



Jim Schubert  
**seattle**

## **chapter quarterly**

HOSTING IPMS-US 1972 NATIONAL CONVENTION JULY 14, 15, 16, 1972

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### SCRATCH BUILDING THE RARE ONES - John Greer

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One of the most frustrating situations facing the fancier of rare or "one-off" aircraft is the almost complete lack of kits from which to choose. Modellers interested in in between-the-wars and first generation jets also run into this problem, since there are few kits available in these areas. A recent issue of the British magazine, Scale Models (no relation to the American Scale Modeller) came up with an intriguing method of scratch building an otherwise unavailable plane. Since I am somewhat of a "rare bird" nut, I decided to look into the possibility of producing my own plans for this sort of model. The result was the 1/48 plan of the Bell XP-77 shown here.

This method of scratch-building, to some degree, follows old "stick model" idea, especially in the fuselage. It definitely not for the beginning modeller; but it can, I hope, result in a decent model of a unique subject. I use the term "hope", as I have not had the time as yet to try out the plans, although I expect to by the time this quarterly is published.

The plans can be drawn to the scale of your choice using any of several methods. I used the old expanded graph idea to get the basic side and plan views of the fuselage and the general outline of the wing and tail. Location of fuselage formers is simply a matter of judgment as to the various curvatures and angles involved. The wing is a folded affair with spars for stiffeners, and the tail surfaces are solid sheet plastic. The landing gear, canopy, and various details can be built up from scratch, vacu-formed, or gleaned from the ever present spares box.

As far as construction is concerned, I can only make a few wild guesses, but I would suggest glueing the formers to the vertical keel and adding the plan view keel by pieces. In fact, on a small 1/72 scale model, I wonder if the plan view keel is even necessary. When this is completed the entire fuselage should be covered with areas of 20 thou. plastic sheet, then filled and sanded as necessary. The wing spars, like the fuselage keels and formers, should be cut from 60 thou. sheet and covered with 20 thou. sheet plastic. The Scale Models article suggests folding the wing over the edge of a ruler, which should give the proper bluntness to the leading edge. One final suggestion might be the possibility of completing the wings first and connecting them to the uncovered but otherwise completed fuselage. This might make covering the fuselage a little more difficult, but it should also make setting the wings straight and getting the correct dihedral much easier.

If you do try this model, or if you have a favorite "rare bird" of your own, take the next step and draw your own plans; or you can check with me through the quarterly for others that I have done, including the Curtiss S03C, Ikarus IK-3, and SAAB-21.

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### NOTES FROM THE SCRAPBOOKS OF J.R.H.G. ET AL

- John Gray

Although the W.W. I modellers in this club are in the minority, we believe that integration is a wonderful thing. After all, outside of the bird cage like rigging that practically all aircraft sported prior to 1936, most modelling techniques are applicable to all plastic modelling including W.W. II aircraft, modern aircraft, ships, tanks, or you name it.

The last few years have seen an influx of young modellers into our group. This Quarterly Newsletter will give the older members a broader base upon which to pass information to our younger brothers.

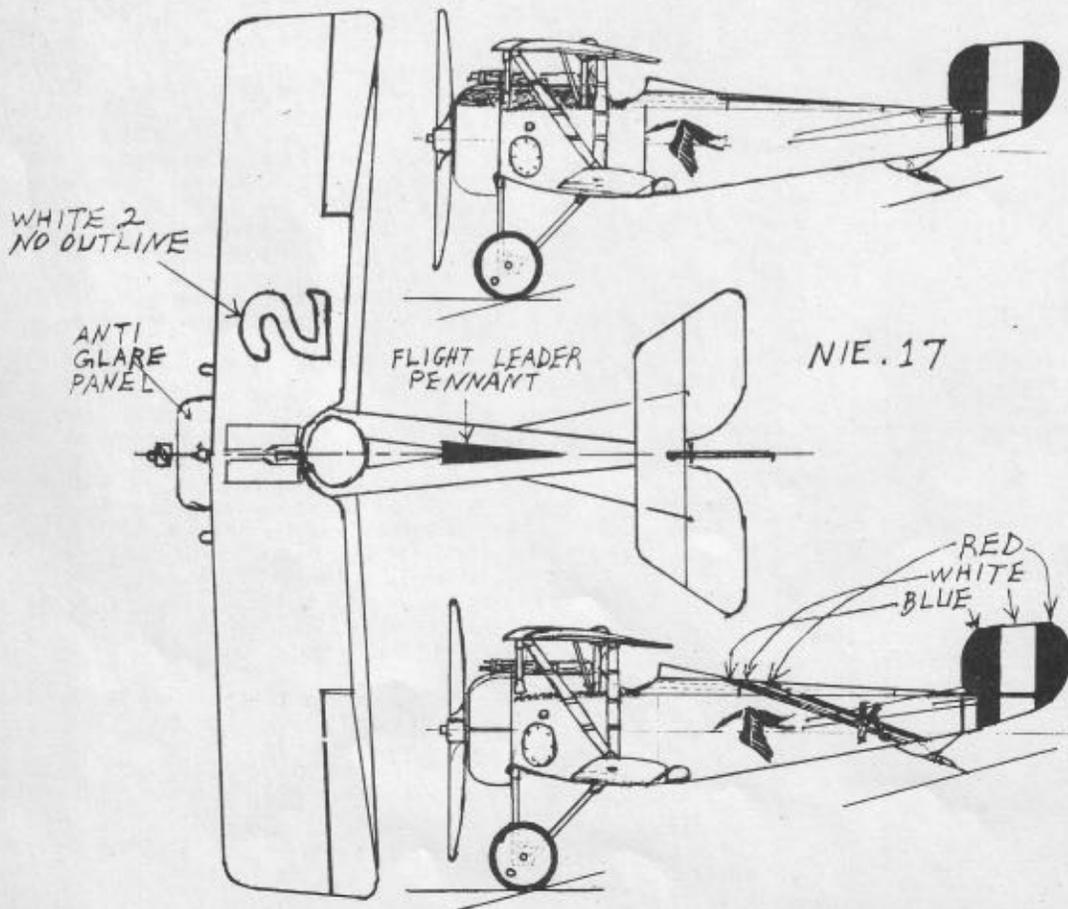
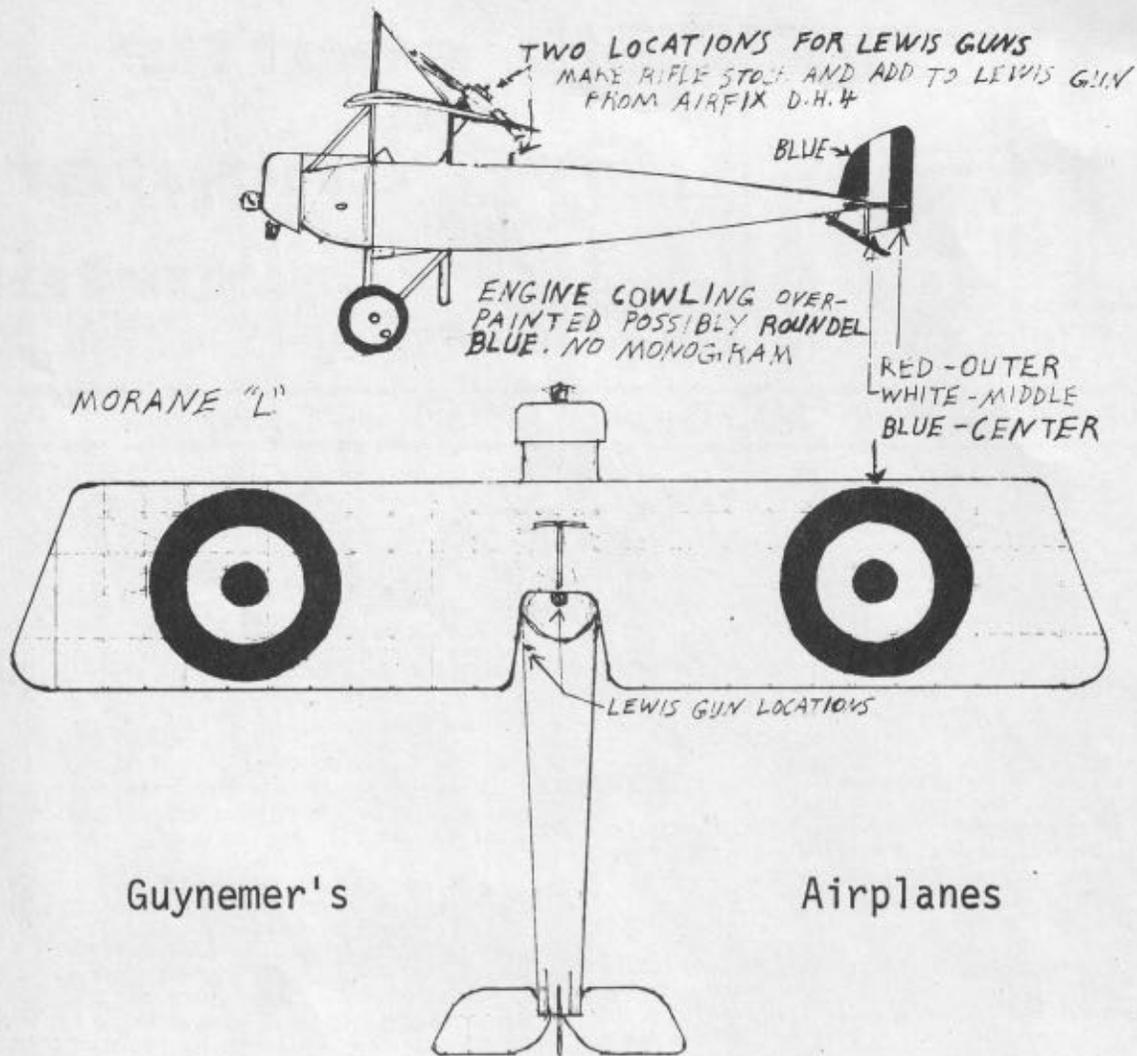
As a model builder since 1928, and a scale model builder since 1930, your writer has accumulated a few items that might be of interest. For instance, did you know that not all W.W. I aircraft flew with tires made of black rubber? Some were equipped with white side-wall tires. I remember seeing old cars, mostly out of service, sitting around garages and barnyards with tires of various colors. Some were all red, a light color that weathering would actually turn pink. Others had red tread with white walls, white tread with red walls, likewise with green and blue. Unless memory fails me, Fisk had all white or all red tires as their major advertising gimmick for a number of years in the early Twenties. While there is no way of telling the color of tires from a black & white picture, it is fairly easy to spot white side walls. At least the British, Germans, and Americans used such tires.

