decals I used from the kit were the British flags, the yellow bridge-weight circle and one registration plate. For the large UN letters, I opted to use dry-transfer letters instead of the kit's decals. I used 36 point Helvetica medium letters for the large lettering on the side armor, and 24 point type for the front and rear markings. I applied the

British flags to the front and rear right fenders, the bridge-weight circle to the front add-on armor, and the registration plate to the left rear storage bin.

For a splash of color, I added UN flag markings from a *Tamiya* decal sheet to the sides of the turret, and a UN flag from *Verlinden* to the right radio antenna. Don't be too concerned with the exact combination and placement of all the markings—the footage and photos I've seen show different locations and sizes.

I kept my weathering to a minimum, because I wanted to preserve the rather immaculate look of the vehicle. Despite

heavy usage and some rather foul weather, most footage shows some pretty clean vehicles.

I added all the left-over add on parts at this time, then strategically placed some rucksacks, tarps and water cans around the various bins. Don't go overboard on the stowage—most of these vehicles operate from secure positions, and only on short patrols and convoy escorts, negating the need for the usual ton of junk topsides.

Well, there it is. An unusual, rather colorful paint scheme (for armor, anyway) on a relatively easy-to-build and well-detailed kit. What could be better?

LETTERS TO SVSM

Editor:

In the last issue of the *Styrene Sheet*, you discussed IPMS/USA's proposal to require National membership before one could belong to a local chapter and commented that newcomers might pass up IPMS entirely. You invited comment. OK, here's mine...

Not only might newcomers pass up membership, but some old-timers might abandon IPMS. I surely qualify as old-timer: my first model, circa 1943, was a *Hudson* in a constant fit-the-box scale of, oh, I suppose about 1:113.5 or so, with pine fuselage and nacelles and cardboard wings and tail. I encountered styrene and "serious" modelling in about 1972 but didn't join San Jose Scale Modelers until about 1980. I miss more meetings than I attend, but enjoy the people I meet there and I enjoy the *Styrene Sheet*, enough that I have tried to make my contribution to modeling, the chapter, and my NACA/NASA heritage by writing for it. But even a great newsletter is complemented by being able to catch Bert or Mike or Chris to ask, "But how did you do it? It didn't work at all for me!"

But what does IPMS/USA offer me? I'm not unaware of the organization: when my son was young, I got him a birthday membership for several years, and we read quarterlies together, but as he drifted out of the hobby, I quit subscribing. The magazines were often filled with Society arcana that I found irrelevant. Articles were sometimes interesting, but I couldn't catch the writer next meeting and ask questions. Lacking that, I would consider my \$19 far better spent if put toward a subscription to *Scale Aircraft Modeler*.

I have no plans to ever go to Nationals; I am not a good enough modeler to have a chance to win, and I have no penchant for futile gestures. It's not simply a matter of going to clinics another night a month; I have a certain number of hours of modelling available in a year, and given my skill level, I'm not going to commit all of them to one model. I save myself stress by just declaring Nationals irrelevant. So what's in IPMS/USA for me?

I haven't heard a convincing answer to that question, so it is irritating as hell to me that they try to force me to join by forbidding my membership in SVSM. You'd lose not only newcomers, you'd probably lose me. Does IPMS/USA give a damn? Does SVSM? Up to y'all.

If IPMS/USA is actually interested in building membership, rather than in futile gestures, I can suggest two approaches, now. Some brainstorming would doubtless produce lots more.

(1) Every other meeting or so, Rodney Williams gets up to extol the advantages of membership, and tells us we ought to all join and go to Nationals because all of us would win prizes. It's all transparent B.S. but now and then he doubtless has a success. All IPMS/USA has to do is make sure that every chapter has somebody just like Rodney (if, indeed, there is anybody quite like Rodney.) That would probably maximize the gain for IPMS/USA for minimum cost to locals (provided only that they keep it a bit shorter than Rodney's average 27.5 minutes per pitch.)

(2) If most people are like me, they have a half-dozen friends interested in modelling to a degree, some of them perhaps very good, but not involved in any way with IPMS, either local or national. *Why aren't they?* Think: you go fishing, you're not catching anything, shouldn't you consider changing the bait, or where you're fishing, or something? Let Nationals work up a survey, and send five copies to each member for their non-member friends. *What do you think IPMS is like? What sort of folks do you think attend? What would it have to be like for you to join? If it comes with a magazine, what should be in it? What should happen at a local meeting?* Then, armed with some data, the nationals gang can decide whether they want to go where the interest is and try to create more, or continue to preside over more of the same-ol', same-ol'.

They might wish to consider where "More of the Same" will take them. Over 25 years, and within my radius of activity, I have seen perhaps two dozen good sources for scale modelers close, from little hobby shops to the well-stocked shelves of discount stores like Bay Mart and Gemco. Possibly two have opened. Presently, the only place where kids out shopping with mom can encounter plastic kits is Long's Drugs, and their display space is half what it once was. Meanwhile, all the excitement in the hobby seems to be centered on aftermarket add-ons, available through two local hobby shops (plus mail order), which provide the means to sink \$60 or more and 300 hours into a 1:72 scale kit, good enough to compete seriously at the Nationals (provided you join IPMS/USA). If SVSM and IPMS/USA does not find a way to catch the interest of those kids out shopping with mom, 30 years from now the mean age of IPMS members will be about where I am now.

As for me, I enjoyed modelling before IPMS, I expect I'll enjoy it after, and I have kits to last me the rest of my life, whatever IPMS/USA decides.

—Bob Miller

Bringing out the best in wartime carrier decks

By Bert McDowell

•Part 2 of 2•

Carrier decks can be a colorful part of a shipbuilding project, and since most of the 1:700 World War II carrier kits are of either U.S. Navy or Imperial Japanese Navy carriers, we'll explore the markings these ships wore topsides.

The U.S. carriers had deck markings that changed little over the course of World War II, at least as viewed through black-and-white photos. The Japanese, because of their circumstances, displayed a greater variety of markings. We'll look at why they painted them the way they did first, and then examine how you can duplicate these markings in miniature.

The Japanese carriers started the war with bare teakwood decks and white guidelines. Many had red and white warning stripes on the stern ramps, and a few used a large circle centered near the rear of the deck which served as an aiming point for aircraft as they came aboard.

The four carriers at Midway (*Kaga*, *Akagi*, *Soryu* and *Hiryu*) had a large Hinomaru on the forward part of the deck. Later in the war, a few decks were camouflaged to look like other types of ships. It is best to consult photos, sketches, kit instructions or any other reliable reference source you can find,

since no two decks in the IJN were marked in exactly the same way.

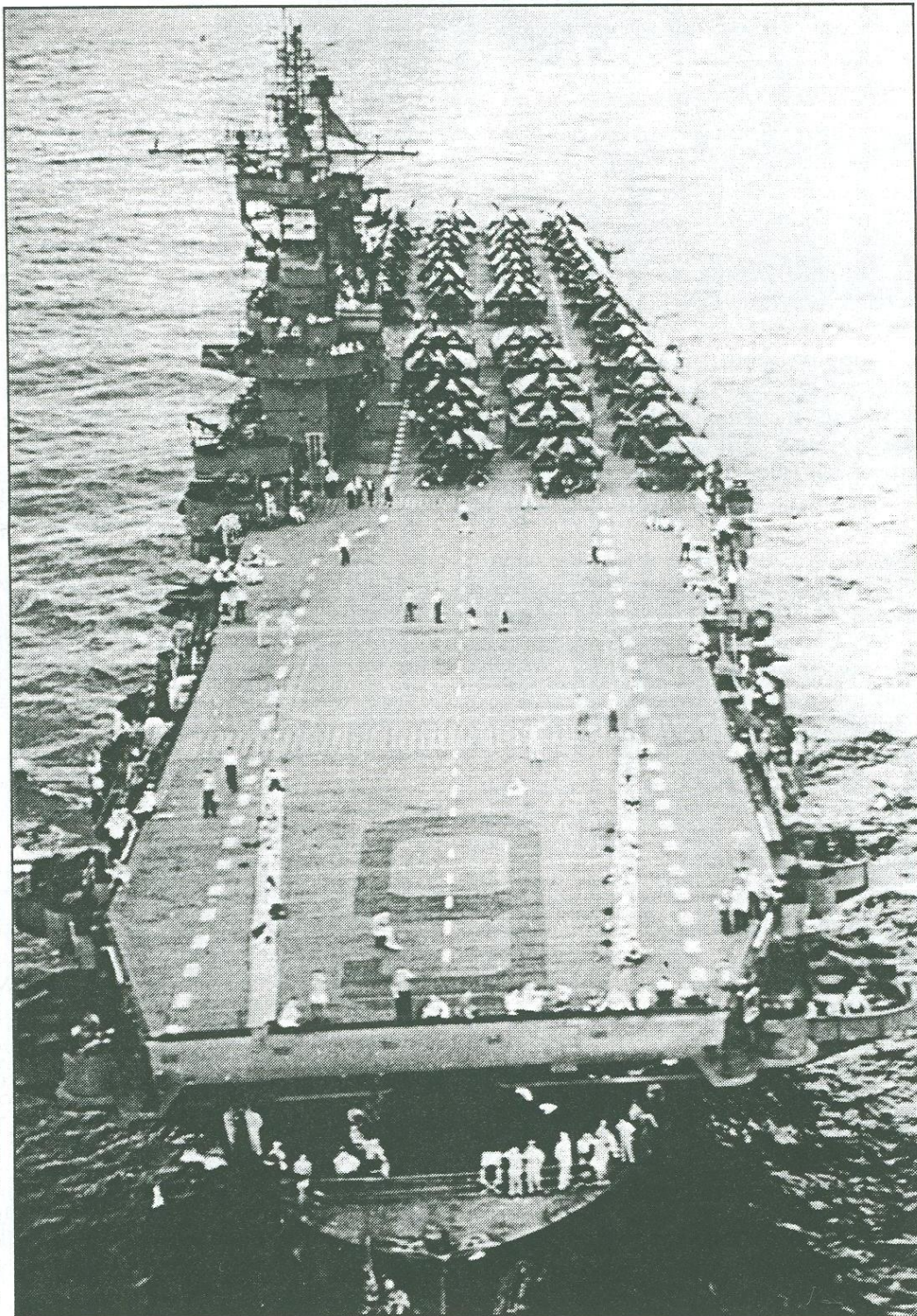
The U.S. Navy deck markings are well documented. Just before WWII, flight decks were marked with chrome yellow identification letters and solid guidelines on a mahogany-stained deck. Then in late 1941, a blue stain was introduced and dashed gray guidelines were used. Unfortunately, the old mahogany stain bled through the new blue stain at first; this could leave the modeler with a creative challenge in

