

Biggest X-plane: Combat's Dornier Do-X in 1:72

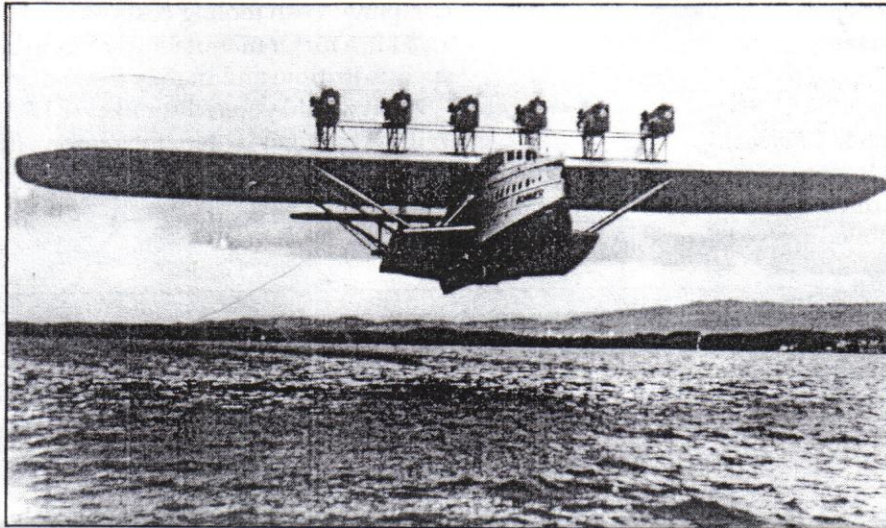
By Jim Lund

Let's get something straight right now: in the designation of the Dornier Do-X, the X stood not for the Roman numeral for 10, but referred instead, as in technical and mathematical parlance to "X" as the unknown factor. By its size alone, the Do-X could indeed be viewed as a step into the unknown.

The Do-X was by far the biggest heavier-than-air machine to power its way into the sky when it first flew in 1929. "Power" is the proper verb; the 12 525-horsepower Bristol Jupiter engines mounted in tandem pairs needed to be powerful to move this huge machine; the engines' very arrangement produced extra drag. Also, the six engines on the back side of the coupled twin engines suffered from overheating because not enough airflow reached the air-cooled Jupiters. Even with a dozen engines and 6300 horsepower, the Do-X was underpowered, and different powerplants and mountings never overcame the problem.

She had some interesting vital statistics: 131 feet, 4 1/4 inches long; a wing span of 157 feet, 5 1/4 inches; a hull over 11 feet in width. The design incorporated *stummeln* (sponsons), a Dornier trademark. The fuselage was constructed of flat plate and open

angles of anodized lightweight metal strengthened with additional steel plate at load-bearing frame stations. It was divided internally into three decks, the Do-X being the first aircraft to feature this.



Two shots of the Do-X: at top, lifting off from Lake Constance; at bottom, at rest in Jim Lund's model display room!

On Oct. 21, 1929, the Do-X captured world headlines with a flight around Lake Constance on the borders of Germany, Austria and Switzerland carrying 169 people—the 10-man crew, the 150 official passengers selected for the record attempt, and nine stowaways—at a loaded weight of 52 tons. With this load, the Do-X managed to reach an altitude of 1,200 feet, and when it leveled out it accelerated to 105 mph! The Do-X's record as the largest heavier-than-air aircraft lasted for more than two decades.

In February 1930, the decision was made to replace the air-cooled Jupiters with liquid-cooled Curtiss Conqueror engines with 615 horsepower. The increased power meant larger propellers should be used. Since the same motor mounts were used, the engines were staggered every second pair to reduce propeller tip interaction, but this was a half-measure. The engine change increased the Do-X's weight by 2400 pounds and brought only a marginal improvement in performance.

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

EDITOR'S BRIEF

IPMS/USA recently conducted a survey on its website (www.ipmsusa.org) and asked for members to list the two kits they would most like to see in 1:48 and 1:32. The results reveal more about modelers today than perhaps we'd like to face. 1:32 is such an unexplored territory that any response is a reasonable one. But here are the winners in the 1:48 poll; the number of votes is in parenthesis.

1. (55) North American A-5A/RA-5B *Vigilante* series
2. (30) McDonnell F2H *Banshee*
3. (28) Curtiss P-40 series
4. (26) English Electric/Martin *Canberra* series
5. (24) Boeing B-17D/E/F/G
6. (21) Northrop T-38/F-5 series
7. (15) Grumman E-2 *Hawkeye*
8. (12) MiG-25 "Foxbat"
8. (12) Vickers *Wellington*
10. (11) Boeing-Vertol CH-47 *Chinook*
10. (11) Grumman A-6 *Intruder* series

Some of the choices are quite good. Some of the choices, however, point out how spoiled we've become. A Curtiss P-

40? Well, sure... If you're talking about a P-40B or C. Otherwise, there are very recent models—the *Mauve/Eduard* kit and the *AMT/AMTech* kits—that should fit the bill. The B-17? I seem to recall a pretty good *Monogram* kit, but apparently raised panel lines have rendered this model totally unbuildable. And the A-6? Again, there is a *Monogram* kit that's just been re-released. Is it that bad? And if it is, would someone tell the thousands of people who have bought it recently?

The reality we have to face is that we "high end" modelers do not drive the market. It's the sales to casual builders—kids, dabblers, nostalgic veterans—that make or break a kit or a kit company. With tooling costs over a half-million dollars for a 1:48 kit, a major manufacturer has to be very careful in how it spends its time and money these days.

What would your editor like? A 1:72 kit of the U.S.S. *Macon*! Will he ever get it? No, for reasons that have nothing to do with how cool the subject may or may not be. In the meantime, we can all dream.

—The Editor

CONTEST CALENDAR

May 30 and 31, 2003: **IPMS/Las Vegas** hosts its **annual contest** at the Imperial Palace Hotel and Casino, 3535 Las Vegas Blvd. South, Las Vegas, Nevada. For more information, call Jim Mitchell at (702) 254-6386.

May 31: 2003 **IPMS/Washington Alexander Pearson Modeleers** host their **Invitational Model Show and Contest** at the Jack Murdock Aviation Center at the Pearson Air Museum, 1115 E 5th, Vancouver, Washington. This year's theme: The 100th Anniversary of Flight: the First 20 Years (1903-1923). For more information, call Pascal Valadier at (503) 282-9371 or visit the website at www.angelfire.com/wa3/ipmspearsonmodeleers/2003%20invitational%20page.htm.

June 21, 2003: **IPMS/Ontario** will host its **annual model contest** at the Ontario Senior Center, 225 E. B St. Ontario, Calif. For more information, contact Al Parra at (909) 920-9917 or e-mail him at parrateach@aol.com

August 10: **IPMS/Central Valley Scale Modelers** host their **15th Annual Scale Model Show and Contest** at the Holland Elementary School in Fresno, California. This year's theme is "WWII European Theatre of Operations, 1939-1945." For more information, call Nick Bruno at (559) 229-3675 or Jim Cavin at (559) 584-5796.

August 16, 2003: **IPMS/Mt Diablo** hosts its **Plastic Model Contest** at the Vallejo Naval & Historical Museum, 734 Marin St. in Vallejo. For more information, e-mail John Clements at sjshark2@ix.netcom.com.

Oct. 11, 2002: **IPMS/Redding Dambusters** host their **Plastic Model Contest** in Redding, California. The contest theme is "The Best of NASA." For more information, e-mail Richard Carlson at blwah25@c-zone.net

Nov. 15: **IPMS/Silver Wings** hosts their **annual contest** in Sacramento, Calif. More details to follow. For more information, e-mail Scott Bell at SnJmodprods@aol.com.

Feb. 22, 2004: **Silicon Valley Scale Modelers** host the eleventh annual **Kickoff Classic** at Napredak Hall, 770 Montague Expressway, San Jose. The theme is "Stars and Stripes." For more information, call Chris Bucholtz at (408) 723-3995.

April 24, 2004: **IPMS/Fresno Scale Modelers** host the **Region 9 Convention and Contest**, to be held at the Fresno Air National Guard station or, in the event of national defense conflicts, at an alternate site. More details to be announced.

Hobbycraft shows improvement in its pioneer P-59

By Bradley D. Chun

On one of my first road trips with the SVSM faithful, I remember seeing the P-59 mounted on a pedestal down at Edwards Air Force Base. I thought to myself, "Now there's a model I'd like to build in 1:48." Yeah, right, me and probably three other people. When *Hobbycraft* announced the kit a few years back, I prayed everyday for its release... well not perhaps not everyday. So imagine to my surprise when I walked into Hobbies Unlimited recently, and there it was. Now I guess I have to play the lottery!

Inside the box, the *Airacomet* modeler will find an instruction sheet, a decal sheet and six separately bagged sprues containing 53 light-gray injection molded parts, seven clear injection molded parts, and three rubber tires.

The instruction sheet is what is typically found in a *Hobbycraft* kit. It is a single-sheet

fold out that contains no history of the model but has the kit features, color chart for three different paint manufacturers, universal assembly codes, and 11-step assembly process. The colors and markings are found on the back of the model box. The assembly instructions are pretty clear-cut for anyone who has built an aircraft model before. Detail and decal callouts are included in the various steps and assembly appears to be quick (well, at least for those who haven't been previously been infected with AMS).