When Richthofen's Jasta 11 painted the bodies of their Albatross D11s red in the late spring or early summer of 1917, British Naval 8 did the same to their Sopwith Tripes. Incidentally these two units apparently respected each other to a high degree. They were often assigned to the same battle area, but there were very few victories claimed by either group over the other. Could be they were just too evenly matched to be able to reach decisions over each other.

In regard to Nungessors Nieuport 24bis, some sources have credited it with being powered with the 150 H.P. Bently engine. Close study of photos will reveal that instead it had a Clerget, possibly the 130 h.p. job. This airplane not only had red, white and blue chevrons painted on top of the top and bottom wings, they were also painted under the bottom of the bottom wing. There is a very good reason why this airplane had the same serial number as his earlier Nie. 17. The 24bis. was supposedly built especially for Nungessor, and before he flew it in combat, his mechanics removed the rudder from his Nie. 17 and installed it on the 24bis.

### GUYNEMER'S COMBAT PLANES

Most of the planes flown by Guynemer had the name *Vieux Charles* (Old Charley) painted on their sides, yet he almost if not always used the planes in the colors they left the factory with. The Morane Saulnier "L" he was flying at the time of his first official victory had the factory finish, but, if we are



to believe what we see in pictures, it had two machine guns installed on it. One picture shows a Lewis gun with ground stock and 48 round ammo drum installed on the top of the wing behind the rear spar with supports attached to the rear center section struts. Another picture shows another Lewis gun mounted behind the rear cockpit on a post. This gun also has the round ammo drum. Neither picture shows both guns although the last mentioned pictures definitely shows the supports from the center section struts up to the bottom side of the wing. Could be two guns or one gun the poor observer had to move from one mount to the other.

Guynemer also achieved victory number four while flying a Morane Saulnier "L". Its armament I do not know.

The plane he used for victories two, three, and five through eight was the single seat Nieuport 10. This plane had a Lewis gun with ground butt and 48 round ammo drum mounted on top of the upper wing. It also had a very large wind screen. This was probably the first of his planes named "Old Charley". Cockades were only on the undersides of the top and bottom wings. Fabric surfaces were clear doped, or appeared to be. The plywood panel under the bottom of the fuselage covered the area from the engine cowling to a spot about a foot behind the trailing edge of the lower wing. This panel was clear varnished. All metal surfaces appeared to be left natural aluminum color.

Victories nine through fourteen were in Nieuport 17's. He appears to have used at least three Nieuport 17's. The first one was camouflaged and had a large spinner on the prop; the cowling, spinner, and outer wheel-covers appeared to be white. It had a Lewis gun on the upper wing, and a Vickers gun on the fuselage. The upper wing had the transparent center section, and no cockades on top. Other details are unknown. This is the airplane that shot its prop off.

Guynemer's second (?) Nie. 17 was the light uncamouflaged type shown on the Revell box top. This plane had the transparent center section, a Vickers gun on the cowl, no cockades on top of the upper wing, and another very large windscreen. For identification purposes it had the usual escadrille N3 stork on the fuselage side, a large white 2 on the upper right wing half way between the aileron and the center section cut-out. It also had a large black or red pennant painted on the turtledeck, to denote the fact that Guynemer was a section or flight leader. This plane also had the upper deck from the cockpit forward including the engine cowling, and from center section strut to center section strut. It was painted a dark color, undoubtedly for anti-glar purposes.

Pictures show Guynemer in yet another Nie. 17. This one also has the transparent center section. The stork is painted farther back on the side of the body, and it carries the red, white and blue band of a squadron, or escadrille leader around the body behind the stork. There is some number other than Guynemer's usual 2, behind the stripes. About this time Guynemer was appointed Escadrille Commander, so it is possible this plane was the one normally used by the normal commander.

Victories 15 through 18 were achieved on S.P.A.D. VII number S113 which he received on September 2, 1916. He was shot down in this plane by his own artillery on September 23 after having shot down victims No. 16, 17, and 18. S113 is the S.P.A.D. VII that is pictured with the diagonal red, white and blue band around the body. This plane had *Vieux Charles*, a black stork, and a black 2 on the sides of the fuselage but nothing on top of the upper wing except the roundels. The colored band went completely around the fuselage. This was an uncamouflaged airplane.