weathering if an early WWII subject is chosen.

After some experimentation, the USN settled on an organized system of deck markings by late 1943. The decks were stained with #21 stain, a blue almost as dark as 5-N / Navy blue, and the guidelines were white (and/or yellow in the Pacific).

Generally, elevators had "X's" and surrounds in white or yellow. But, as always, there were enough exceptions to these directives to make it worthwhile for you to check your references and photos before you begin planning.

With mass-production introducing large numbers of carri-



Enterprise in 1944. By now, the addition of deck numbers and type 21 stain have been standardized.

Essex-class fleet carriers, nine *Independence*-class light carriers, 50 *Casablanca*-class escort carriers, etc.), an innovation was adopted—deck numbers. These were the only way pilots could recognize their own ships, so the hull number began to be prominently displayed on the deck.

To preserve the fine detail of a 1:700 deck, I suggest you use and airbrush. It's perfect for the subtle shading and toning of the various tans you'll use when simulating wood. I also like to avoid decals for things like guidelines and deck numbers. Yes, I know about

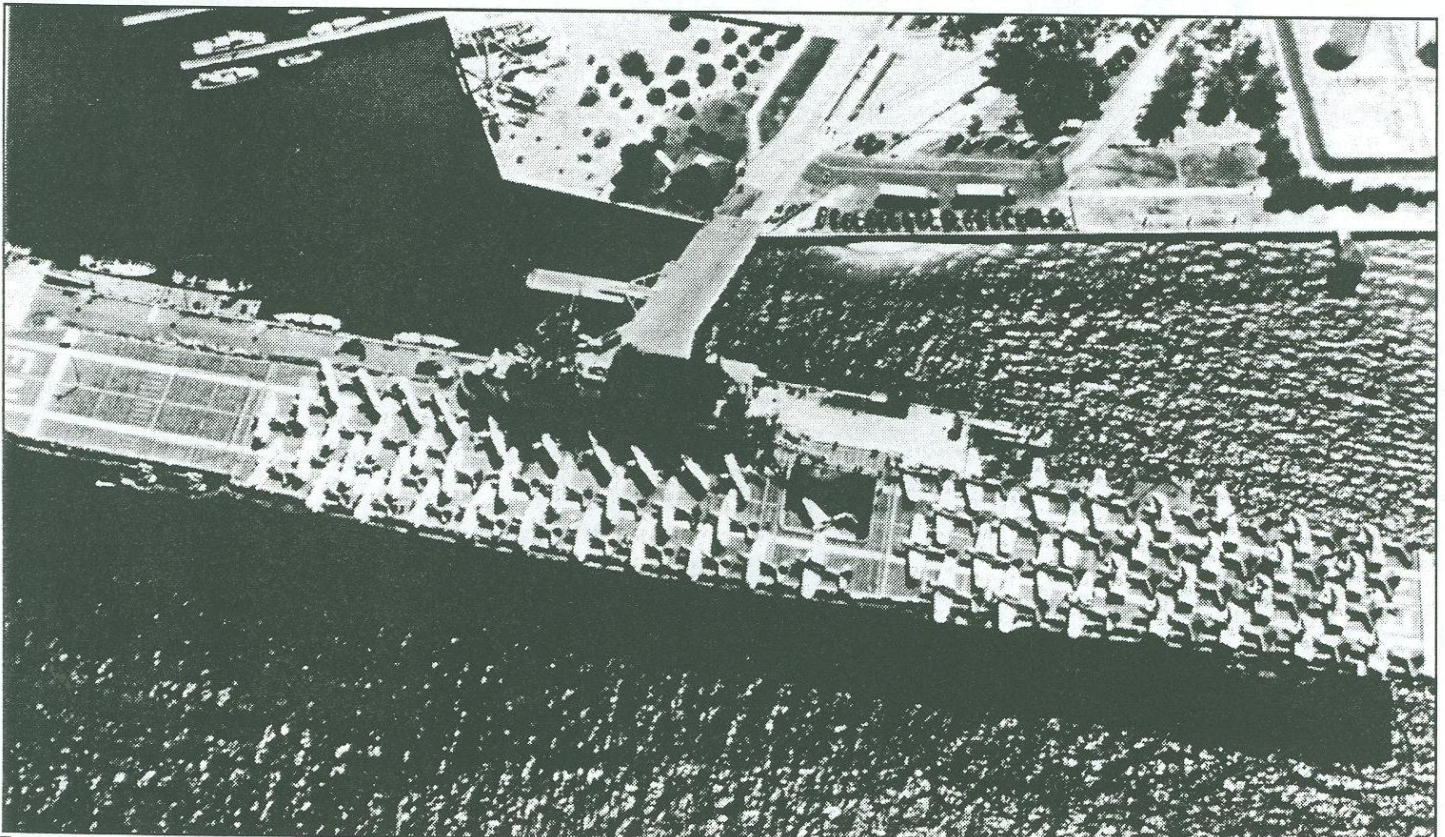
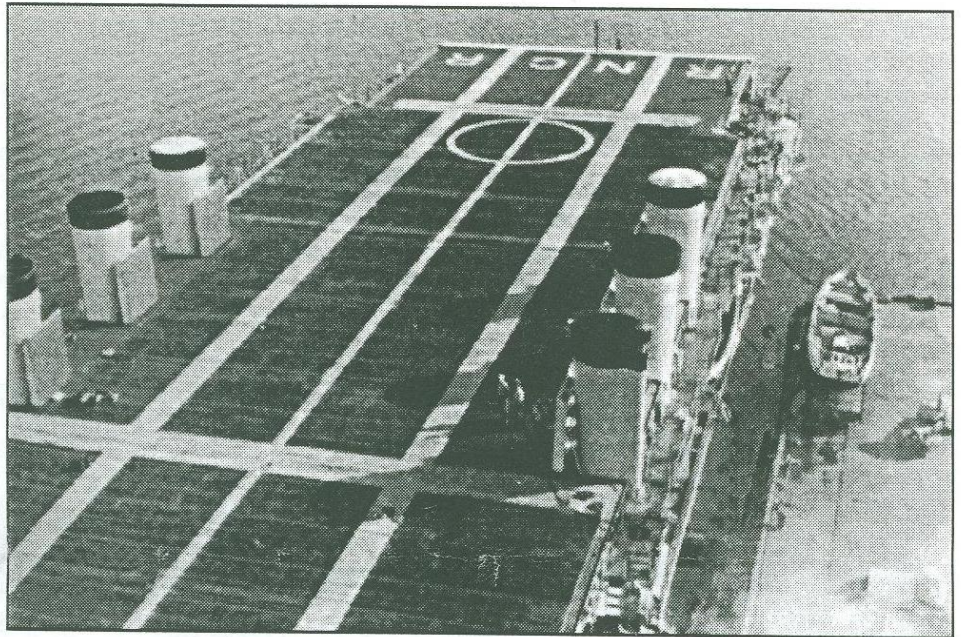
Solvaset, but even if a decal snuggles down well, you can't weather it as well as a painted marking. I mask all deck markings, which is easier than you think. Why this is should become apparent as you read on.