The decal sheet contains markings for three versions. The first version is for "Smokey Stover," BuNo 4222614, a natural metal P-59A, assigned to the U.S. Army, Alaska, 1944. The second is for BuNo 63960, a gloss blue with yellow winged YP-59A, assigned to NATC Patuxent River, U.S. Navy, 1947. The third is for number "88," BuNo 422614, a natural metal P-59A, assigned to the U.S. Army, California, 1948. The decals appear to be nicely printed within the decal film (of which appears to be minimal); the "Smokey Stover" decal and the stars and bars are in registration, but the instrument panel decal is not. This may be a blessing in disguise, as I doubt there will be a lot of aftermarket decals for this kit (or its sister kit of the YP-59, for that matter). The full-color colors and marking section is located on the back of the box and also includes the cover of the Steve Ginter book on the P-59 (a nice marketing idea).

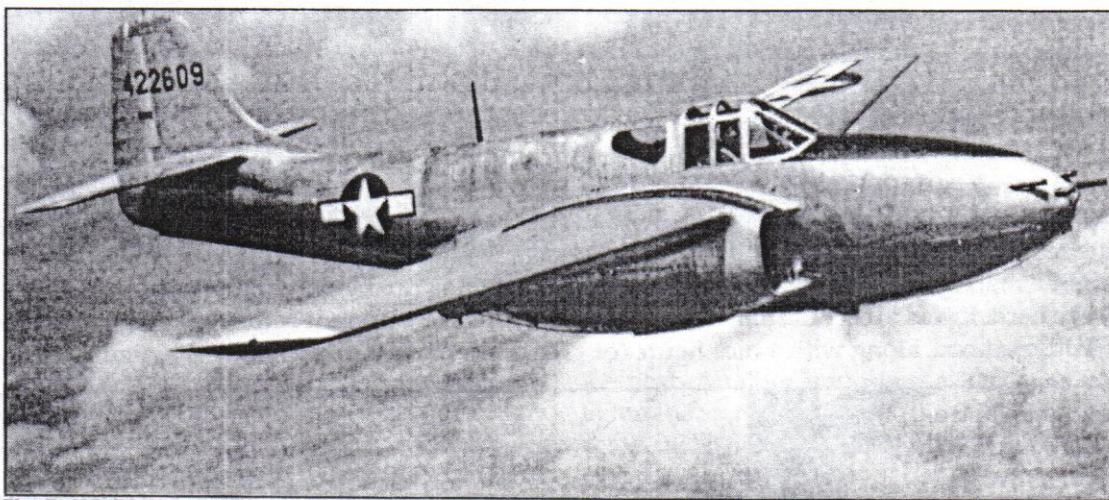
I have to give kudos to *Hobbycraft* for separately bagging each sprue. The forward fuselage halves, "hot" section, and

forward portion of the horizontal stabilizers are on one sprue. These parts appear to be tooled by the same people who mold for *DML/Dragon*, as the texture of the parts appear similar. A nice engineering touch is having the upper wing fillet molded to the fuselage halves.

Panel line detail is of the preferred scribed, recessed variety. I just hope the panel lines match, unlike the *DML* 1:48 Ju-88 series.

The upper wing halves and lower wing section are on one sprue together and there is minimal detail in the wheel well consisting of rib and stringer detail. The specific P-59A tail section, wing tips, movable section of the horizontal stabs and

machine gun barrels are together on another sprue, since the tail is of a different shape from the YP-59 (*Hobbycraft* kit no HC1438). The flaps, ailerons, front and main wheel hubs, and under-tail strake are on the next



The Bell P-59 *Airacomet* was too stable to be a useful fighter, but served its purpose by moving the U.S. into the jet age.

separately bagged sprue, and the last injection sprue contains all of the detail parts, such as cockpit parts, front wheel well, landing gear legs, landing gear doors, exhaust pipes, and others.

Last but not least, the separately bagged clear parts also contain the "rubber" front and main tires. There are some minor scratches on the clear parts that are from the molds not being completely polished out. A dip in Future should remedy that situation. The frames are nicely raised, and should mask easily. I hope these "rubber" tires don't eat plastic like the ones in the *AMT* 1:48 *F7F Tigercat* kits.

We all know *Hobbycraft's* reputation for their earlier releases, and the fiasco with the late version *Skyhawks*, but this kit appears to be a really nice build. I hear Dan Bunton is almost finished with his. There are two aftermarket cockpits and two wheel sets now available for this kit. If you don't suffer from AMS, I'd say build it out of the box, but there are some details missing from the deck behind the cockpit that one aftermarket company has included. I'm not a big fan of the "rubber" tires, and may have to replace those with resin ones also.

I'm glad there is finally 1:48 kit of the *Airacomet*, the first jet produced by the U.S. After seeing the pedestal-mounted P-59, I've always wanted to build one. Who knows, maybe I'll have this built in time for next year's Lancaster show? I know it's not one of the most sought after subjects, but I'm glad it's here. Now, where are those 1:48 *Cougars*?

Civil War shootout: 'Behind the Split-Rail Fence'

By Joe Fleming

After six months of work, I finished my diorama "Behind the Split Rail Fence" two nights before last year's Kickoff Classic. At the show I received some nice compliments regarding it, and would like to thank those people. Taking the compliments and questions regarding my vignette into consideration, along with my past promises to our editor for articles, I thought I would write up a brief article regarding this project.

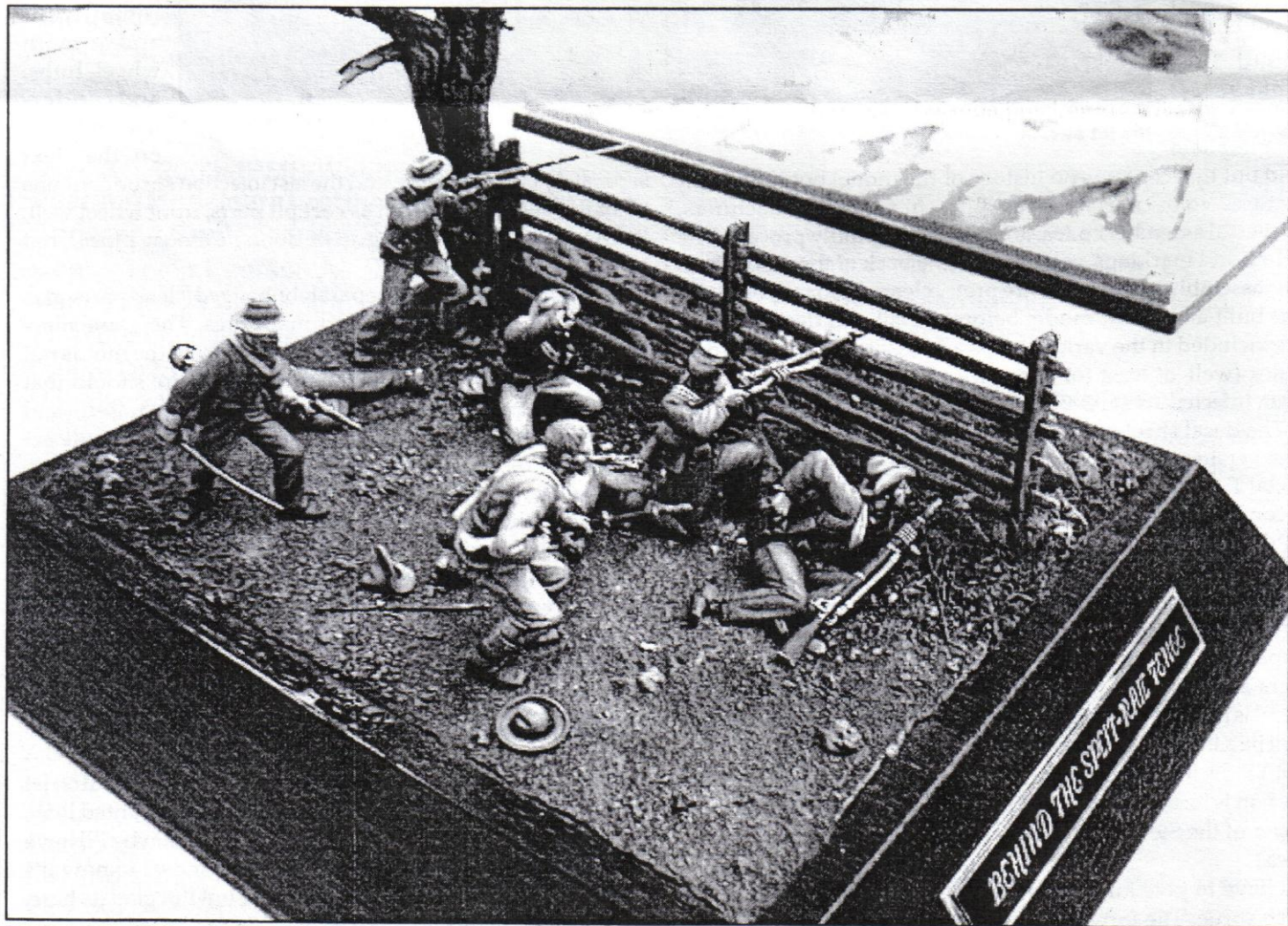
A little over two and a half years ago, I was starting to discover how much I enjoyed painting figures. A friend from the Minnesota Military Figure Society gave me a catalog from *Red Lancers*. This store is dedicated almost exclusively to the figure builder and painter. It had several thousand figure kits in it. I began going through it, marking down those figures or vignettes that caught my eye. *Shenandoah Miniatures* is a firm out of Australia. They are dedicated to the producing of white metal 54mm figures of the American Civil War. Their figures are produced so that many of the body parts, heads and accoutrements are interchangeable. With a few swapped parts a Confederate rebel becomes a Union yank. They have some nice figures, but the vignette "Behind the Split-Rail Fence" caught my eye hard. It was \$100, but some things you just have to have. I ordered one, along with a nice figure (or

three) from most of the better figure manufacturers out there. This did set me back more than what I expect most men pay for an engagement ring for their beloved. However, I simply move the decimal point around when informing the wife on how much I spent. If she catches my misrepresentation of the cost, I just blame it on my dyslexia.