Victories 19 through 25 were achieved with a S.P.A.D. VII, serial no. unknown. These victories were achieved in November and December of 1916, so this plane did not last Guynemer an exceptionally long time. This plane had the large 2 on the top right wing with a mirror image 2 on the top left wing, just opposite of what was put on Guynemer's next S.P.A.D. VII, No. 34 which he flew for victories 26 through 45 omitting No. 30. Victory No. 30 was achieved while flying Lt. Becquet's S.P.A.D.

S254 which he flew for victories 26 through 45 omitting number 30. Victory number 30 was achieved while flying Lt. Becquet's S.P.A.D. VII.

S.P.A.D. VII S254 was the first with the new 180 h.p. Hisso 8Ab engine with 5.3:1 compression ratio. This engine gave 204 h.p. at full throttle. Guynemer used S254 without an engine change from about January 1, 1917, until July 5 when it was put on display in Paris. No. S254 still had its factory finish at the time it was put on display. This airplane also had the pennant on the turtledeck, denoting a flight leader. The large 2 was on top of the left wing with the mirror image 2 on the top right wing. All of Guynemer's S.P.A.D. VII aircraft had *Vieux Charles* on the side of the fuselage just below the aft portion of the exhaust pipes, the location varying but slightly.

Numbers 2 and 254 had the 2 on the sides just forward of the tailplane, and dark storks in the usual spots.

Victories number 46, 47, 48, 53, and 54 were made while flying S.P.A.D. XIII's. Whether all with the same one we do not know. Can anyone help us out on this? The prototype first flew on April 4, 1917; this was S392. We can safely, I think, say that Guynemer had one of the first if not the first production XIII produced. As before, Guynemer's plane was as it came from the factory, with only his usual identifying marks. There are noticeable differences in the shape of the wing tips, ailerons and center section struts between the early S.P.A.D. XIII's and the later ones used by the U.S.

Victories 49 through 52 were gained while flying the S.P.A.D. XII, cannon ship. This plane was also uncamouflaged. At about this time he was again the Escadrille C.O. and his planes were sporting the tricolored band around the fuselage. In this case the band is centered on the stork. *Vieux Charles* and the 2's have been altered in style over that on his S.P.A.D. VII's. Unless someone can tell us differently, we will presume his XII and XIII were decorated alike.

In view of the foregoing information, which is not undebatable, Guynemer used at least eleven different airplanes in winning his 54 victories. How many more he used is anyone's guess. From the study of pictures of his aircraft it is obvious that Guynemer insisted on having oversize windscreens on his aircraft. Who likes drafty cockpits anyway?

If anyone can add further information about Guynemer's aircraft, we would really appreciate it. We would also like any rare information you might have on Richthofen's aircraft, such as types, serial numbers and color schemes. Up to his 53rd victory the picture is not very clear; from that point on the identity of the plane he used for each victory is well documented.

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- The Aces*; Frederick Oughton
- The Friendless Sky*; Alexander McKeek
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- The Fragile Knight*; William E. Barrett
- The Early Birds of War*; Thomas R. Funderburk

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#### 1970 IPMS CONVENTION - Terry Moore

Since I was fortunate enough to be able to attend the 1970 IPMS Convention in Wichita, it was suggested that I write something about it.

The Wichita Scale Aircraft Modelers Association (note that the word plastic is not included in the name since some of the members build wooden scale models) put on the convention and they did a very fine job of it. It was held at the Radisson Hotel in downtown Wichita, one of the finest hotels in that city.

WSAMA had on display some of their models which were of very high quality and of aircraft you will probably never see in kit form. One member's main interest is making wooden models; he had on display a Beech XA-38, a Focke-Wulf Triebflugel which was a German design for a coleopter fighter that only reached the design stage before the end of the war, an XP-60a, and a Bellanca 28-90 (a military export version of the 28-70 transatlantic racer). All of these were in 1/72nd scale. Models by other members included an entire squadron of F4B-4's of VF-2, and a fantastic job on a Strombecker kit of a Convair XF2Y-1 Sea Dart. They displayed nearly 100 models, and, along with a display of models by the El Paso IPMS Chapter and the models in the competition, there were between 250 and 350 models displayed at the meeting.

I will try to tell you about some of the most outstanding models that were entered in the contest. The overall winner and the best of show was a 1/32nd scale Martin T4M-1 torpedo bomber, completely scratch built. This plane was without a doubt the best model. The Pratt & Whitney engine was a complete model in itself. Another scratch built model that was second to the T4M-1 was Lloyd Jones' XPB2Y-1, the prototype of the Consolidated Coronado series. He utilized a method in that the body and wings were carved from blocks of styrofoam and covered entirely with epoxy and then smoothed down by filing and sanding. Another model was an Aurora F-111a which the builder converted to an FB-111 (actually "rebuild" is the correct terminology for this kit).

Seattle's own Jim Schubert won awards for his Supermarine S6B and his Boeing CH-47 Chinook helicopter and although we tried, no one else who entered models from the Seattle chapter have anything to show for it.

There were about 75 armored vehicles entered, most of them were German Tigers with a few panthers, built by Rick Tyson. The most interesting piece of armor was an armored railroad car in 1/35th scale, scratch built.

The winner in the diorama category was a stepped stand holding five FW-190's, in 1/4" scale, which traced the development of the aircraft.

These were only a few of the outstanding models but due to lack of space I am unable to tell you about the many models which deserve recognition.

During the course of the convention there were two tours. One was a tour of the Military Twin Division of Cessna Aircraft and the other was a visit to McConnell Air Force Base. Bob Pickett of WSAMA also works for Cessna and arranged the first tour. We saw the assembly line where A-37's were in various stages of assembly, however the main interest was centered in front of the assembly building where several aircraft were parked. They were mostly A-37's and some O-1's. One of the A-37's was in U.S. standard three-tone camouflage and another was in Pakistani markings (white and green roundels in six locations with a Pakistani flag on the tail). The nose, tail and wingtips were fluorescent orange-red. Another most interesting scheme was one completely in chromate green. The national insignia was partially obliterated in some places and large areas of paint were worn away near the wing roots. There was about three tones of chromate green. The O-1's (about six) were O.D. all over with U.S. ARMY painted in black on the fuselage sides.

The next morning we went to McConnell AFB which is a training base for F-105 pilots. (I learned that in the past two years 36 F-105's have crashed, taking some of the pilots with them. Most all of these planes were from McConnell). We were able to take photographs of four F-105's,

all camouflaged, plus one F-106 in transit, an F4C, an F4E, and a T2V Sea Star, a Navy two seat trainer. In one of the hangers there was an F-86H, two USAF Sabreliners, and three USAF Hueys in a deep blue finish. While we were there several F-100's took off, but were too far off for me to see any of their markings.

Friday evening the business meeting was held and of course the main topic of discussion was about the financial problems that came up this past year, and the proceedings brought against the treasurer who allegedly made off with the treasury of IPMS/USA. President M. S. "Jerre" Vliet, said that the treasury was still several hundred dollars short of what it used to be and the main source of income was still the donations by IPMS members.

During the meeting a new treasurer was announced. The Executive Committee chose Bob Pickett of WSAMA to take over as treasurer. It was also announced that the executive committee had chosen Atlanta, Georgia for the 1971 convention. President Vliet said something "special" was planned and that it would be announced soon.

After the meeting, Paul Turner and Lloyd Jones talked about various facets of modeling. Paul Turner told us about new kits that will be coming out. A few possible releases include; a Ta 152 by Airfix, an Me 323 also by Airfix, a 1/32 scale Fw 190 and P-12E by Hasegawa, an early He 111 by Airfix; Letraset may do a Japanese and a Finnish sheet, Microscale may do three more German aces and also three P-40 aces. These are only a few of the most interesting possible kits and decals that may be seen in the future.