The first coat of paint is the wood color, of course. A variety of tans in uneven swipes with the airbrush work best, particularly if the colors are all mixed with white (a wood deck bleaches out quickly under ocean skies). Simulating a wood deck with paint is more a science than an art. The modeler's artistic license takes over here when trying to imitate the teak decks of the IJN or the Douglas fir of the USN. On my models, I use a mix of *Floquil's* railroad paints, such as "foundation" (#110084) and/or "mud" (#RR 83) with a liberal addition of white. In the case of pre-war USN carriers, an equal mix of *Humbrol's* MC-22/brown or #113/rust and MC-24/natural wood (or #110/wood) can approximate the mahogany

stain. You can get a good look at the mahogany decks in the old movie *Dive Bomber*, a 1941 Errol Flynn vehicle shot in Technicolor. The action takes place aboard the deck of the U.S.S. *Enterprise* (CV-6) showing the red-brown deck (a dark-brown-crossed-with-terra-cotta color) with the guidelines in a chrome yellow, a color similar to the double yellow line on your local highway.

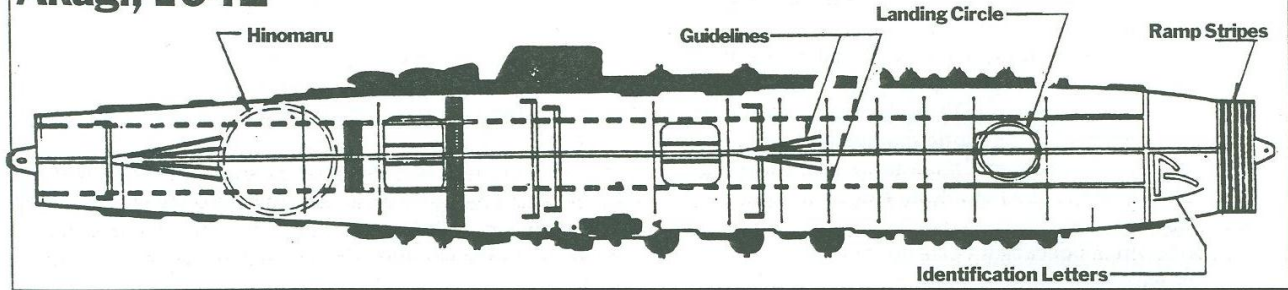
I use *Floquil* because it makes a tough base coat for weathering (again, I'll explain why that's important later).

The next step is optional, because of the amount of work involved, but it does enhance the deck detailing. On the USN WWII carriers, you can have various bits of steel shown on the



Pre-war USN markings: at top, the *Ranger* shows her chrome-yellow guidelines and 'RNGR' deck letters; at bottom, *Enterprise* in 1938.

Akagi, 1942



deck, such as tie-down strips, expansion joints and elevator framing, where the deck stain has worn away. To paint these details, I use a painting template made from 8-1/2" by 11" press-on label sheet.

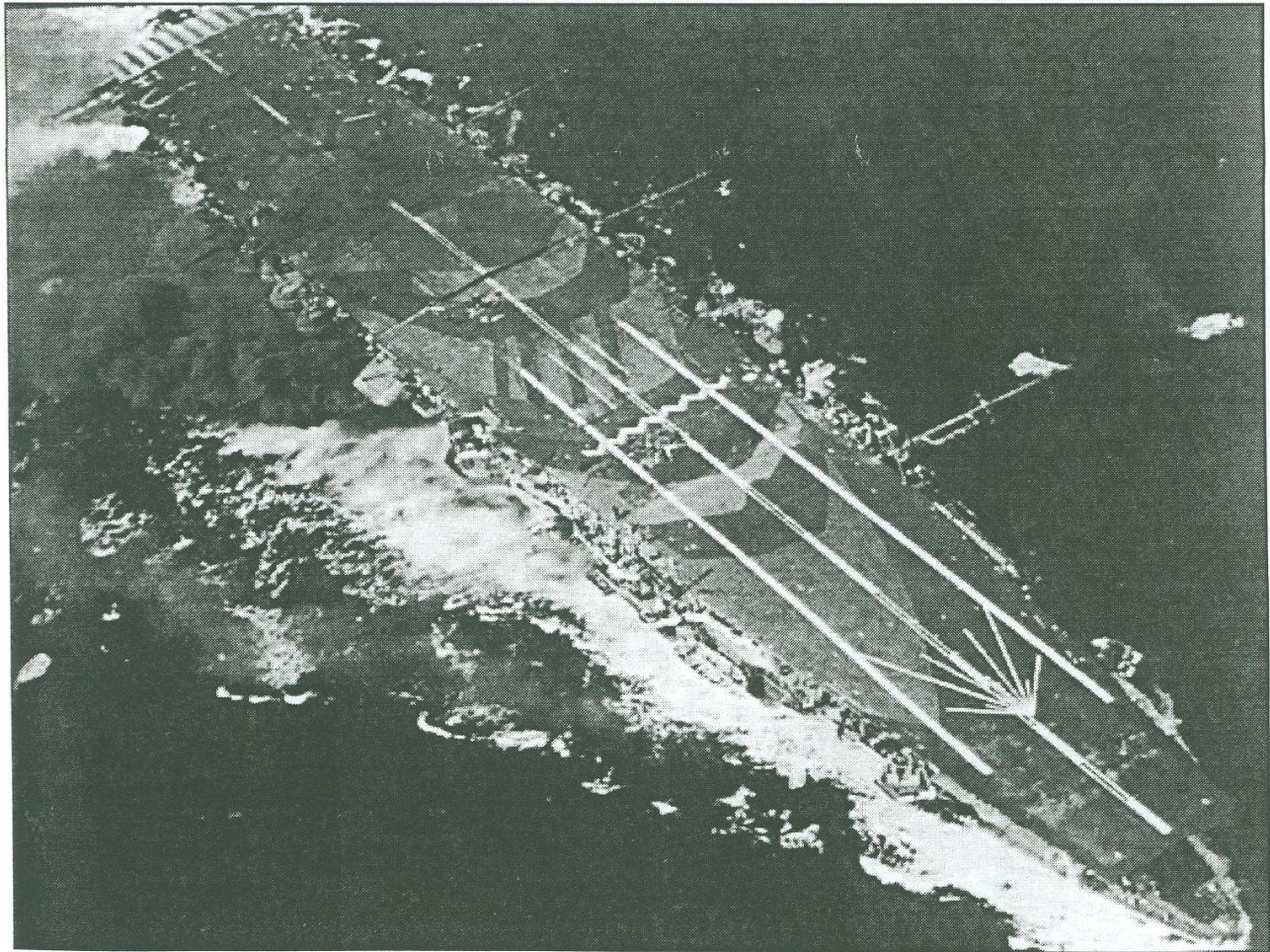
My favorite way to make a template is to get a drawing the exact size of the model's deck, place the label sheet in the paper tray of a photocopier, and run a copy of the deck drawing right on the label paper. I had to split the image at the expansion joint of the *Essex*-class carrier to get the entire deck on a single sheet, but smaller carriers will fit on one piece.

Cut out the details with a sharp X-Acto knife blade, locate the template on the deck and spray some fine coats of *Floquil*

dark gray from an angle perpendicular to the deck (to minimize leakage under the template). The catapult and elevator framing locations are best done with a separate template using the same technique. Make the gray an even coat of paint, but not too heavy; we're working in 1:700, remember.

The next step for wartime USN carriers is the application of the "stain." From here on, use *Humbrol* paints. I've been using *Humbrol's* HU-5/Intermediate blue or #96/RAF blue to represent the #21 stain. Apply the deck "stain" in uneven coats, allowing some of the wood to show through on the high-traffic areas of the deck.

While waiting for that coat to cure, you can make up



Fanciful Japanese deck camouflage is exemplified by *Zuiho*, 'disguised' as a cruiser or battleship. This paint didn't dissuade U.S. Navy planes from sinking her shortly after this photo was taken during the Battle of Leyte Gulf.

another template of the deck, this time with the guidelines cut out. Most of the drawings I've used have these markings drawn on them, but you may have to draw them in yourself if they're missing. You can also use tape to mask off the deck and the dashed guidelines.

After placement of the template or masking, spray a fine coat of white (or yellow) for the dashed lines, using the same uneven strokes you used for the deck stain. Always allow some of the "stain" to show through faintly to simulate weathered deck markings. The deck identification letters or numbers can be done in the same way.

ever, cutting perfect circles in the template may be difficult without a draftsman's tool made for the job, which may have you tilting towards decals for the Hinomaru and the landing circle. Also, the red and white warning stripes on the stern ramp can be done easily with decals. Some hobby shop railroad sections have decal striping with spacing the same width of the stripes.