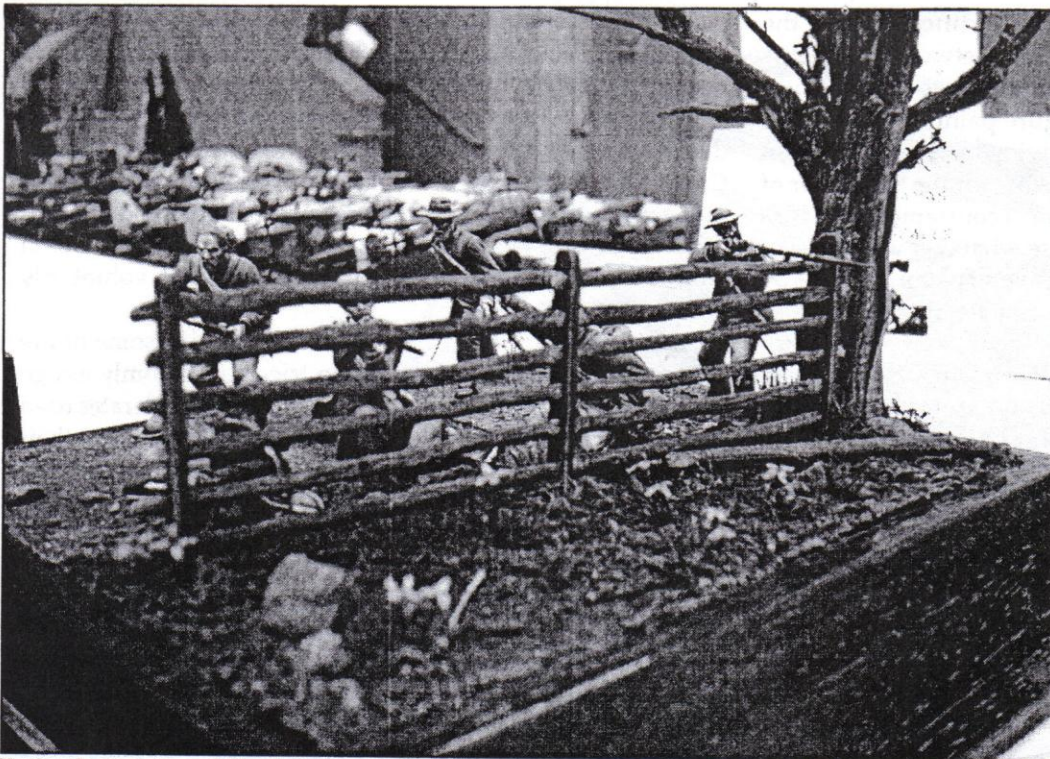
The set comes with seven 54mm white metal Confederate infantrymen. It also includes the split-rail fence in white metal. The castings are acceptable for white metal with no real pitting and very thin and minor mold seams. All the figures were complete with all their equipment except the officer. He didn't have a scabbard for his sword, and the photographs of the kit don't show him with, one either. This is an error of course; as officers, if they carried a sword, wore a scabbard for it.

The packaging left something to be desired. All pieces were bagged together, so rifles and bayonets were bent slightly from banging around with the body parts of the figure they were bagged with. Fortunately, it is not difficult to straighten them. I also ordered an eighth figure because I wanted to change the overall composition of the vignette.

Cleaning up the eight figures to ensure no seams or imperfections were present before painting required several hours of meticulous sanding for each figure, his weapons and



Confederate soldiers try to hold off a Union assault in Joe Fleming's diorama. Note the figure at right reaching for a fresh minie ball.



Yankee's-eye view of the Rebel stronghold. Joe drilled holes in the fence to represent impacts from Union .58-caliber rifle fire.

equipment. I used 400 grit wet/dry sandpaper and fine steel wool to accomplish this. It was tedious work, but not any more than I find of the typical resin figure. After all the parts were cleaned up, I drilled holes in any parts that would have contact with the ground and epoxied brass rod in the holes.

The next step was to make the base. I bought some blocks of exotic wood at Southern Lumber at Alma and 1st street in San Jose, and I cut the base to the size and shape I wanted it. After sanding and finishing it with laquer, I took the figures and planned where each would go. I marked the spot where the brass rod from each figure would go and drilled holes in the base. I filled these holes with lengths of brass rod, making sure that the rod stuck about 1" out of the holes. The purpose in this is to mark where the holes are and to keep them from being plugged by the groundwork, which was soon to follow.

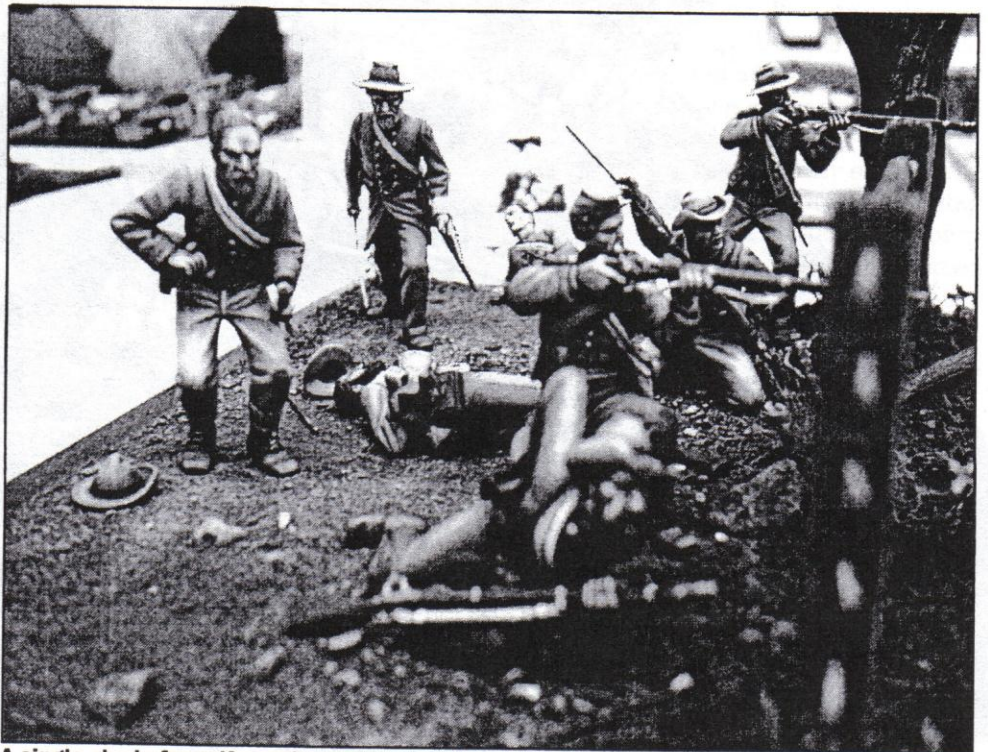
I planned out where the split-rail fence and a tree were going to go. I epoxied a base for each post of the fence to the base, and I mounted the tree in a similar fashion. I then mixed the groundwork and applied it to the base. While it was still wet, I removed the brass rods from the base and lightly set the figures in their respective locations. This ensures that they will set flush on the ground after it dries. I also set the tree, fence, and larger rocks into the groundwork at this time.

After the groundwork dried, I mounted the figures on a painting

block. This allowed me to paint each figure without touching any part of it. After all the figures had been mounted, I sprayed them with automobile primer. I also mounted the heads for each figure on smaller diameter brass rod and stuck these into a piece of styrofoam while they dried. These were also sprayed with primer followed by an additional coat of a flesh colored enamel. I always airbrush the flesh base colors to avoid any possible brush strokes. I allowed the paint to cure for several weeks.

The first thing I paint on my figures are the flesh tones. One of the most important things to remember when painting a number of figures going into one work is that all the tonal qualities and degrees of highlights and shadows need to be consistent from one figure to

the next. Another important aspect is to put enough highlights and shadows to make the figures expression and "character" jump out at the viewer. If all the figures look the same in this sense, the work will suffer. While this initially sounds like I'm contradicting myself, the concepts are exclusive of each other. Light falling on each subject should create the same intensity of shadow and highlight on each figure that is in a similarly-lit environment. However, a character's face that is more animated, aged or even more important to a work



A single shade for uniforms looks unrealistic. Instead, Joe used several shades to depict worn and weathered clothes.

as a focal point, can be accented to appear different using the paints colors and degrees of contrasts between highlights and shadows and the rapidity of change between them. I use oil paints almost exclusively for figure painting because oil paints are far more workable, forgiving, and versatile than other mediums. The exceptions are that for the base color of the clothing I use acrylics. For small accoutrements such as weapons, buttons, buckles, etc. I use whatever works.