Next, Lloyd Jones of Revell answered questions submitted by members. Of course the first question was: What new kits is Revell coming out with? Jones said he was not able to answer that question, unfortunately. He also commented on the Stuka article by Rick Tyson in the latest quarterly. Every point that Tyson said was wrong with the kit, Jones said was right, i.e., the reason the swastika is not on the box art is because it is illegal to display it in Germany. Except for certain historical uses (like models) you are fined and/or jailed for showing it. Also the tail wheel is small because some models of the Stuka had small tail wheels, etc., etc., etc.

The reason the P-51b engine cowling is incorrectly shaped is because the mold maker was somewhat careless in making the mold. He also talked about the reissuing of old kits and said that it is very costly due to the different methods and higher costs of producing a model today.

Close to 200 people attended the banquet Saturday night to hear Ron Neal of Gates Lear Jet speak on "Aviation: Past, Present, and Future". He has written articles for Air Classics, and is the author of the history of the Bell P-59, done for AAHS. He is also a member of IPMS. After he spoke, the awards went to the contest winners (some of them have already been mentioned), and then drawings for door prizes were held. The following day there was a drawing for 2 Br-20's but only one was drawn. The other was given to an IPMS member who hitch-hiked all the way from Mexico City just to attend the convention, but unfortunately came in Saturday evening. How is that for dedication? In return for his efforts to make the convention we donated cash to buy him an airline ticket home.

Unfortunately all good things must end and so the 1970 IPMS Convention was brought to a close. I wish I could only go deeper, since I have only scratched the surface of the events that took place in Wichita during the 1970 IPMS Convention.

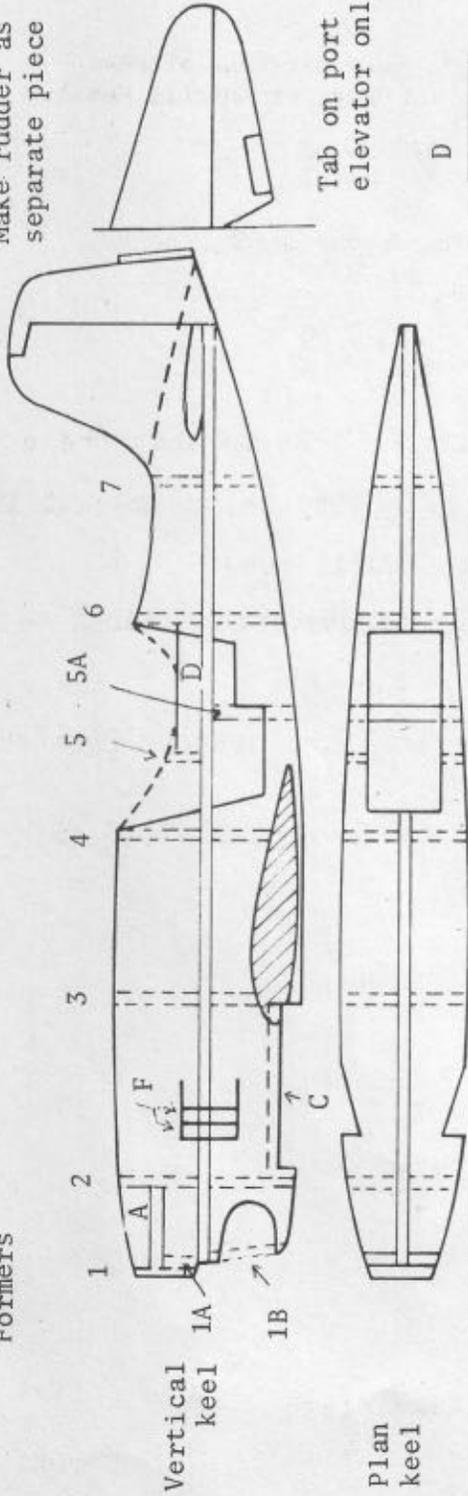
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# Bell XP-77

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Formers

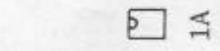
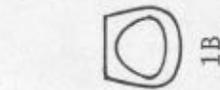
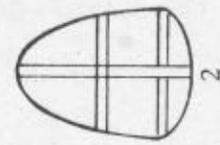
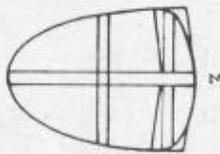
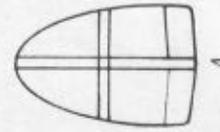
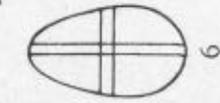
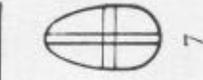
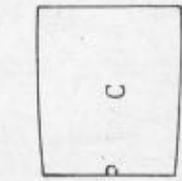
Make rudder as separate piece



Exhaust flaps  
(make 4)



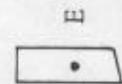
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Nose Gear Doors

Spar 1

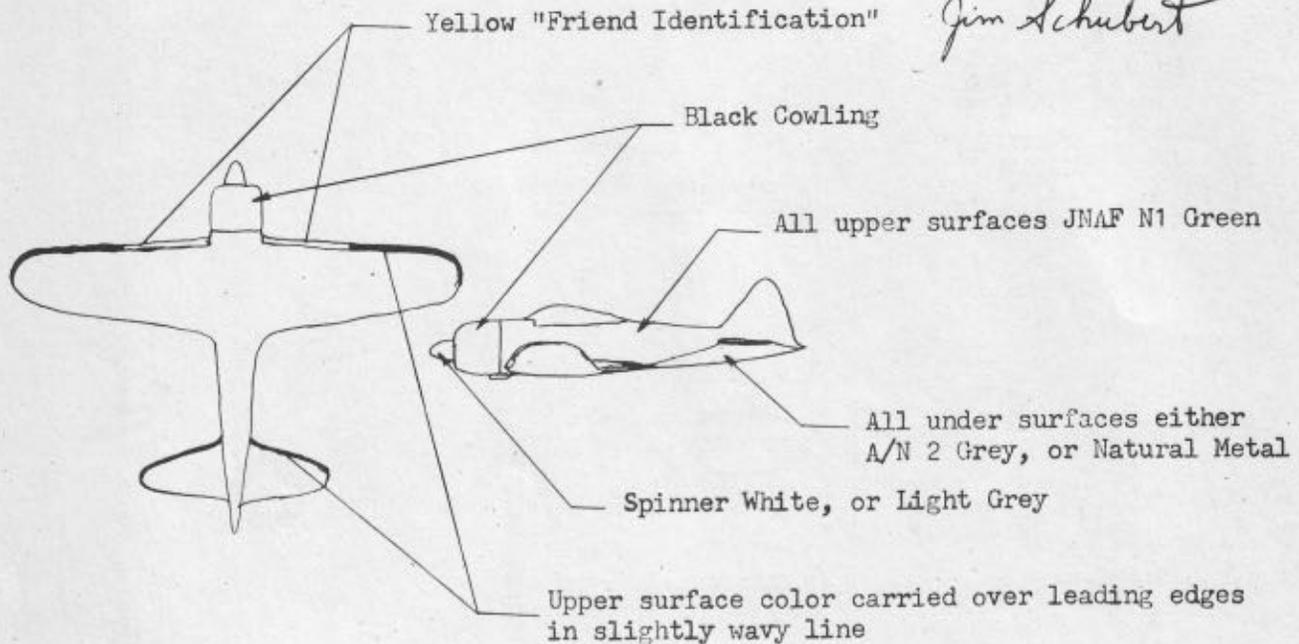
Spar 2



Dihedral 3/8"