There were no tie-down strips on Japanese decks; instead, there were small tie-down slots, too small to be seen in 1:700. There were expansion joints, and that might be enough detail to justify the modeler's effort to duplicate the steel on the

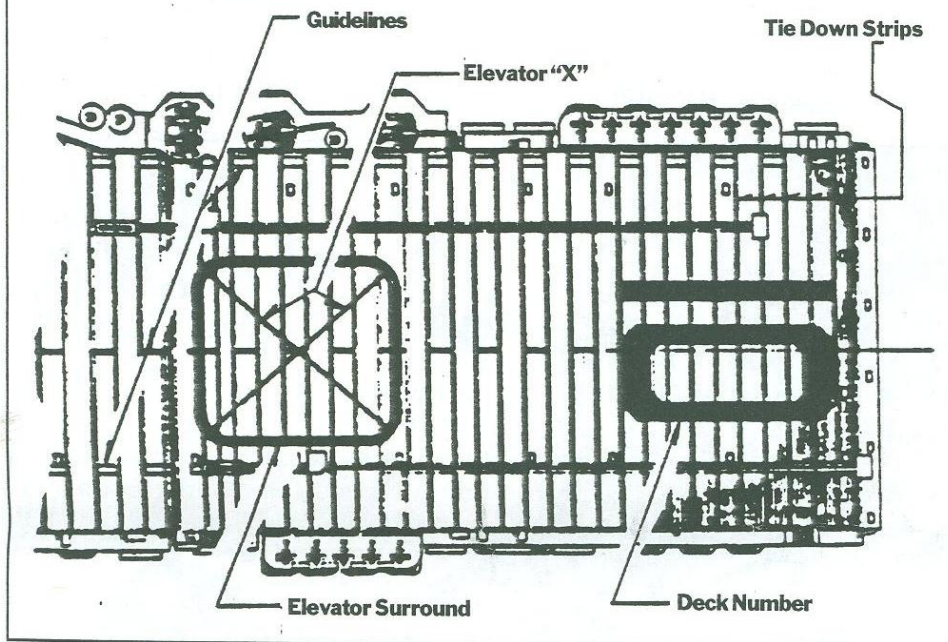
deck. That leaves the modeler with a choice: paint or decals. Whichever one you choose, be consistent; a mix of paint and decals looks bad on scale ships.

I do not know what to say about the late-war camouflage pattern used on the IJN decks. The two articles I've read vary so widely on the colors used that I cannot in good conscience mention them. The pattern layouts for a couple of the ships exist in an Office of Naval Intelligence report, but I have yet to see this document. I hope that a reader might have something to contribute on the camouflage question, because any concrete information on these bizarre markings would be welcome by the entire ship modeling hobby.

A final note: do all this painting, masking, and rubbing BEFORE you permanently attach the flight deck to the hull. I know that most ship modelers know this, but, just in case a rookie shipbuilder

gets ahold of this, it's worth mentioning. The character of the whole of model shipbuilding usually requires the painting of subassemblies ahead of time. Painting the underside of a flight deck after it has been glued to the hull can be very exciting, but so was a Kamikaze attack. Plan ahead and you can avoid the pitfalls.

U.S. Navy Carrier Deck



Speaking of deck numbers, note that the USN style was a unique block pattern in a 5-to-2 vertical proportion, with the horizontal lines thicker than the vertical lines. I still haven't found these in decal form yet, which is why I use a painting template.

Also, about drawing your own dashed lines: check your photos first. The dashes generally were spaced between alternating tie-down strips. Of course, there were exceptions, but if you have no reference material on the ship you're modeling, check out a photo of another ship in the same class, taken at the same time period. Because of the standardization achieved by that time, percentages are in your favor that the markings in the ship in your photos will be similar to the one you're building.

Now, with all that done, weathering begins, and it is simple. Get a white draftsman's eraser and begin rubbing in the direction of the deck planking. The reason for using *Humbrol* over a base coat of *Floquil* is that the *Humbrol* will come off without disturbing the base coat below, unless you rub too hard. When enough "wood" shows through to your liking, brush off the rubber bits to clean the deck.

That's the technique for USN carriers; IJN carriers take a little less work. After the wood colors are applied, all that's left are the white guidelines. These can be applied in the same manner as USN markings. How-

U.S. Navy Deck numbers (1:700)

1 2 3 4 5 6
7 8 9 0

The N1K, part 2: Aoshima, Hasegawa check in

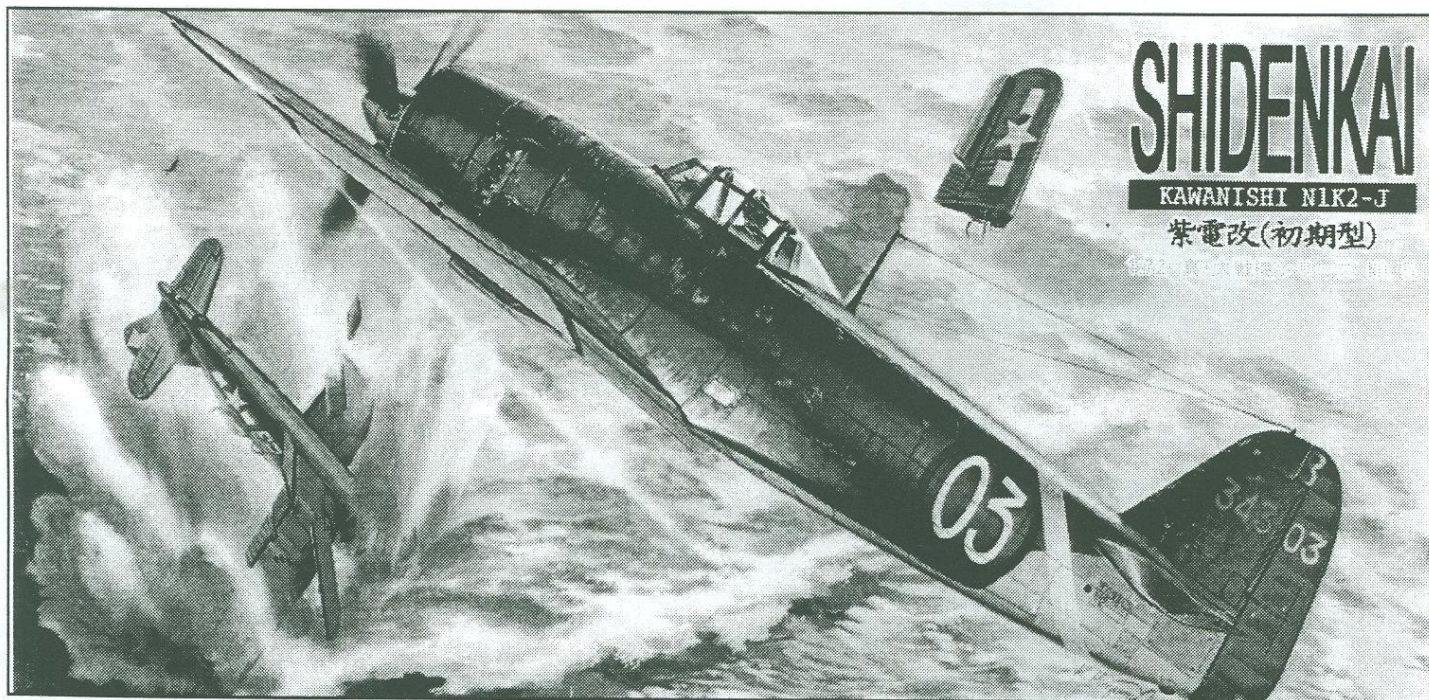
By Chris Bucholtz

(Editor's note: The first part of this two-part article appeared in the March 1996 issue of the Styrene Sheet. Unfortunately, a temperamental computer zapped the middle of the article, and I didn't catch the error until the issue was in the mail. Fortunately, new releases of the N1K1-Jb and N1K2-Jb have come out since. So here's a review of those kits, and the missing segment of the first article. Insert it between page 1 and page 17 of the March issue—it'll actually make sense—finally!)

While the early model N1K1s performed as well as could be expected in the Philippines, against overwhelming numbers of allied aircraft, Kawanishi wasn't done with the Shiden yet. The company redesigned much of the airframe, giving the plane a more traditional low-wing plan, a longer fuselage and an even less-elongated vertical fin. The new plane had a top

speed of 362 mph, and was considered one of the finest Japanese combat aircraft of the war.