In researching this piece, I found several pictorial books by William C. Davis. The books are listed at the end of the article. These books had color photographs of actual surviving weapons, clothing, leather gear, tools, and implements of the war. This aided me greatly in color and pattern selection. The text was also very helpful. Another very good source for the Civil War buff is photographs of re-enactors. An excellent book I found is by Dr. David Schiller. This book is from Windrow and Greene of London, as part of their Europa Militaria collection. This series covers all kinds of military uniforms from many different eras. The color photographs are a boon for figure painters. This book is a collection of photographs from numerous re-enactments. Re-enactors have become very knowledgeable and authentic in their hobby, and many of the uniforms and equipment found at a modern day re-enactments are nearly indistinguishable from actual period

pieces of uniforms, equipment, and weaponry. In addition, the research and text indicates some interesting historical notes.

A large amount of the Confederates clothing was commandeered from the battlefield. This resulted in a large portion of Confederates wearing Union blue pants and jackets. It actually got to be such a problem in regards to battlefield identification that orders came down to several units that Union jackets would be confiscated if they were not voluntarily eliminated.

I decided to add this historical note, and give some of my figures Union blue trousers. I also tried to randomly assign butternut articles of clothing to the figures. Confederates used this color extensively throughout the war to supplement their meager supply of gray clothing. I tried to give different shades of each color to each piece of clothing to give variance, indicating a newer piece of clothing versus one that had been on campaign for a while. I added patches in various places, such as the elbows, knees and seat of the pants. I used cigarette (or other types of vegetabal matter) rolling paper. I cut and glued these onto the appropriate locations. This was also a very common practice for both sides during the war. This also allowed me to add additional colors and designs to the figures' somewhat drab appearances.



An overall view of the diorama and its attractive presentation. This photo, like the rest in this article, was taken by Mike Burton.



Be judicious when depicting dead and wounded soldiers. A little goes a long way; the positions of these figures tells more about their fates than any amount of painted-on gore would.

The two bedrolls again allowed me to play around with possibilities. One bedroll I made very drab, while on the other I added some intricate repetitive designs to enhance the interest of the subject. Most bedrolls used by the troops came from home. In them, the soldiers rolled their personal items.

The weapons were fairly standardized for both sides, with the .58 caliber Enfield being the weapon of issue for most Confederate infantrymen. These weapons were steel, left "in the white." They were equipped with either an off-white linen or leather sling. Canteens were either tin or wood. The tin canteens came in several shapes, but most were covered in cloth. Soldiers would wet the cloth cover, and this would cool the water in the canteen a little. The cover colors varied, but most typically were blue, or a shade of butternut or gray. This lack of historical standardization again allowed me to add some variety and color to my figures. Two of my figures have canteens marked "US," obviously some more captured Union equipment. The haversacks each figure has were normally an off-white linen. These quickly became stained however, as the soldiers stored all their salted pork, hardtack, tobacco, sugar and coffee in them.

The leather belts, cap and cartridge boxes of the Union were almost exclusively blackened for uniformity. In the Confederacy it was very normal to have blackened leather articles, if you were an officer. The enlisted were sometimes given the black leather gear or an untreated natural brown leather colored piece. The same applied for the "CS" buckles, box and belt plates. Standardization was again, not the order of the day. All of this went into account when painting my figures,

and made it a less repetitive undertaking.

I created some small irregular cylinders that I strewed about the ground. These represented "paper ladies," pieces of heavy paper that had the lead ball or "minie" wrapped up into the paper with the pre-measured powder charge. These were then usually dipped in wax to help waterproof them. These cartridges were kept in the large cartridge boxes slung over the soldier's shoulder. In battle, the soldier would remove the paper lady from the box. He would bite off one end of the cartridge and pour the powder charge down the barrel. Then the bullet would be removed and inserted in the barrel. The ramrod would be used to force the bullet down the barrel and seat the bullet onto the charge, and the torn

paper lady would be discarded. A soldier on a Civil War battlefield would be surrounded by the discarded paper ladies.

I drilled some holes through some of the rails in the fence to represent the ferocity of Union volleys upon my figures' position. The .58 caliber rounds were capable of penetrating six inches of solid pine at 600 yards. The impact of these rounds is also seen in the wounded and dead figures in the vignette. Bloodshed is easily overdone. It is important to show a realistic amount and patterning of blood in a wounded or dead figure without getting carried away.

I added vegetation, flowers and leaves on the ground to add some color and variety. The entire vignette took approximately 300 hours of work, with the vast majority of that time

being involved in the painting of the figures. The lack of sharp detail in *Shenandoah's* line forced me to practice my skills in painting in order to create the visual scale distinctions of shadows and highlights.

If you enjoy the American Civil War period, and paint figures,

I highly recommend *Shenandoah's* line of figures. They have a large selection of standard Confederate and Union soldiers and officers, and also have numerous Zouave, cavalry, and black Union troops. They are also very reasonably priced. The diorama possibilities are enormous. I think their Zouave soldiers are the nicest pieces.

I enjoyed this project and hope to have time down the road to create another diorama of about 30 figures. If you are interested in painting figures and have questions, ask me. Happy painting!

The Fighting Men Of The Civil War, by William C. Davis Thunder Bay Press 1989

The American Civil War, by Dr David Th. Schiller Windrow and Greene Europa Militaria series 1994

The Army Of Northern Virginia, by Phillip Katcher Osprey Military Men at Arms series 1975

Nailing the details on an *Italeri* M4A2 Sherman

By Laramie Wright

This will be the third and final installment on the saga of building *Italeri*'s kit. In parts 1 and 2, I reviewed the kit and described building the hull and running gear, along with the techniques used to produce sandbag and oak plank armor.

The shape of the kit turret is accurate enough, and it goes together well. The turret needs an additional bit of armor thickness on the right side in front of the gunner's station.

Previous turrets had 1.5-inch thick appliques welded over a thin spot. That was corrected by changing the design and casting the turret wall thicker. That change was simulated with putty and sheet styrene.

Next up was the main gun. *Italeri* molded the barrel with a huge flare at the muzzle, resembling a 40mm Bofors gun. After the barrel halves were superglued and had dried I reshaped the barrel to a continuous taper consistent with late manufacture

75mm-gun barrel. The mantlet required tweaking as the lower edge was about 1/8 inch too low, preventing the barrel from being rotating to level or depressed attitudes. I checked the *Italeri* part against a *Tamiya* mantlet and made the adjustments. When done the barrel elevated and depressed properly.

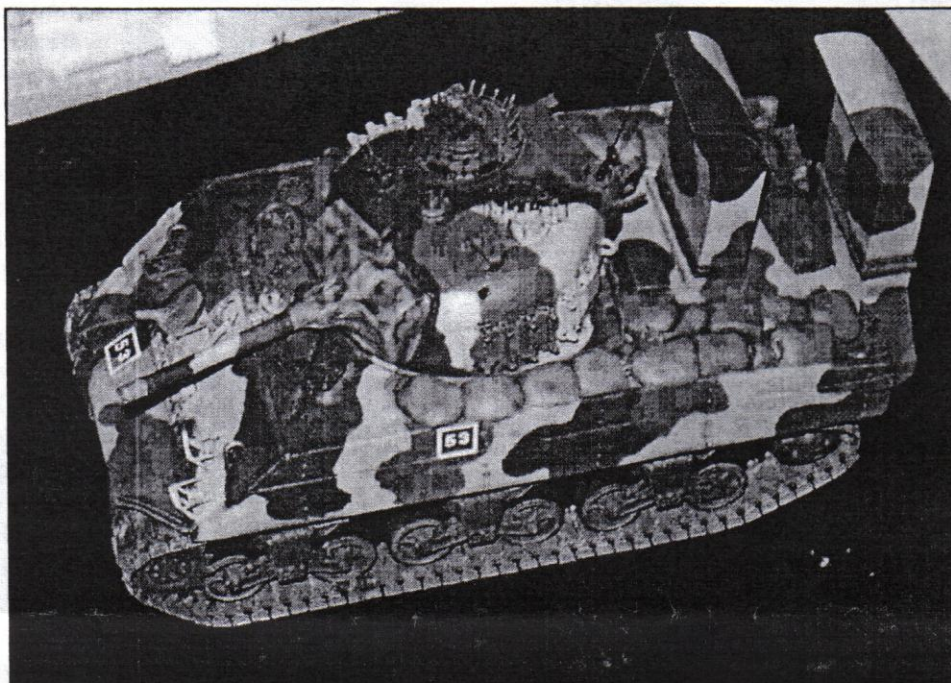
As I noted in the review, the loader's hatch is quite undersized. I filled the existing hatch opening with sheet plastic and superglue. I used a hatch from a *Tamiya* Sherman Jumbo for a pattern. After careful study of scale drawings I used it to trace the new larger opening on the roof. The new opening was created by drilling a series of closely-spaced holes around the inner perimeter, then using a new X-Acto blade cutting between the holes. I then used files and sanding sticks to finish the opening, checking frequently to match the shape of the hatch. I added an inner lip to support the new hatch constructed from sheet styrene laminated to the correct thickness. I added inner details and a hinge by transferring the hinge shaved from the *Italeri* hatch. Other details were added to the hatch such as coil springs made from wire and a photoetched handle.

Two short runs of spare track were assembled from *DML* links for attachment on either side of the turret as supplemental armor (seven on the right and six on the left) and fitted while still flexible. I added texture to most of the turret surfaces using *Mr. Surfacer* 500 in order to replicate its rough

cast look.