# A6M5c (A6M5) ZERO SEN

by  
*Jim Schubert*



All exposed interior surfaces-flat metallic blue (light)

Insignia in usual six places; unit markings per your references

The only visible differences between the A6M5c and the A6M5 is that the c has cannon. As there is no really decent kit of this bird on the market in 1/72 scale you have to convert to get a good one. You'll need:

Hawk A6M5c Model 52 (body, tail, canopy, propeller)

Revell A6M5c (wing, drop tank, tailwheel)

A fourteen cylinder twin row engine (the best is from the Revell Curtis P-36)

Main wheels from the Aurora 747 or the Revell 707, or KC-135

A good pilot

Plastic Sheet in .010", .020", .040"

Solder in 1/32" diameter

Two Paper clips

Soft wire in .002" - .005" diameter

Scotch Tape

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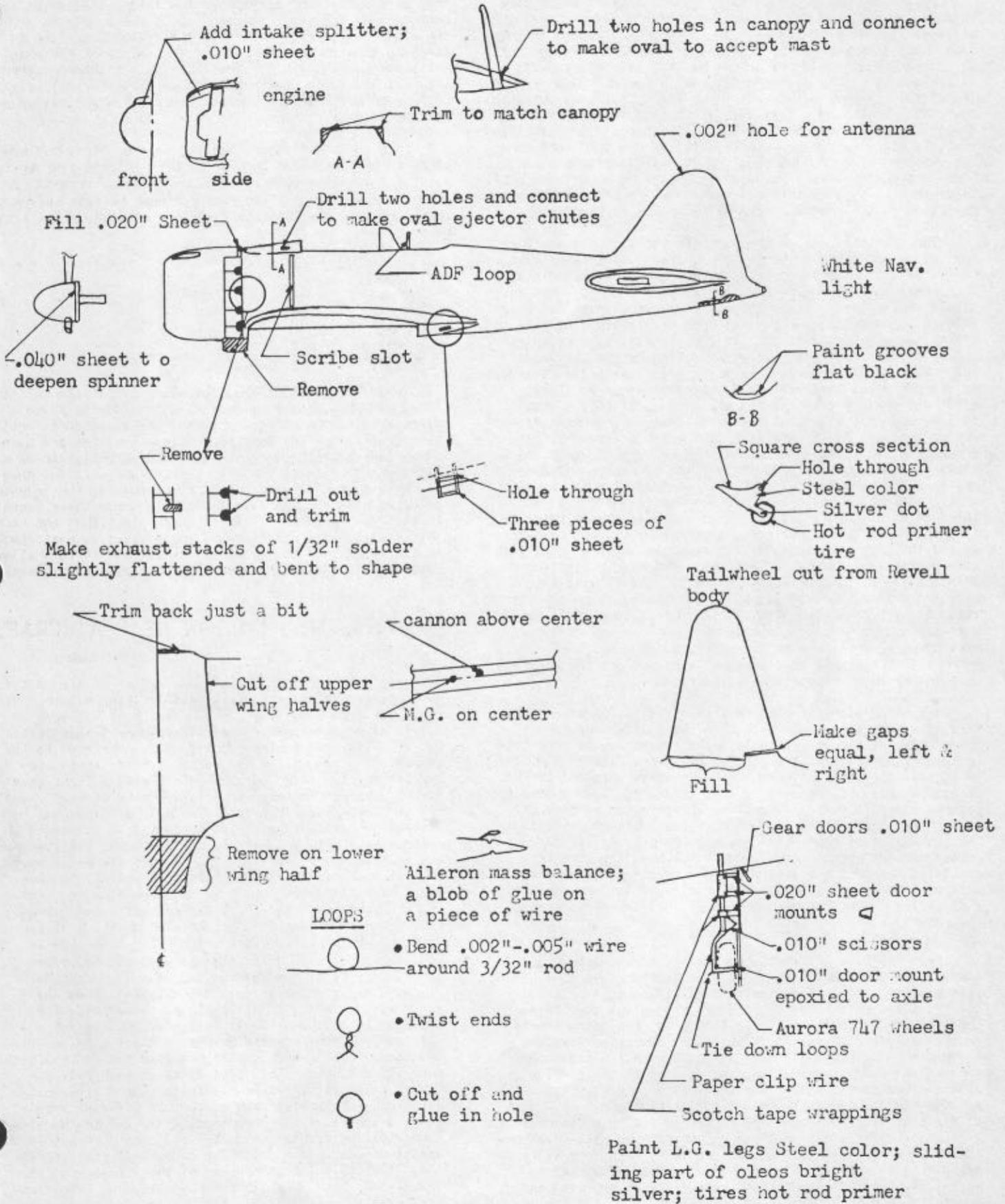
Green, Fighters, Vol. 3

Green, Famous Fighters of the Second World War

Bueschel, Japanese Aircraft Insignia, Markings, & Camouflage

Scale Modeler Magazine, Vol 3 No. 4

cont.



# SUPER DETAILING THE WW II PERIOD AIRCRAFT

- Doug Beagley

These days the reproducing of model aircraft has become an advanced art; many are trying to finish models so that they will bear the look of planes just the way they looked as they stood upon their airfield. It has been apparent from one of our contemporary magazines that some work has been done in this direction, but it is a great pity that as much thought and research has not been put into the subject as has been put into the actual finishing. From what we see one should finish the model in the correct colors and then go around every panel and fleck it with flat white paint. This, we are told, represents the wear and tear brought about by the hardworking mechanics. A close scrutiny of any good close-up picture taken on a WW II airfield will show that this is not a true nor complete representation of the banged around plane we are reproducing.

The wear and tear on the aircraft actually depends much upon the surrounding in which it was used. Aeroplanes that served in the Western Desert sustained much more color fading than those that served in the more temperate zones. But some things were quite general, and could appear on most any model. British and American aircraft all had propellers that were flat black with yellow tips. This was the first area which showed signs of service. It was not long before the leading edges were bereft of paint, and soon after the yellow started to disappear and the bare metal showed through. In fact, after any real service the tip would be completely without yellow, and this wear would continue gradually working its way up the rear of the blades. If the field from which the plane flew was stoney and had much gravel around, soon the blades would become chipped and all the mechanics could do was to smooth out the chips. This combined with the effects of sea atmosphere could really chew away at the propellers. The next areas that showed signs of use were the walkways; it wasn't long before the constant climbing up, on and over by all the various trades left there marks. The wing fillets were particularly prone to this type of damage. Also the wing leading edges soon showed signs of service with the constant friction of the gas hoses being dragged up for the refueling process. How about those chipped cowlings? Some were removed frequently, those around the engines as a general rule; other panels on the fuselage and wings were removed less frequently and, in some cases, unless the aircraft came in for major repairs, were never removed.

What other signs are apparent on our serviced machines? In almost all cases there were signs of oil leakage from the lower sides of the engine cowls. The amount varied from type to type. The radials as a general rule were cleaner than the in-lines. The Rolls Royce "Merlin" variants were one of the finest but oiliest engines. It was a rare day when a "Merlin" powered aircraft would return from an operation without oil streaks far back on the underside of the engine installation. The lower side of the engine cowling would be washed off on occasions, but aft of the fireproof bulkhead the streaks accumulated and dust and dirt was added creating foul black smears. For examples see any clear view of the underside of a "Spitfire". On "Mosquitos" this oil could be seen even on the undersides of the tailplanes.