In abandoning the old Japanese formula (agility at the cost of reduced firepower and increased flammability) for an approach more like that of the allies, the Shiden and Shidenkai were a startling development for U.S. airmen. In one battle over Matsuyama on March 19, 1945, Shidens and Shidenkais of the 343rd Air Wing under CDR Minoru Genda (one of the architects of the attack on Pearl Harbor) tangled with a strike group of American carrier planes. When the torrent of U.S. aircraft had subsided, 12 N1K1-Js and N1K2-Js had been lost—but at a cost of 45 Hellcats, Corsairs and Helldivers. Results like these raise the question of how much more costly the last months of the war would have been for the U.S. Navy and Army Air Corps had the IJN listened to Kawanishi in

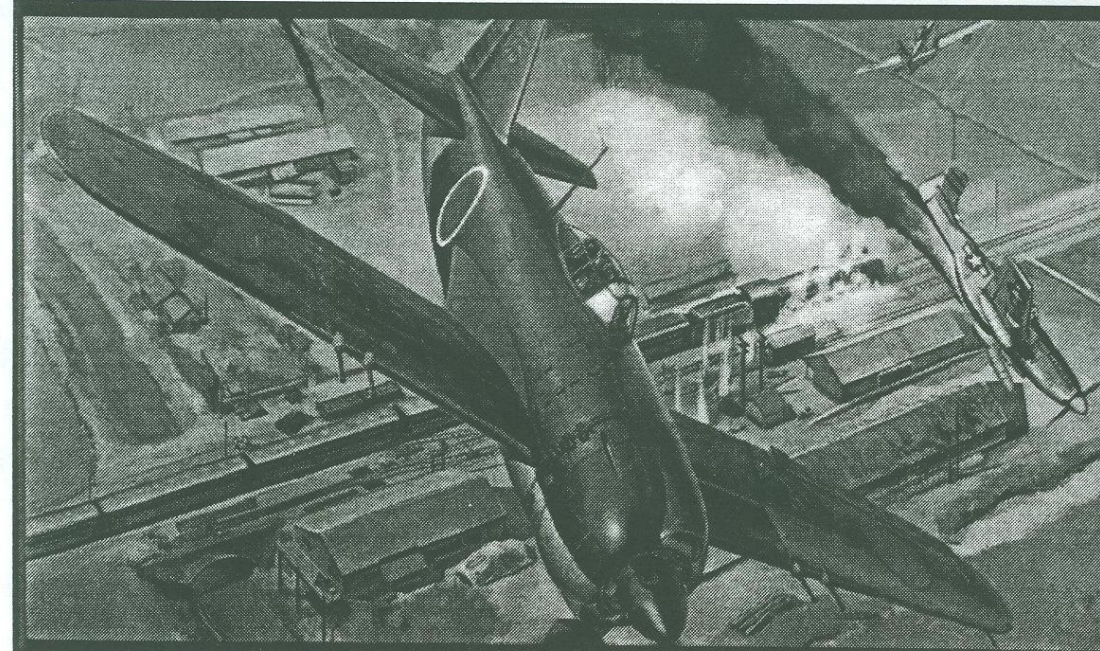


SHIDENKAI

KAWANISHI N1K2-J

紫電改(初期型)

0222 1/72 Hasegawa



工之 ★ 列伝

奇兵隊 ツ-185

川西 N1K1-Jb 紫電1型乙
筑波航空隊・戦機 103

1941.

While I'm not a big builder of Japanese World War II aircraft, the Kyofu and Shiden are among my favorite planes, because of their origins, performance—and the availability of 1:72 kits. Models of the three major members of the family are available and can be built with a minimum of problems.

Kawanishi N1K1 Kyofu ("Rex") "Early Type" in 1:72 by Hasegawa

This is the most recent of the three models we'll discuss, and it's a nice one. I've even heard some remarks that it looks like a pantographed version of Tamiya's 1:48 kit. The recessed paned detail is crisp and fine, with subtle representations of the fasteners and fabric surfaces.

The airplane itself consists of 37 pieces, with the breakdown being fairly conventional. The cockpit gets an "A" for effort, but a lower grade for execution. There's a nice Japanese-style seat, with all the lightening holes suggested, but—oops!—there's an ejector pin mark on the left side of seat pan. Just try to sand and fill that without losing detail! The instrument panel is represented by a decal, and while there are side consoles molded to the cockpit floor, there are no instruments provided. There's a convincing stick and even a clear gunsight part, and an aft bulkhead with a molded A-frame structure in it. Unfortunately, right inside the "A" is another ejector pin mark.

(While we're at it, let me ask the kit manufacturers: honestly, is it so hard to arrange parts on the molds so that the ejector pin marks are on the sides we don't see—the bottom of seats, the back of bulkheads, the insides of fuselages? I noticed that the *back* of the bulkhead and the *bottom* of the seat are just perfect—but who cares? You can have sinkholes, mold marks and ejector marks galore in those spots and no one will mind! Please think about it!)

After a Prozac break, we now look at the rest of the model. There's a part that's sandwiched between the fuselage and cowling, which gives the plane the clean front end of the early version Kyofu. The correct long spinner is also included, but both cowling and spinner are included on separate trees, indicating that a later Kyofu may soon be in stores. The engine and propeller blades look very nice and assemble in much the same way as the propeller on Hasegawa's recent Zero assembled.

Hasegawa is thoughtful enough to supply you with a form-fitting plastic ballast weight for the main float, though I might just use tried-and-true lead weight to maintain a proper attitude. The one-piece canopy is clear but thick, and would do with a vacuformed replacement to show off the interior.

A nice touch is the boarding ladder and the beaching dolly, a 9-piece assembly that allows you to display the plane in a somewhat graceful manner out of the water. This would look good with other Japanese floatplanes—Petes and Rufes, for example (who's got casting resin...).

The decals are somewhat thick (surprise!), and depict two green-over-gray Kyofus—one out of Java in June 1945 and a second that's part of the "Ots Air Group," Sept. 1944.

The price (\$18.95 at the local hobby shop) is the only major problem with this kit. Whether it's worth it to you depends on how much you like the subject—it's the only game in town. Still, it's a one-of-a-kind that won't take much work to complete into a fine replica. If you like flying things with big red

dots on them, or if you like planes you can fish from, I say go for it.

Kawanishi N1K1-Jb Shiden in 1:72 by Aoshima

I know what many of you are thinking—"Aoshima?" Yes, I know that Aoshima's reputation is not the best, and some of the re-issues that accompanied this Shiden to market fall squarely into the "yes" side of the "Does It Suck?" column. And, if the \$22 price tag makes you flinch, the MPM kit may still be your best bet. But this newly-produced kit is right up there with the state-of-the-art, featuring recessed panel lines, realistic fabric surfaces, a reasonably detailed interior, and the absence of sink marks or ejector pin marks on any visible surfaces. This is a wonderfully-designed model, as good as any Hasegawa has to offer.

The kit contains 39 parts, more than twice that of the MPM kit, and the detail is sharper all around. The pilot's seat is a bit on the wide side and could use replacement, but there's a control panel and rear bulkhead. The instruments on the panel are represented by a decal. The interior floorboard has representations of a throttle and side consoles, and the fuselage sides have former detail molded in the cockpit area, giving superdetailers a head start.

The kit is engineered logically. The fuselage is broken into halves, with the entire cowling molded as a single piece. The lower wing contains the bottom of the fuselage and four of the 18 exhaust pipes, and its placement makes it likely that four more of these pipes will be damaged in eliminating the seam between the lower wing and fuselage. More advanced modelers may want to eradicate the kit-supplied pipes and replace them with thin metal tubing.

The wheel wells have formers molded in, and the landing gear struts and wheels are sharp despite small but easily corrected ejector pin marks. The propeller, drop tank and engine are equally crisp and well-defined. There's even two canopy options—a one-piece closed canopy and a three-part open canopy.

The instructions for my kit were all in Japanese, and offer subassemblies like the drop tank, landing gear and cockpit installations in "don't forget" boxes, a nice change from those instructions that tell you point blank to do illogical things, like putting the canopy on in step one. Although there are markings for four N1K1s on the decal sheet, the instructions illustrate just one George (with call-outs for the other planes). All are in the green-over-gray navy scheme. A bit of nose art—"Tokyo Rose," with a stylized geisha in front of a microphone—was apparently applied to a captured example; the marking appears on the sheet, but the instructions offer no placement data.

With the exception of the plain-Jane markings, this N1K1 is vastly superior to its MPM counterpart. The MPM kit could serve as a source for metal detail parts, decals and underwing 20mm cannon gondolas while the Aoshima kit becomes the basis for your George project.

Kawanishi N1K2-Jb Shidenkai in 1:72 by Aoshima

Same goes for this model—beautiful, well-detailed, well engineered and a big improvement over the Hasegawa kit. Plus, it's a completely different kit than the Shiden—so Aoshima took no shortcuts, to the kit's advantage. The biggest stumbling block is the \$22 price tag, but if you like "Hellcat Killers," this one's for you.

Scratchbuilt parts add to an HH-3F conversion



A Coast Guard Pelican on the ramp at USCG Air Station Clearwater, Florida. Note the gap between the fuselage and sponson.

By Randy Rothhaar
•Part 2 in a series•

After joining the two Hasegawa *Sea King* fuselages to form the body of my HH-3F, I turned my attention to the part of the helicopter I couldn't cannibalize from another kit—the tail section.