The commander's hatch was modified to permit opening and closing by drilling through the hinges and sliding a new torsion bar into position. The periscope slot was opened up and a *Verlinden* periscope was inserted. I built an armored housing from sheet styrene and installed that over the periscope.

Next up was the loader's periscope cover. A circular armored housing was made from strip styrene that was wrapped around a brass tube and dipped in boiling water for a few seconds. It was then plunged into a cup of ice water to set. After cooling I trimmed it to size and roofed it with a piece of .020 styrene secured with cyanoacrylate glue. Once the glue had set I trimmed and sanded the roof to match the curve of the housing wall. The front was cut straight across, about 3/32 inch in,



Laramie took the rather ordinary *Italeri* 'Marine Sherman' kit and turned it into this M4A2 bristling with add-on defensive touches.

leaving a deep "D" shape to the cover. I attached it over the *Verlinden* periscope previously installed.

I decided to depict my Sherman as just off the LCT or about to disembark. I made up a mantlet cover from foil, cut size and superglued, then filled with *Mr. Surfacer* 500 and sanded smooth. I also rigged a muzzle cover for the 75mm cannon from foil. I glued strips of tape around the edges of the covers to simulate sealing tape. The bow gunner's .30 caliber machine gun was covered using *Milliput* putty rolled out thin, applied and trimmed to shape.

I installed photoetched brackets on the rear of the turret for stowage of the .50 caliber machine gun that just about finished the turret, with the exception of adding the ten-penny nail anti-infantry protection. I tried a couple of methods to attempt installation of the many, many nails that were welded onto the turret hatches and periscopes of the original. Stretched sprue and brass wire were tried but I really could not get a good point with any reliability when cutting the lengths. The perfect item was found on a trip to a train shop when I asked if there were any scale railroad spikes about inch long. Yea, verily the man behind the counter produced a small bag of tiny spikes that were already coated in black and looked great.

I set up a jig and merrily clipped hundreds of the buggers in preparation for attachment. I found that by using a set of dividers set to about 2mm I was able to make fairly regular

spacing for the nails. I used a drill bit the size of the spikes and drilled shallow holes.... Lots of shallow holes. The nails were dipped in superglue and placed in the holes. There were some nasty words now and then but the result was gratifying. When I painted the model and weathered it, only a few nails came loose and had to be reattached. I used the same methods to install armored covers and nails to the driver and co-driver hatches. The assembled model was washed with dish soap and water, rinsed and allowed to dry.

I started the camouflage by spraying the upper hull and turret with *Tamiya Buff* and allowed that to dry for two days. The lower hull and running gear was painted Olive Drab. I hand-painted the OD and Brown patches with *Tamiya Olive Drab* and Red Brown acrylics, thinned with water. Yes Virginia, hand-brushed *Tamiya* acrylics. The waterproofing covers were first painted khaki, then shaded and dry brushed to show highlights.

After some touch ups and evening out of colors the model was allowed to dry for a day then I sprayed a coat of *Floquil* acrylic gloss in preparation for washes and decals.

The sandbags were sprayed *Tamiya Khaki* and individually tinted and shaded to prevent a monotone appearance. They were washed with a dark black green wash to pick out seams and folds, then highlighted by dry brushing.

I used a dark dirty mix of burnt umber and lamp black artists oils to wash panel lines and pin wash around various details to pop them out and make the appearance more realistic. After that dried, I used enamels and oils to drybrush raised areas for highlighting

I had gotten a copy of Steve Zaloga's old book on Marine Corps armor in the Pacific that had several pictures of USMC tanks on Iwo Jima, including a better photo of the actual tank I was modeling. I discovered that the road wheels were of at least two different types, a not uncommon Sherman situation. I looked closely with a magni-

fying glass and it was clear that while one wheel was a standard six-spoke stamped model, the rest were five spoke cast wheels with a solid web connecting the spokes. I found reference to that wheel in *Ampersand's Guide to Modeling the Sherman*, both drawings and a photo of the real article. A previously unknown variation (to me anyway) cool! I made

up three masters using *DML* five spoke wheels and had them cast up for this project.

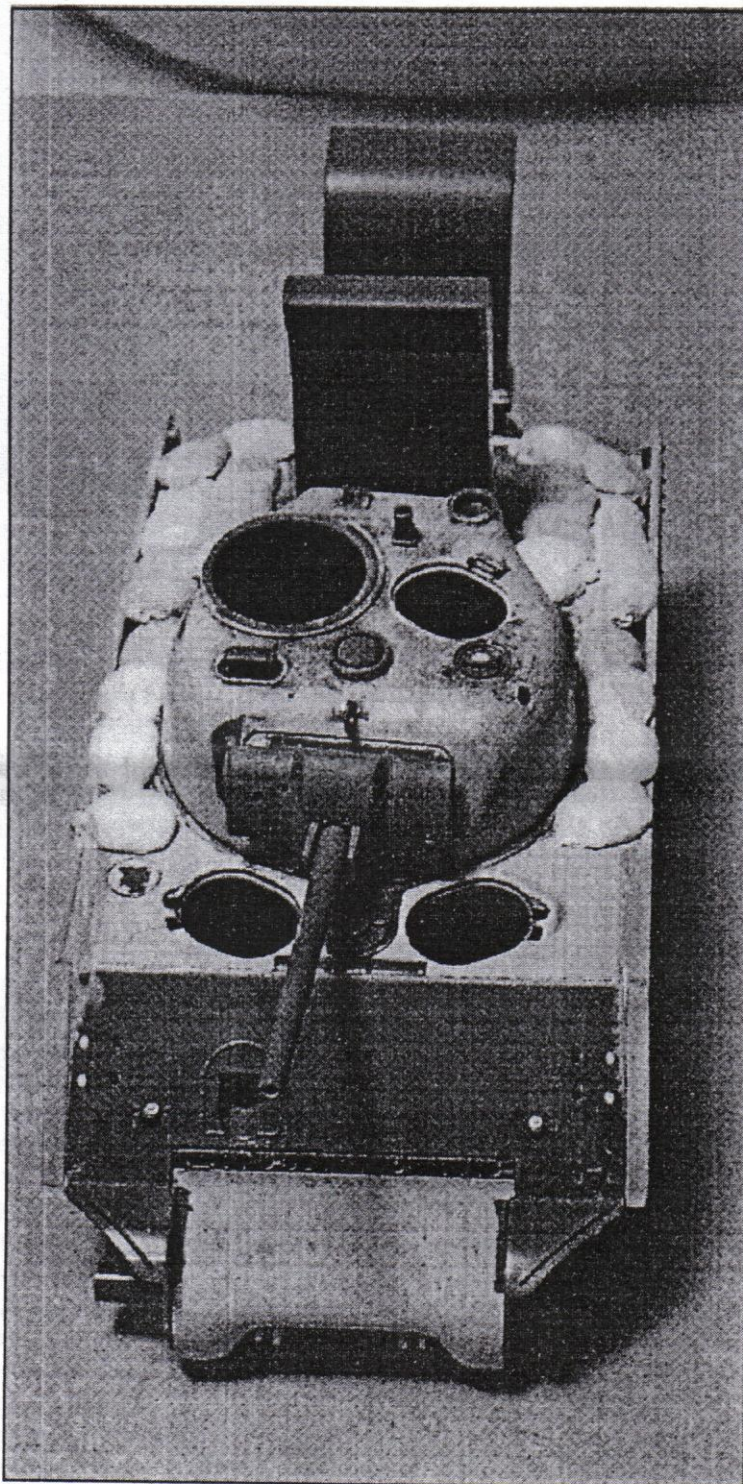
I found a set of the proper steel chevron *VVSS* tracks with wide extended end-connectors (duckbills on sale at *R & J Products*.) The *Cromwell* resin tracks were a new experience for me, but following suggestions from various magazine articles I cleaned them up and assembled them in two runs per side. I used the individual links to finish the track runs, then formed the tracks around the sprockets and road wheels using boiling water applied with an eyedropper. I made an error on the first side by fitting the indie links too closely and had to scratch build a couple of extras from a spare track length from an old *Tamiya* kit. My lesson learned, I assembled the run correctly.

The tracks were removed and the lower hull and running gear were over sprayed with a mix of earth brown and flat black, then dry brushed to bring out details. The track was painted steel, then oversprayed with the same color as the lower hull. I used a silver artists' pencil to highlight the wear points on the tracks, connectors and running gear. The tracks were attached and a final light dust coat was applied to tie the elements together.

I added markings consisting of vehicle numbers inside squares. I used waterslide decals for the open squares and applied rub on railroad numbers inside and on the rear of

the exhaust trunk. A coat of *Floquil* flat coat was applied to the entire vehicle to seal the decals and even out the finish.

All in all, it was a very satisfying project for me. The new materials and techniques as well as the custom wheels were great fun.



The hull before the addition of the tracks and 10-penny nails. Laramie painted the sandbags in a manner that avoided the monochromatic look.