Much has been written about cordite stains around gun ports, and models have been seen that looked as if they had been used all the days of their existance as test beds for gun installations. They may not have flown but they have certainly fired their guns. In this area great care should be exercised or the result is overdone. Much the same can be said about exhaust stains. Approach with caution, some engines run much cleaner than others. Due to the airflow around other sections of other sections of the structure, the exhaust stains frequently do not streak straight back. Most of all they vary in intensity, so try to get some pictures of at least similar types of aircraft so that you will have some idea of how heavy to go. Some planes have been very sadly discolored by exhaust. In the summer of 1941 I worked on Spitfires that had come through the Battle of Britain, and, due to the number of flying hours that these planes had accumulated and the high proportion of their lives that had been spent at full throttle, the full length of the fuse-

lages were stained black (some exhaust stains are gray) to such an extent that the codes and roundels were fully obliterated, and the serials were barely legible.

What sort of airfields did this plane operate from? If they were muddy, and there were few fields that weren't at some time of the year, then how about the mudstains under the wings and/or engine nacelles? If the plane flew in the European theatre the chances are the inside of the wheel wells were well stained, particularly in fighters where the wing was low to the earth and the wells were rarely cleaned. On twin or multi engine bombers the problem was not so acute but did exist.

This is not all the stain and wear problem, but some ideas to be considered before you whip out the flat white paint and go all around every panel on the aircraft. I would recommend that a study of pictures be made before one starts on this phase of the finishing -- study and a little thought.

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## TECHNIQUES

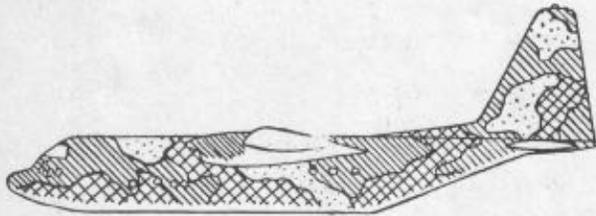
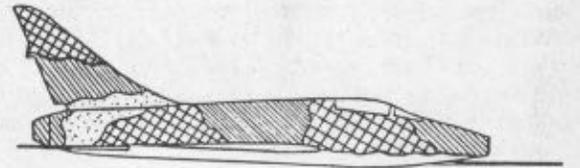
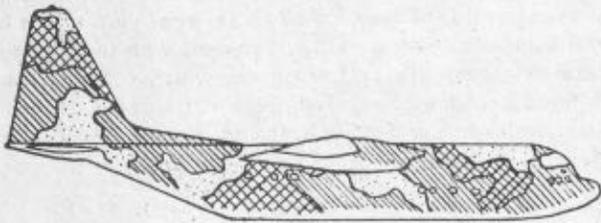
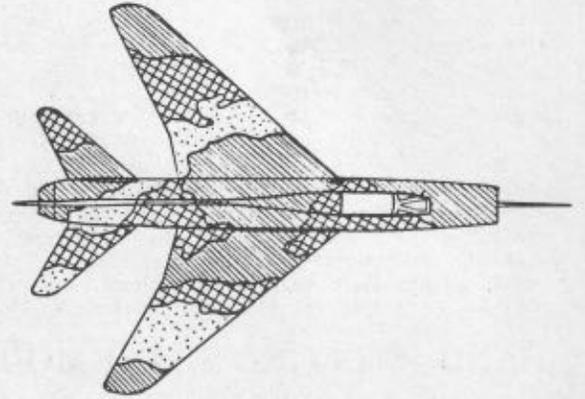
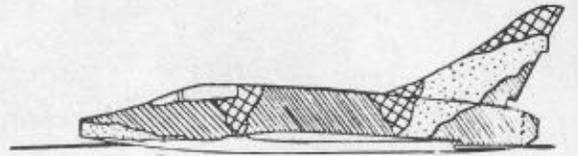
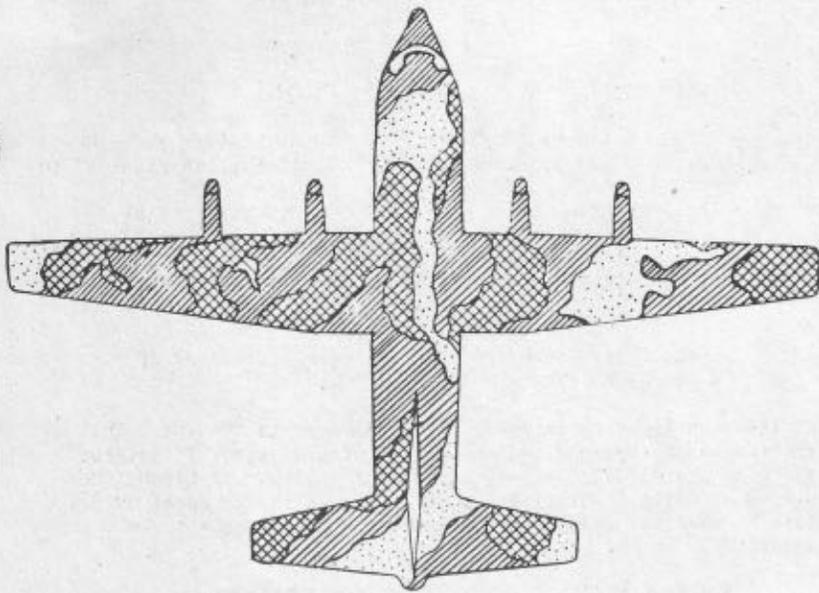
There are several magazines which illustrate the finished products of many modelers, but seldom is there a discussion of the necessary techniques required to build plastic models. The most professional results are obtained by many hours of work and also the accumulation of many different techniques. All successful and skillful modelers have spent a great deal of time studying the techniques of other modelers and have learned to apply these techniques to their own models. It is in this spirit that the newsletter will carry articles and suggestions on basic techniques to enhance the modelers' skills and in turn allow each modeler to produce more pleasing finished products.

## CAMOUFLAGING MODERN USAF AIRCRAFT

- Bob LaBouy

As a painting technique, camouflaging of aircraft has been utilized by almost every nation flying military aircraft. Modern camouflage on U.S. aircraft has several different applications and varies from Naval aircraft's use of white undersurfaces and grey top surfaces to the current practice in the Air Force of using three tone (greens and tans) top surface colors with a light grey (or off white) undersurface color. Until several years ago the camouflage application on USAF aircraft was limited primarily to aircraft operating in the south-eastern Asia area and has had two patterns, the standard and an Asia Minor pattern. In the past few years many regular units of the USAF, AF Reserve and Air National Guard have also been utilizing camouflage color schemes in the United States. The basic authority and instructions for the camouflage applications on all USAF aircraft is given in Technical Order 1-1-4 (T.O. 1-1-4). T.O. 1-1-4 not only describes the whys of camouflage (i.e., deception, concealment and confusion from both ground and air observation), but also describes the materials, colors and markings, and the application and spacing of the national insignia. (Colors for all military purposes are assigned five digit code numbers and those code numbers can be found in the Federal Standard 595 and 595a. The first digit of each Fed. Std. Number indicates the type of finish, for example all color codes beginning with 1 are full gloss, 2 -semi-gloss, 3-lusterless.) More importantly for the modeler, the actual pattern is described for USAF aircraft in a visual diagram. The following camouflage patterns for the C-130 and F-100 are copies of those contained in T.O. 1-1-4, both of which may be applied to excellent kits available from Airfix and Hasegawa/Frog respectively.

cont.