Using my scale drawings, the tail boom was made out of sections of sheet plastic cut slightly oversize. After cutting one end and making it fit with the rear of the fuselage, the other end was cut and sanded to shape to match the drawings. The vertical tail was made out of thick plastic strip sanded to shape, then was mated to the new tail boom. The contours necessary to blend the two components were built up with gap-filling super glue, and the tail rotor from the *Sea King* kit was used as-is and was added to the tail assembly. The fairing that houses the tail rotor was cut off the *Sea King's* foldable tail boom piece and was placed on the new tail according to the drawings.

After filling some small gaps, the new tail boom assembly was attached to the main fuselage. The new tail blended with the rest of the helicopter very well, and my *Pelican* was really beginning to take shape. A tail support was made out of brass rod and tubing and was put aside for later installation.

Setting the fuselage and tail sections aside, I began work on the fuselage sponsons. Using the main wheel well pieces from the *Sea King* as a base, I made the sponsons from sheet plastic. Since the bottom of the sponsons are flat, alignment of the various scratchbuilt parts was pretty easily achieved using

the tabletop edge and a drafting triangle. Also, since the sides of the helicopter are vertical, proper location and alignment of the sponsons on the fuselage would be a piece of cake as well.

After getting the sponsons assembled in a rough form, they were sanded to final shape and cleaned up to match the scale drawings. Since the *Pelican* can land on water like the *Sea King*, I carefully cut the flotation bags off the *Sea King* sponsons and added them to the new *Pelican* sponsons. Some minor sanding on the back side of the bags helped improve their fit.

With the sponsons complete, I grabbed the fuselage and began the process of figuring out how and where I would attach them to the fuselage. After using my drawings and a ruler to mark the proper location on the fuselage, I inserted three brass rods into each sponson and drilled the corresponding holes into each fuselage side. I had to plan the location of each hole carefully so I wouldn't drill through something vital in the cabin interior.

With the sponsons temporarily in place, minor fit problems were fixed with plastic shims and super glue. There is a gap between the fuselage and sponsons—this is the way it's supposed to be! On page 109 of Robert F. Dorr's excellent book *U.S. Coast Guard Aviation*, there is a good right rear quarter photo of a *Pelican* showing the gap to good effect. While talking with an ex-H-3 crew chief, I learned that the sponsons bolt to the sides of the fuselage and you can sometimes see daylight between them and the fuselage!

I left the sponsons detachable to ease painting and they were set aside while I did some more work on the fuselage.

The cockpit parts that I finished earlier were now installed in the cockpit. The overhead panels of the cockpit glass were painted clear green and the windscreen was attached to the fuselage once the paint was dry. The windscreen was sanded and faired into the rest of the fuselage, then polished and masked with frisket film.

Then it came time to find something to use for the weather radome on the left side of the nose. I ended up using the front half of a torpedo from *Monogram's* 1:48 He 111. It was the right shape and size—and, after building my He 111Z, I had a lot of them I could use in case I goofed.

The radome was sanded to shape and glued on the nose with super glue, which also helped to fair it to the fuselage. With the *Pelican's* most distinctive feature now done, I worked on the engine area.

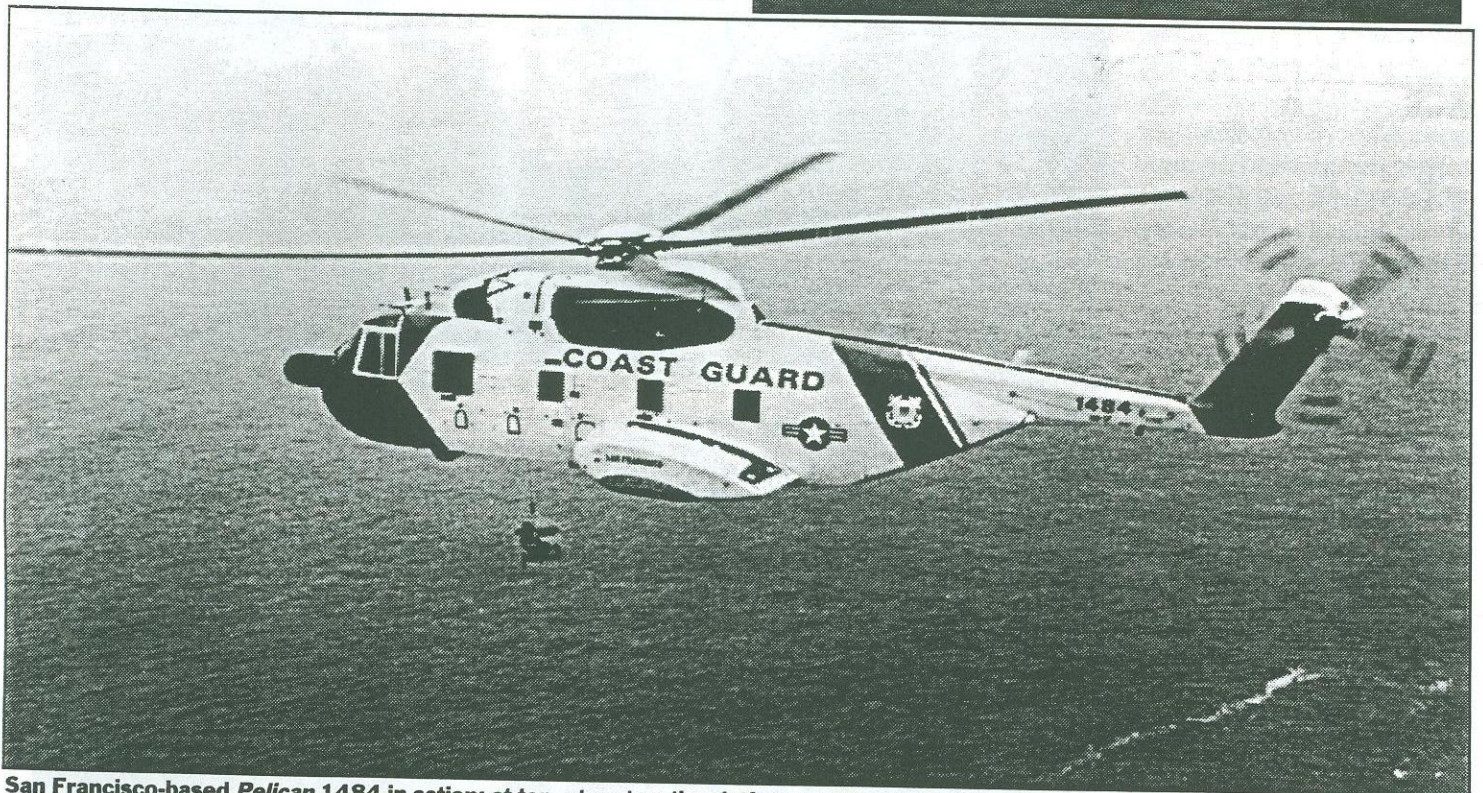
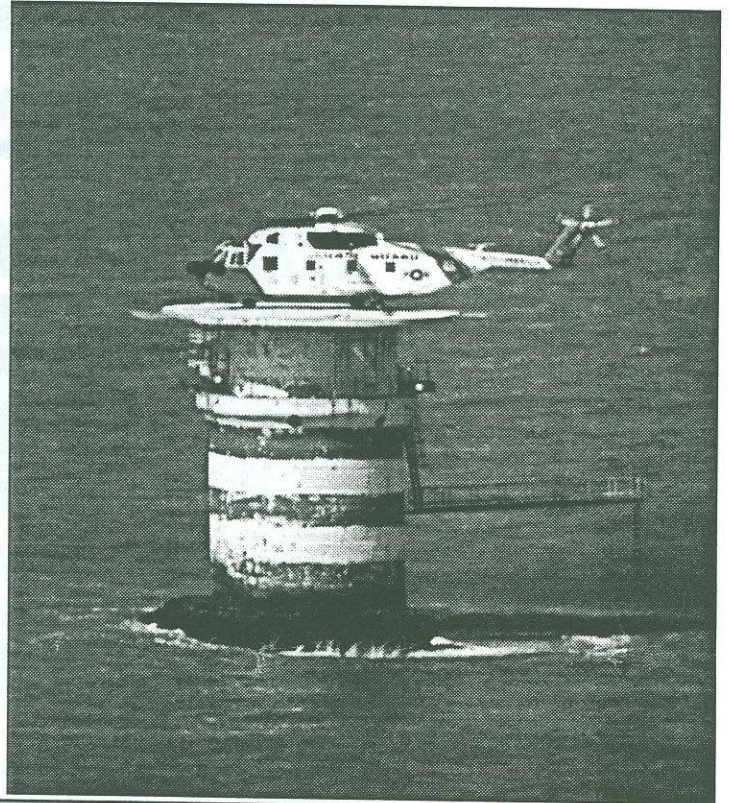
The kit's engine pieces were used as-is, with the exception of some brass screens from *Eduard's* *Sea King* detail set. The *Sea King* FOD cover needed a little modification in order to represent that of the *Pelican*, and I had to do a little sanding to get the engine intakes to fit properly.