Record-breaker: building *Combat Models' Do-X*

Continued from page 1

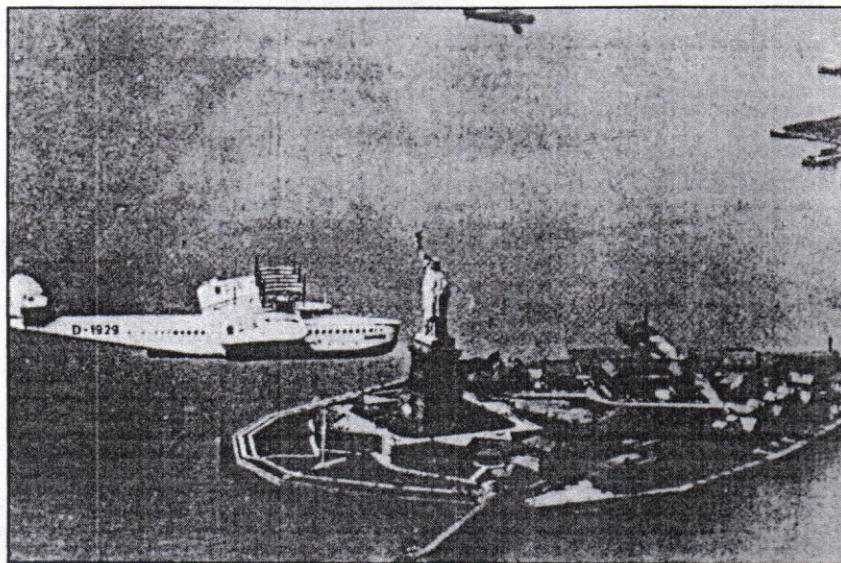
The Do-X did make the flight from the Rhine River in Germany to New York City and back, but it did nothing to evoke dreams of regularly scheduled passenger service, primarily because it took a year and a half! The German press chided the effort, saying that Columbus made the trip in half the time and at a fraction of the cost. It was a circuitous route, heading south to the Cape Verde Islands off the coast of Central Africa. Here, all the non-essentials were removed to save weight. Then, she headed west, skimming along at 10 feet above the wave tops, using her huge wing to take advantage of surface effect (foreshadowing the Soviet Ekranoplans 40 years later). She put down safely in Brazil off the lee of Fernando de Noronha's rocky shores. Then, it was off to Natal and Rio de Janeiro, just seven months after departing Germany!

After a month's stay in Rio, she headed north across the Caribbean, making all the stops along the way. The world's largest airplane dropped anchor off New York City's Battery Park in August, 1931. It was two years after the stock market crash, and the nation was immersed in the Great Depression. "Buddy, Can You Spare a Dime?" was a popular hit song at the time, and that was the price asked for to visit the beached Do-X while she was being overhauled in New York. There

wasn't a nickel of investor capital to be found in America. After an almost nine-month stay, she flew back to Germany. There, she was placed in a Berlin museum, where she was destroyed by allied bombers during World War II. As of 2002,

a group in Germany was hard at work building a full-size non-flying copy of this behemoth of yesterday. If they build it, I will come!

I have to thank the late John Rucks, CEO of *Combat Models*, for making a 1:72 model of the Do-X available. I had built the Jupiter-powered kit offered by the *Ideal Toy Co.* in the odd scale of 1:156 back in the '50s. Later in the '70s, *Otaki* made a nice little 1:144 kit of the Conqueror-powered ship. I have a rule: if you build for display, everything



The Do-X flies past the Statue of Liberty on her arrival in New York, August 1931.

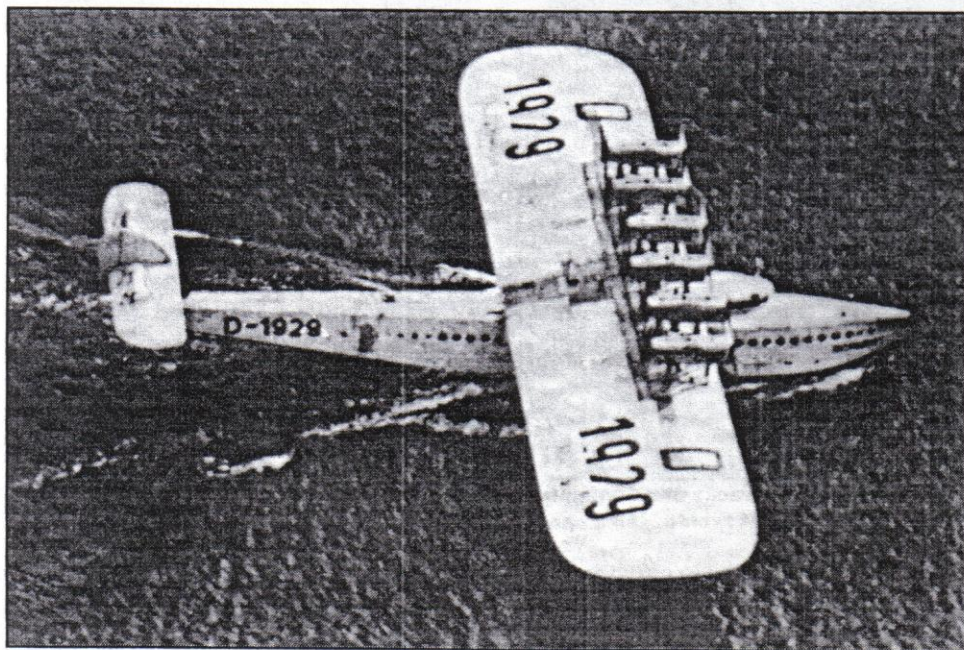
must be to the same scale. Regardless of what your wives and girlfriends have told you, size is important. If the viewer sees a mix of aircraft displayed together, he knows what's big and what isn't. Now you know why I had to tackle this so-called "kit." I feel that John saved me from having to scratchbuild the thing. The good parts:

1. It was in 1:72;
2. The hull, sponsons, empennage, and nacelles were usable.

The bad parts:

1. The top wings were not contoured correctly;
2. The .040 vacuformed plastic was flimsy and needed lots of balsa support;
3. There was no scribing whatsoever;
4. There were no propellers, exhausts, struts or interior parts;
5. There were no decals;
6. Surprise! There were moldings for the Do-X2 cowls, if one chose to build one of the two sold to Italy with 12 neatly-faired A-22R liquid-cooled engines. These two giants, named "Umberto Maddalena" and "Alessandro Guidoni," were intended for commercial use, but could not perform that task. They were turned over to the military, who quietly scrapped them.

This kit provided only a starting point. The wing connection points were made from balsa, and I used the vacuform plastic as a skin. They were bonded with contact cement, which sucks heat out of styrene and makes the wing cold to the



The Do-X was good at taxiing; on one leg of her trip, she taxied 60 miles to conserve fuel! Note the large above-wing ailerons.



Jim's Do-X poses on the blocks. The vacuform kit was complemented by resin cast props, braced metal engine struts, and a paint job of Orchard Supply Hardware aluminum!

touch for a minute while bonding. I re-shaped the tips using *Magic Sculpt* resin putty. Also, I inlaid the leading edge with pre-scribed .020 styrene sheep bought at a model railroad shop. This effectively simulates the corrugations. The wing panels were scribed and all the engine struts were marked and drilled. The ailerons were cut out, detailed and re-installed.

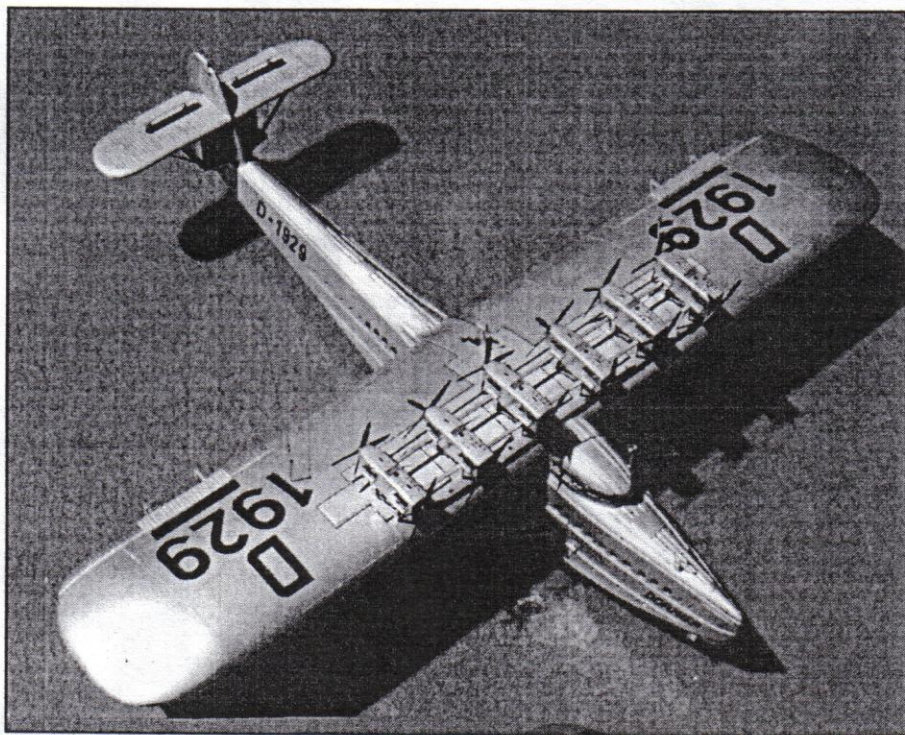
Aileron auxiliary tabs were scratch-built and installed. All ribbing was simulated with 1/64-inch chart tape. Evidently, the computer revolution has eliminated the need for this stuff, and it's really hard to find these days. I added detail to the empennage in the same way as the wing.

The first step in building the hull was to drill out all the portholes—36 on each side. I braced each side vertically and horizontally, so that it was strong and rigid with no flex anywhere. Then, I bonded the two sides. At that point, I could add the cockpit interior, as the cockpit roof is a separate molding. Next, I glued on all the stiffeners, which run along the sides and top. The sides have two wide stiffeners and one narrow one, and five stiffeners on the top. There are hatches as well, all made from .015 plastic card.