C-130

F-100

-  GRAY No. 36622
-  TAN No. 30219
-  GREEN No. 34079
-  GREEN No. 34102

Now for the techniques. Although these patterns are easily and most effectively applied with an airbrush, they may also be brushed with very effective results. I would suggest that all under-surfaces (both on the plane and its stores) be painted in the light grey (No. 36622). The only notable deviation from the T.O. 1-1-4 is authorization for the Strategic Air Command (SAC) to use black (No. 17038) on the bottom of B-52 aircraft. This use of black has also been seen on the F-111As flying from Nellis AFB. On the upper surfaces the lightest colors should always be applied first; the tan (No. 30219), then O.D. green (No. 34102) and then dark (or shadow) green (No. 34079) as the final coat. Although the paints are applied with a spray gun in actual usage and this effect is easily obtained by the use of an air brush, very pleasing results can also be obtained with hand brushing. Care must be taken, however, not to build up too large a layer of paint because the resulting ridge of paint will show through subsequent layers. One of the factors which makes modern camouflage patterns comparatively easy is the fact that even the actual planes sometimes vary considerably in their patterns. Although T.O. 1-1-4 illustrates and suggests the actual patterns,

in practical application there are often many variances in the paint scheme (often a wavy demarcation line will be seen between the upper surfaces and the grey undersurface while a relatively straight line may be seen on the next aircraft). Most often the only camouflage patterns which closely follow T.O. 1-1-4 are those applied at the aircraft factories or at major repair facilities.

Quite often modelers will question the colors on camouflage aircraft they have seen in static displays, slides or magazine pictures. Generally colors will vary from one plane to another depending on the amount of weathering, sun bleaching and touch up painting, all of which tend to make the standard colors vary considerably. As a practical matter in actual usage, touch up or repair paint jobs may be made with mixtures of what ever colors are available to the crew chiefs (this is a habit not unique to the Viet Nam operations and has accounted for many different and distinctive color schemes). Color pictures often tend to distort colors; this difference can most often be seen when comparing a slide and a color print made from that slide. Observation has taught me not to doubt any color scheme modeled.

I offer the following suggestions as acceptable paints and mixtures to be used in camouflage models using readily available paints:

| COLOR        | FED. STD. NO. | PACTRA             | HUMBROL     | POLLY S  | FLOQUIL  |
|--------------|---------------|--------------------|-------------|--|--|
| Grey         | 36622         | Cam. Grey M13      | Grey HU. 10 | 40 pt. White PF 11<br>2 pt. Night Black PF 10      | 40 pt. Reefer White RR 11<br>2 pt. English Black RR 10 |
| Tan*         | 30219         | Light Earth M-18   | Tan HU. 9   | Khaki PF 60  | 10 pt. Earth RR 81<br>2 pt. Rust RR 73                 |
| Olive Green  | 34102         | Artillery Olive M7 | Green HU. 8 | Olive Drab PF 52                                   | Depot Olive RR 44                                      |
| Shadow Green | 34079         | Forest Green M5    | Green HU. 7 | 1 pt. Grass Green PF 51<br>2 pt. Night Black PF 10 | Coach Green RR 48                                      |

\* As a note, I have found from personal observation that this tan lightens in color under exposure to the sun. This "weathering" generally accounts for the light tan witnessed in photographs and on various display aircraft painted in current camouflage paint. The lighter shade of tan (Fed. Std. 30257) is best approximated by use of Floquil Mud (RR 83), Pactra Mustard (M-21), Humbrol Mid Stone (HB-12), or Polly S Desert Brown (PF 63). As in the cases of all paint suggestions, each modeler should test these colors by whatever method you use before applying them to your model. Do not accept these suggestions as the only solutions.

## HAND PAINTING SHARKMOUTHS Terry Moore

## JAPANESE COLOR SYMBOLS-Bob LaBouy Nabe Watanabe

Although there are many decals on the market with sharkmouths; the majority of them would not fit an aircraft model other than a P-40 as the majority of decals are for that plane. There are no sharkmouth decals for an A-7D "Corsair II", Blenheim IV, or HS 129, and many other aircraft. The only thing left to do is to hand paint one. Here is a basic idea of one way to do the job.

For the many members who have been constructing the various excellent Japanese kits for several years and have wondered what all of those little symbols are in English, I would like to submit the following summary. The translation has been provided by a Japanese engineer, "Nabe" Watanabe, who is currently living in Seattle.

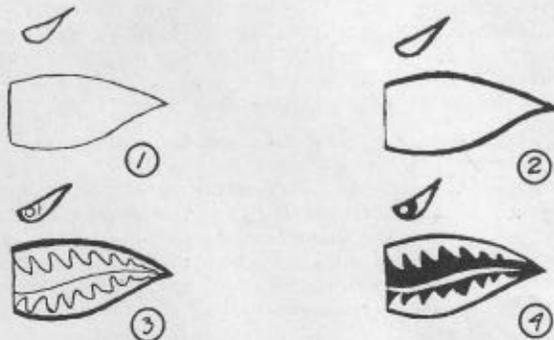
**Step 1.** Lay out the design on a piece of tape -- Scotch magic mending tape works well. Cut out the shape of the eye and the mouth and place the stencil on the model. (It is best to do it after the model has been painted.) Spray the area with white (Floquil white is good for this). After it has dried, remove the tape.

|                |                             |     |                    |
|----------------|-----------------------------|-----|--------------------|
| 白              | White                       | 赤   | Red                |
| 黒              | Black                       | 茶   | Brown              |
| 銀              | Silver                      | 銀灰  | Aluminum           |
| タン             | Tan (Light Brown)           | 黄   | Yellow             |
| グレー            | Gray                        | 緑   | Green              |
| ライトガルグレー       | Light Gull Gray             | 灰   | Grey               |
| ガルグレー          | Gull Gray                   | 明   | Light              |
| ダークグレー         | Dark Gray                   | 暗   | Dark               |
| ライトグレー         | Light Gray                  | 黄   | Yellow ✓           |
| オレンジ           | Orange                      |     |                    |
| オレンジイエロー       | Orange Yellow               |     |                    |
| インターナショナルオレンジ  | International Orange        |     |                    |
| フロート全面オレンジイエロー | International Orange Yellow |     |                    |
| 艶有             | Shiny, Polished             | つや消 | Matte              |
| 艶消し            | Grimy                       | 鉄サビ | Burnt Metal (Rust) |
| 半艶消し           | Dirty                       |     |                    |
| ダークグリーン        | Dark Green                  |     |                    |
| グリーン           | Green                       |     |                    |
| オリーブグリーン       | Olive Green                 |     |                    |
| ジंकロ           | Zinc Chromate Green         |     |                    |
| 青              | Blue                        |     |                    |
| 全面銀            | All Silver                  |     |                    |

**Step 2.** If the sharkmouth requires it, paint an outline around it in the color required. Do the same with the eye. Use a very small brush and work slowly.

**Step 3.** With a draftsman's 6H pencil or another hard lead pencil, outline the shape of the teeth, the tongue and the eyeball on the painted area.

**Step 4.** Carefully paint the colors in the mouth and eyes, red first then the other color. Do the same with the eyeball. If the two colors are separated by a white line, cut out a thin piece of tape and apply it over the white area before painting the mouth colors.