Underneath the *Pelican*, there are various panels visible in in-flight photos, so I made them out of small pieces of sheet plastic. Some other panels and details were depicted with brass parts from a UH-60 *Blackhawk* detail set. I was planning to model a drug interdiction bird with a FLIR turret and Nitesun searchlight, so I build these next. The FLIR turret was modified from the head of a laser designator pod from a *Hasegawa* weapons set, with an *MV* lens added to depict the FLIR camera lens. The turret was mounted in a ring of plastic tubing and was attached to the fuselage bottom to the left of the nose gear well. The turret is detachable and was set aside until final assembly.

The searchlight was scratchbuilt from plastic tubing, brass rod and a big *MV* lens. Holes to mount the unit were drilled

into the forward left side of the fuselage. Some wiring was added to the light and it was set aside with the FLIR turret.

The rescue hoist located above the cabin door was used out of the box with a photoetched hook and some more wiring added for detail. I scratchbuilt the cabin door out of .030 clear plastic and some *Evergreen* channel stock. The door handle came from one of the *Sea King* doors. The door tracks were made out of small strip plastic, and the cargo ramp was constructed out of laminated sheet plastic sanded to match



San Francisco-based *Pelican* 1484 in action: at top, at rest on the platform at Mile Rocks Light, two miles west of the Golden Gate; below, a victim is recovered with the Golden Gate Bridge in the mist at the upper right.

the lower fuselage contours. The ramp is removable and is held in place by two brass rods.

Since the *Pelican* has a tricycle gear, I would need both the main gear struts from one *Sea King* plus an additional strut from the second kit for the nose wheel. After cleaning up the struts, I extended the oleo portion of one of them to make the nose gear.

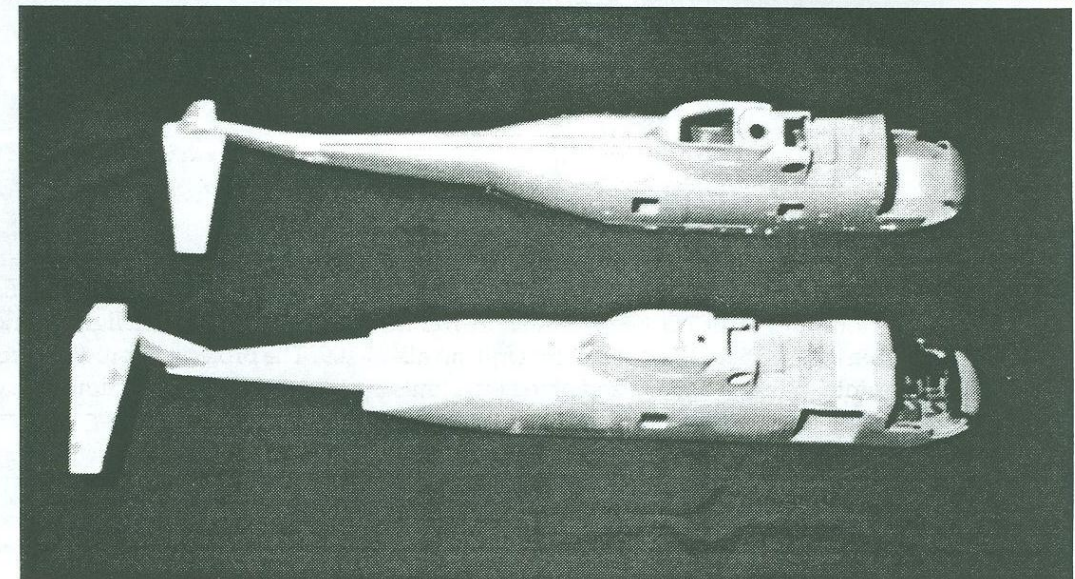
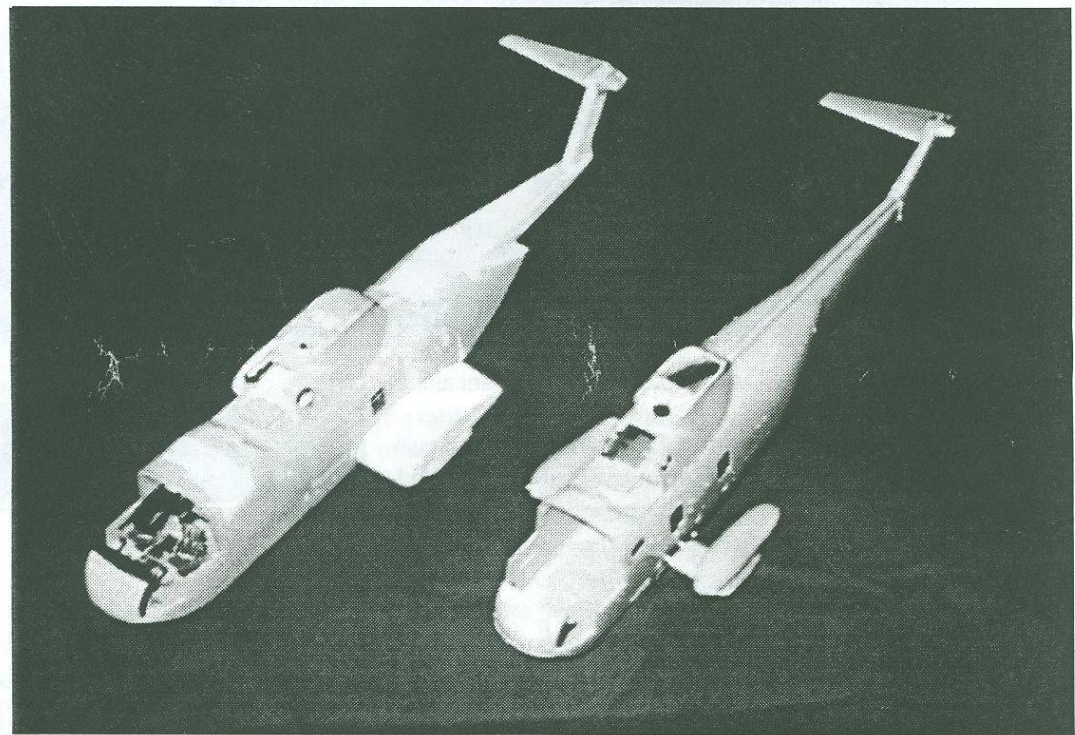
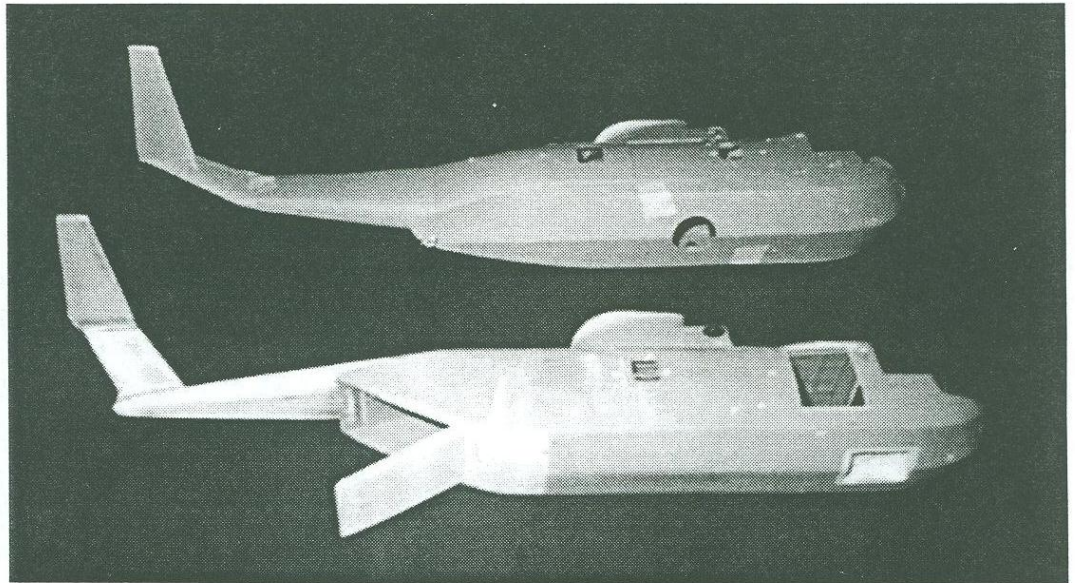
A hole had to be drilled in the main gear wells in the sponsons to allow the main gear to obtain the proper stance in relation to the new nose gear. Once the gear was aligned and the model sat at the proper position, I detailed the gear with some photoetched parts from the *Eduard* set and set the gear aside for painting later.