I built a jig using a couple of boxes and some yardsticks to aid in attaching the wing. Then, I added the sponsons and the cockpit roof, and faired them into the wing. Next came the empennage and the struts, which

were made from *Contrail* streamlined strut.

I assembled the six vacuformed nacelles, then scratchbuilt six radiator fronts and drilled them to accept propellers. Next, I made six external radiators for the rear engines and made 24 exhaust manifolds with 12 pipes each, using insulation pulled from 16-gauge electrical wire. I made cooling louvers using



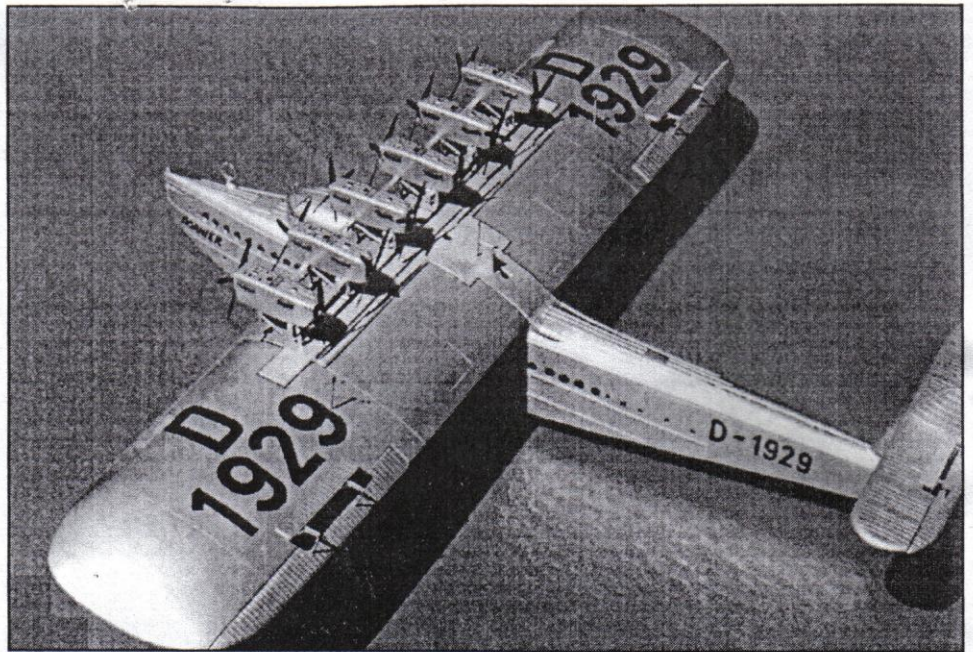
In this shot, the offset of the engines is easy to see. Jim used an Aeroclub propeller as the basis for his 12 four-bladers.

the 1/64 chart tape.

I marked the locations for the engine mounting struts and attached the struts to the upper wing. These struts were made from stiff .020 piano wire and were inserted through the plastic skin of the wing and into the internal balsa for strength. Remember, these are staggered in and out. The nacelles were pre-drilled and I kept them aligned while I installed them by sliding a block of balsa cut to the proper height under them. Then, I cut strips of fine, glossy paper and folded them around the piano wire to form streamlined struts, and set them with white glue.

I used a spray can of Orchard Supply Hardware aluminum spray paint and painted the model, then masked off the bottom of the plane and painted the lower hull a semi-gloss black. I added the portholes with Kristal Klear and made the windshield windows from .010 clear plastic sheet.

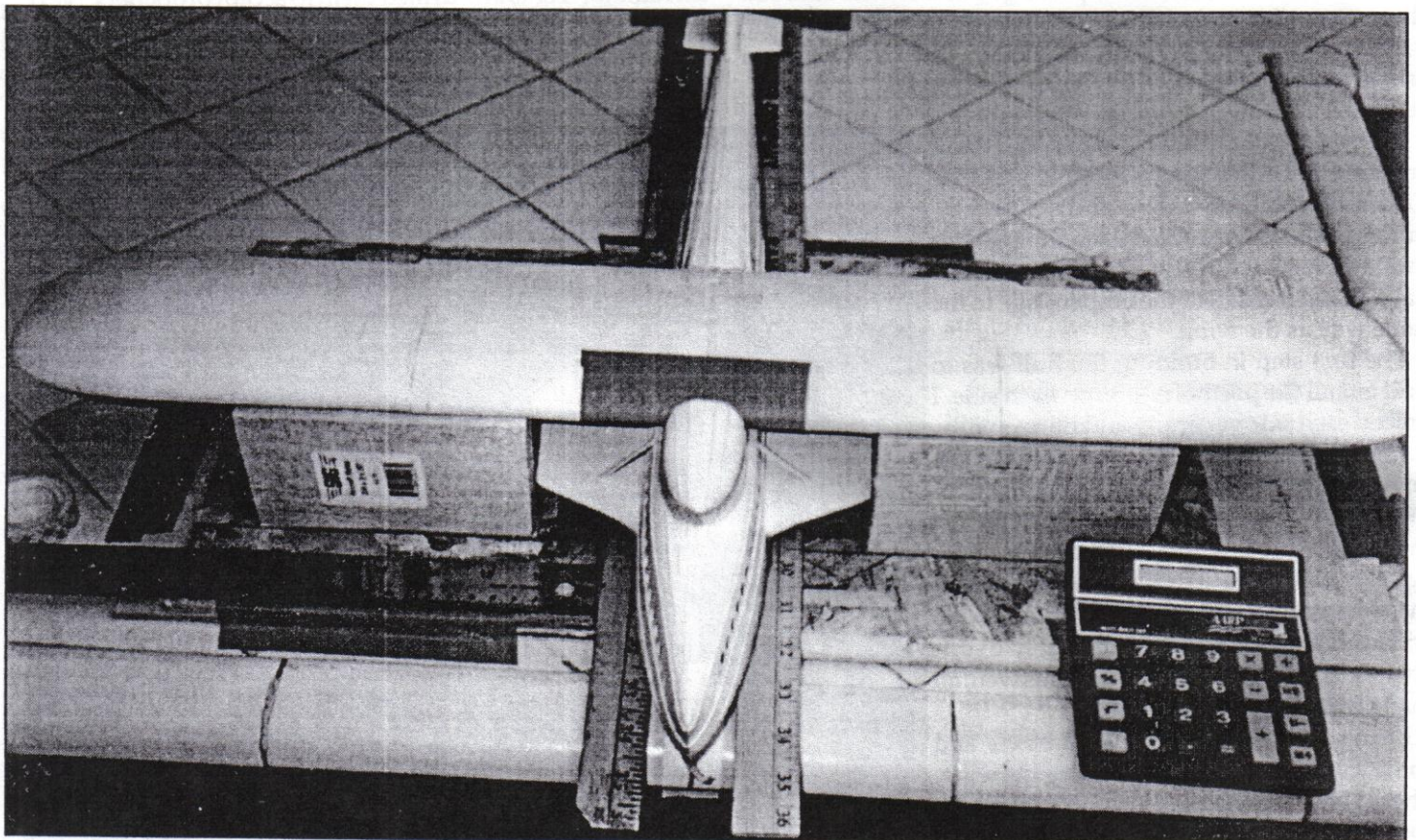
I drew up a set of markings as per the photos. Supposedly, when it left Lake Constance, it was painted white with red numerals. No color photography was available in 1929, so all of this is speculation. After the long journey to New York, after many accidents and re-builds, it appeared to be painted aluminum with black numerals, according to the beautiful black-and-white shots taken by photographer Rudy Arnold. Taking all this into account, I printed my decals at the local



One of the more arduous tasks in building this big flying boat was drilling out the many portholes!

copy place in black onto my blank decal paper.

When the decals were in place, I was now ready to install the propellers. I took a white *Aeroclub* four-blader and modified it to match the Do-X's. Roy Sutherland was kind enough to make me 12 resin copies, which are probably the neatest things on my model. I opened the side door above the starboard sponson and placed a figure stepping out and waving triumphantly, which is a little like how I felt when I finished the model. Is this hobby fun or what?

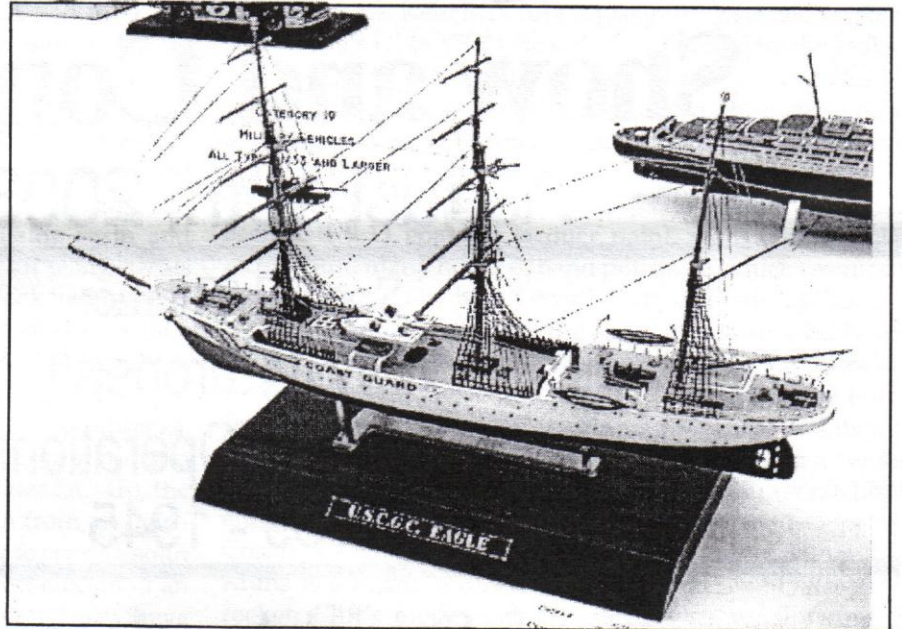


Jim's assembly jig made use of items he had around the house although in this case they needed to be large and sturdy items!