The kit's main rotor assembly is well-detailed but depicts the *Sea King's* folding type, so I had to modify it to represent the non-folding rotor head of the *Pelican*. The first step was to fill in the hinge lines on the parts that formed the base of the blades. This was done with thin strip plastic and super glue. Once this was complete, I used a file to reshape the blade bases to match my references. After the blades were finished, I assembled the rotor head, detailed it with fine brass wire, and glued each blade into its respective slot on the rotor head.

One cool feature of the rotor blades in the *Sea King* kit is the molded-in droop of each one. Most helicopter blades in real life have a characteristic droop, and since it's taken care of in this kit, you don't have to worry about breaking the blades while trying to put in the droop yourself.

Now that I had all the major subassemblies on my *Pelican* complete, I was ready to paint.

Three views of Randy's *Pelican*, with its new tail, and the *Hasegawa Sea King* for comparison.



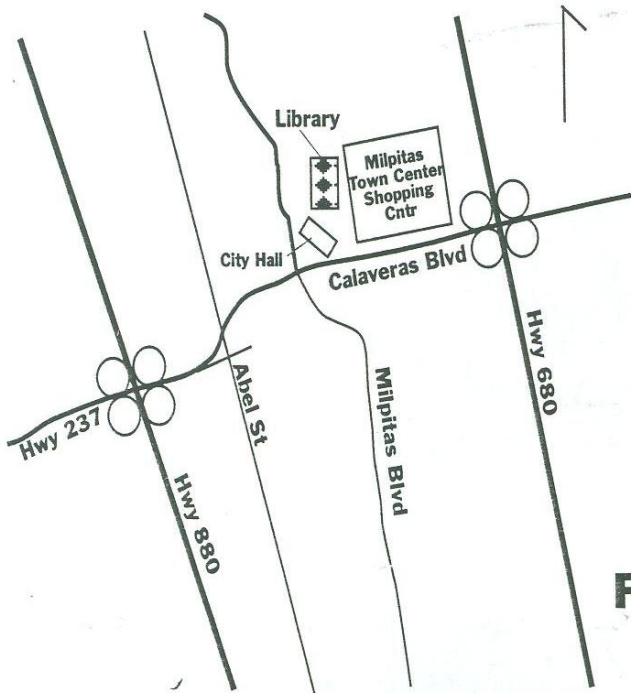
JULY MINUTES

At the July meeting, there was a pleasant absence of business, which enabled us to get right to the important task of model talk. Tom Bush Sr. customized his '53 Chevy with two Corvette grilles and a replacement rear window. Tom also tricked out a '49 Mercury. Continuing in an automotive vein, Mike Williams built a 1970 'Cuda as a test bed for a pearlescent coat of Granny Smith green; in comparison to the apple he brought in, his paint was right on! Tom Bush Jr. built a Honda NSX in the car on the way to the meeting so he could get a raffle ticket. To highlight some of the points he made in his article from last time, Bert McDowell displayed three re-decked and four un-re-decked 1:700 carriers, emphasizing his point on how important the correct markings and scribing is. Stan Muniz used the *Tom's Modelworks* kit of the Nieuport 10 to build a Russian fighter; he found *Humbrol's* natural linen paint very useful in the project. Matt Reich applied a coat of *Pro Modeler* paint to a *Monogram Pro Modeler* F-117, and was very happy with the results. Matt also proudly showed a Chevelle he had been working on for two years and a *Revell* F-16 air defense fighter in 1:48. Frank Babitt found that the fit of the nose presented problems in *Monogram's* 1:48 B-26 *Marauder*, but he stuck with it and added scribed panel lines to boot. Frank has also completed a *Heller Hurricane* Mk II as a night fighter (an entry for next month's Henry Ford contest, perhaps?) and he's nearly finished his J7W1 Shinden fighter by *Hasegawa*. Frank needs only to vacuform a new canopy to complete this beautifully-weathered bird. Peter Wong gave a meteorological upgrade to his Chieftain by adding a wind detector he pirated from an M60. Peter used *Pactra* and *Tamiya* paints to finish off the British battle tank. Rodney Williams has been having trouble with dry transfers leaving residue on his 1:32 P-51D, buying an expensive chemical at the transfer manufacturer's suggestion that ruined the transfers and the paint. Another member suggested the use of spit to take the gum off the model, a cheaper and safer alternative. Bill Shipway used "Mountains in Minutes" model railroad scenery material to add "body" to the inside of his *Horizon* apatosaurus. Randy Rothhaar's HH-3F *Pelican* (described in the article in this issue) is in paint and on wheels, with just a few final touches needed to finish this ambitious conversion. Hubert Chan has again gone in the tank... and detailed it! He's taking on the *Tamiya* Panzer IV now, and has already eliminated those pesky motorization holes. Brian Finch has scratchbuilt the suspension on an *Italeri* WC51 "Beep" he's building as a long-frame model on Vietnam convoy escort, with armor plating and armament still to come. Brian's neatest detail so far is the winch cable, which he made himself by braiding fine wire. Jim Lewis has also been working on a Beep, which he said was the most difficult model he's ever built. Jim added a wooden floor and built his Beep as a short-frame model used in Korea by the 358th Field Artillery Unit, an all-black unit that was integrated before the end of the war. Jim's

also working on a GPA amphibious jeep, or "Seep," from the *Tamiya* kit, and its accompanying trailer. Rich Pedro's *Minicraft* P-38 will wear the colors of "Itsy Bitsy" eventually; Rich is toiling on that model and a *Monogram* NASCAR super truck, which he wants to show completely open. Brian Sakai took a *Bandai* figure kit of Sailor Moon that was little more than a toy and chopped, sanded and refined it into a real figure; he even replaced the rhinestones in the kit with railroad marker lights! Brian also has finished up a resin figure from the "Lotus War" series and a figure of Skull from the "Oh My Goddess" series, on which he applied gloss white over flat white to effectively replicate the color and texture of silk. Laramie Wright took the *Airfix* Brewster *Buffalo* and sanded and rescribed it and finished it with a coat of *Gunze Sangyo* paint for a first-class Model 239. Laramie, who recently tackled a *Minicraft* F4F-3, is now working on the *Hasegawa Wildcat*, which he says is much easier to work with. Cliff Kranz had some light armor on hand in the form of a M-24, built from the *Glencoe* copy of the old ITC kit. Mark Hernandez' hypothetical Luftwaffe was out in force; he had, in various stages of construction, a *Special Hobbies* Focke-Wulf Blitzer, a *Puma* Focke-Wulf Triebfluegel kit with photo-etched parts, an *Atlantic Models* Messerschmitt P.1110.2, a P.1110.1, a He 279A nightfighter and a *Huma* Ju 287 (whew!). Al Gonzalez displayed his U.N. Warrior (see story, page 1). Al's other gem at the meeting was a BMP from *DML*, which sported an interior from *AEF Designs*. Al said the kit takes "a pound and a half of filler" to look right! Mark Forester enlisted *Testors'* Gray alien in star fleet, dressing him in the 1960s red engineering uniform. Mark also did a nice job on *AMT's* Ford GT90 snap-together kit, which he says he built in a half hour. Chris Bucholtz' *Matchbox* F9F-5 *Panther* is decaled, painted and awaiting final construction; Chris used *Cooper Details* Luftwaffe radio set (huh?) for some of the "black boxes" behind the seat. Ken Miller is dabbling in dinky aircraft; his *Aeroclub* 1:144 *Albatross* looks very visible in its Coast Guard colors, and his *Revell* KC-10 in the Shamu scheme looks ready to pass gas (that's a compliment!). Speaking of small, Bill Abbott took his 1:144 B-29 *Superfortress* and dressed it in "over the Hump" colors of olive drab and gray. Dave Balderrama is in the preliminary work on a *PM Models* DFS 194 glider. Ben Pada, similarly, is in the early going on a *Tamiya* *Mustang*, which he's building to wear *Aeromaster* markings. Evan Carlsen is working on something big; the tail sections he brought in are as big as most 1:72 planes' wings! Larry Roberts veered from his single-engine path to build a *Monogram* *Mosquito* in unusual Southeast Asia markings. And the model of the month goes to... Richard Draga, whose undersea Pirate ship incorporates a Star Wars X-Wing fighter, a Sea Quest transporter, F-15 *Eagle* wings, parts from GI Joes and Lego sets, and a lighted and detailed cockpit from an Me 109! The project took four months to build and just minutes to stake a claim to this month's award.

Next Time in the STYRENE SHEET: Building the M46 Patton • Review:

Pavla's Q1W1 Lorna ASW plane • Converting an HH-3F, Part 3 and more!

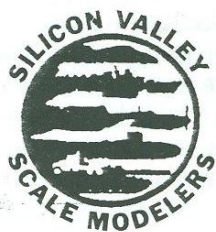


Next meeting:
7:30 p.m.,
Friday,
August 16
 at the Milpitas
Public Library,
40 N. Milpitas Blvd.

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