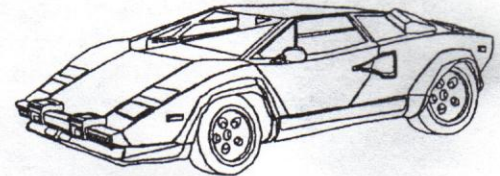
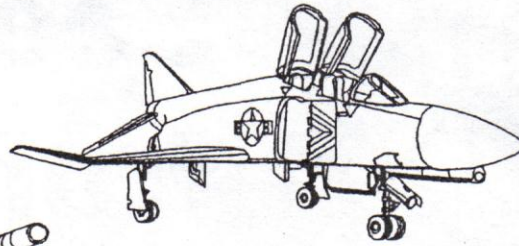
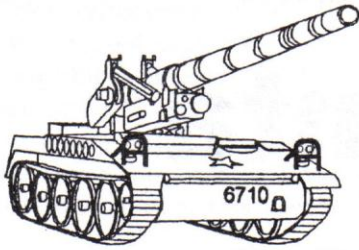
Scenes from Santa Rosa



Above, Robin Powell's 1:48 Skyshark from the *Dynavector* kit; at right, the U.S. Coast Guard Bark *Eagle*; below, the 'Speed Modeling' contest, in which contestants had an hour to build a *Revell Fokker D.VII*.



Photos by
Mike Burton



IPMS
CENTRAL VALLEY SCALE MODELERS
15th Annual Scale Model
Show and Contest

August 10th, 2003

Special Theme:
W W II European
Theatre of Operations
1939 - 1945

Raffles & Special Awards as follows:

Best of Show, Senior
Best of Show, Junior
Best of Show, Aircraft

Best of Show, Armor
Best of Show, Civilian
WW II E.T.O. Award

Holland Elementary School Cafeteria
10AM to 4PM

APRIL MINUTES

At the April meeting, we got the good news that Greg Plummer had been chosen as one of the four grand prize winners at TamiyaCon, and he'll be traveling to Japan on *Tamiya's* dime for a week as the tallest person in the country! Greg won the trip with his cutaway 1:48 *Mosquito*, which is described a little later in the minutes. Incidentally, the reason it was at the meeting was that the awards announcement was messed up at the contest, so Greg didn't know he'd won until Monday!

Another piece of good news: our model drive continues to help veterans in the area's VA hospitals. Steve and Anita Travis reported that they delivered 25 models and puzzles to the Martinez Veterans Administration Medical Center this month. John Heck could use more donations to sustain this effort; if you have anything to donate to this cause, see John at the next meeting.

Former member Chuck Hanson, who turned his research into one of the most comprehensive volumes on nuclear weapons and, in the process, earned the ire of the U.S. government, passed away in March.

In model talk... Ron Wergin says the *Aoshima* model of the Japanese destroyer *Yukikaze* is not a good kit, and the *Hasegawa* kit of the escort vessel *Momi* is even worse, but he finished the two to a high standard. Ron discovered while working on these kits that "photoetch is no fun." Gabriel Lee added landing gear and missiles to *Frontier Models'* resin SA-43 Hammerhead, from the T.V. series "Space: Above and Beyond." Matt Reich's return to the club saw him bring in an F/A-18E in 1:48 that was his first effort using resin and applying weathering. He marked the *Italeri* kit using decals from *TwoBobs*. Once upon a time, Andy Kellock had a yen to build a bunch of Vietnam War aircraft, and of course they needed forward air controllers, hence his *Arii* O-2 and his *Airfix* O-1. Both were improved by home-made parts improvised from household supplies like staples and toothpicks. Jim Lund used plans, plastic sheet and Magic Sculpt putty to scratchbuild a model of the Douglas DC-4 (later DC-4E), the tri-tailed pre-war airliner. He used cowlings from an *Italeri* DC-3, *Aeroclub* propellers and a lot of sanding to create a solid model that weighs at least three pounds! John Heck had an example of *CollectAire's* latest 1:48 jet, an FJ-4 *Fury*. Steve Travis mixed the paints himself for his 1:144 *Minicraft* Aichi B7A2 "Grace" torpedo bomber. Even in this small scale, Steve says, the decals behave themselves very well. Steve and his lovely wife Anita each took a crack at *Galaxy Limited's* re-

release of the ancient *Monogram* slingshot dragster; naturally, Steve's was blue and Anita's was pink! The Travis team painted their carburetors with a special mix of paints to capture that golden hue. Richard Hubbard had a good time with *Tamiya's* 1:72 F4U-1A *Corsair*, adding much brass from *Eduard's* photoetched detail sets and weathering his bent-wing bird heavily. Richard's *Corsair* depicts the one flown by Tommy Blackburn, CO of VF-17 in 1944. Mark Hernandez added a few finishing touches to *AMTech's* Ta 183, including additional surface detail and modifications to the cockpit. Mark made a new exhaust pipe from the top of a ball point pen! Frank Babbitt's latest project is a *Tamiya* A-1H *Skyraider* finished in the markings of South Vietnamese Air Force head Nguyen Cao Ky. Frank installed a *Cutting Edge* cockpit and he's experimenting with weathering on the A-1, a notoriously dirty airplane. Frank's completed a *Tamiya* *Meteor* F.1, in what he says is an oddly-normal paint scheme (for him)! The *Meteor* makes for a very straightforward build, says Frank. Chris Bucholtz is busy adding details to the cockpit of *Matchbox's* T-2C *Buckeye*; he says he'd do a detail set for it if it weren't for *Matchbox's* weird way of building the cockpit floor into the fuselage sides. Kent McClure is just getting started on *Revell of Germany's* 1:144 YF-23; he says that, judging by the looks of it, it ought to fall together. Kent also is getting close to finishing his 1:72 Ford Model T, which will probably end up as a smuggler's truck, and he's got four new critter commandos figures ready for gaming. Greg Reynolds brought in a selection of cars he built to practice his use of spray lacquers; each had 9-11 coats of lacquer paint, eight coats of clear lacquer and many hours of hand polishing, which resulted in their stunning finishes. Terry Newbern made up his own Russian armored car, starting with a real kit's body and adding a half-track rear suspension from *Games Workshop*, resulting in what he says looks like "an armored '39 Ford." Greg Plummer's TamiyaCon-winning *Mosquito* had its interior built up with plastic stock, which was painted a "wood-like" color, and had an *Aires* Merlin mounted on a scratchbuilt engine mount. Greg painted about half of the model as a Coastal Command aircraft using *Model Master* paints. Cliff Kranz is scratchbuilding the engine parts for his *Revell* V-2 rocket; Cliff's model will also be a cutaway, showing the rocket with its interior exposed on its truck. And the model of the month went to... Greg Reynolds for his purple 1933 Ford! Greg put plenty of elbow grease into this model—although not enough to polish through the base coat!

To submit stories, letters, requests for help, or wants and disposals to the

STYRENE SHEET

Write to:

**Silicon Valley Scale Modelers, P.O. Box 361644 Milpitas, CA 95036
or, by E-mail, to bucholtzc@aol.com**

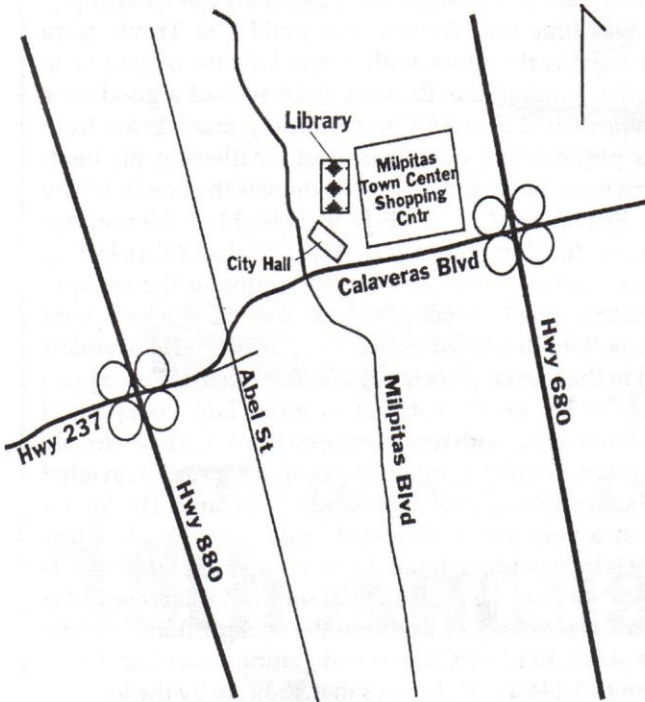
Next meeting:
**7:00 p.m.,
Friday,
May 16**

**at the Milpitas
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