T.P. MOORE 3/71

~~~~~

|    |       |   |       |
|----|-------|---|-------|
| 色  | Color | 左 | Left  |
| 又は | Or    | 右 | Right |

# BOEING 299 CONVERSION

FROM

AIRFIX B-17G

by  
Terry Moore

**Note:** The first two pages of this article originally appeared in Vol. 1, No.2 of JETSTREAM the privately owned predecessor of this newsletter, and is reprinted with the kind permission of JETSTREAM'S owners Gerry Nilles and Larry Buettner.

Before you start this conversion make sure you study the instructions and diagrams well. They are NOT in step by step order. It also would be to your advantage to have photos of the 299,

## PARTS USED:

1/4 Mono. SB2C stabilizer  
1/72 Rev. Oscar Canopy  
1/72 Rev. Lancaster landing gear  
1/72 AF. B 29 top gun sighters blister  
1/4 Mono. F4F Fuel Tank

## WINGS: Dia. 1

Assemble the wings per plan. Omit landing gear, and remove part of well to make larger. Fill all areas indicated. Make sure that these fill areas are sanded well so as to give a smooth contour.

## Horz. Stabilizer: Dia. 2

Use kit stabilizer. Cut to shape indicated. Again smooth to a good round leading edge and sharp trailing edge. ( see Dia 11 for cross section)

## New Windows: Dia: 9, 11

Add new windows as indicated. Placement is the same on both sides.

## Props: Dia. 5

Thin the prop blades as shown. Remove hub and small nubs which are on the shaft between the blades.

## Landing Gear: Dia. 6

The landing gear, in this case has been constructed from cut down Lancaster gear. Yet it is simple enough to be built from scratch.

## Vert. Stabilizer: Dia 7

The Mono. SB2C Horz.stabilizer is used here. It is cut down as shown. You must add a new hinge line, removing the old. You also have the lower part of the rudder to add too.

## FUSELAGE: Dia. 3, 4

Cut and fill as shown on these two diagrams. Be careful too, cut 1/16" in front of ball turret area. Filling at this point is extensive. Make sure you regain the contour left by the removal of major molded areas. At this point add the new tail cone ( see Dia. 11) Use Monogram Wildcat fuel tank. Again fill as needed. When working on nose section (Dia. 3) Make sure you do not fill upper nose window, but do fill the areas left by the removal of the small astrodome, top turret, and the other nose windows. Now comes the most important part of this conversion. When you rejoin the the two sections of the fuselage, Make sure that the rear section has been rotated 180 degrees .

See dia. 11 ( dotted line area ) for new position of ball turret opening, which is now on top

## Bombardier Area: Dia. 9, 10

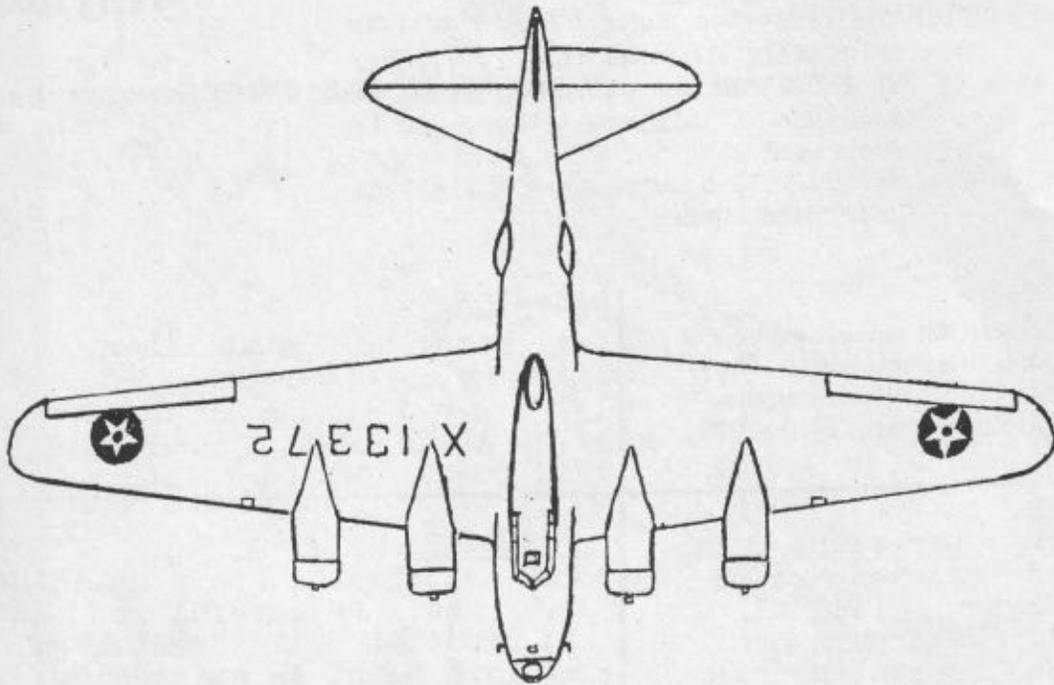
Construct this area, of sheet plastic . If possible use photo to give better understanding of the shape of this area.

## Nose, and Turrets: Dia. 8, 11

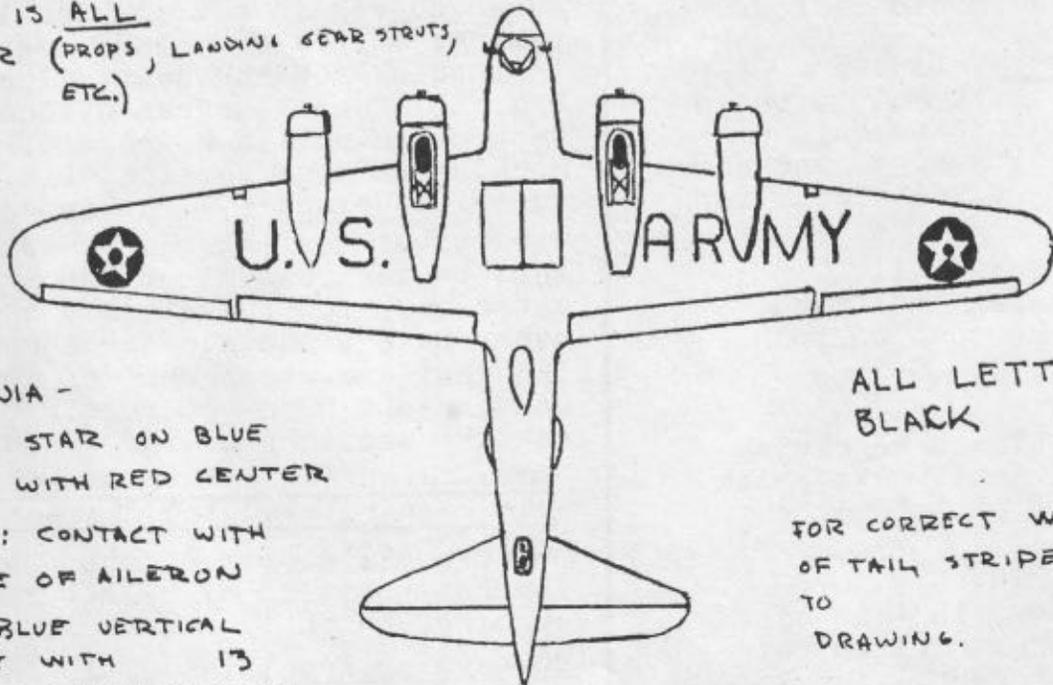
Use kits clear nose. Drill a 3/8" hole where the triangular panel is. Glue the B-29 blister over this hole. Paint ribs as shown. Turrets are made from Rev. Oscar canopies. Sand off ribs, polish to a clear finish, and then paint on new rib pattern

# FINISH AND MARKINGS -- BOEING 299

- Model by Terry Moore



FINISH IS ALL SILVER (PROPS, LANDING GEAR STRUTS, ETC.)



### INSIGNIA -

WHITE STAR ON BLUE FIELD WITH RED CENTER

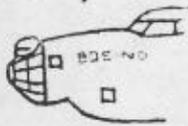
NOTE: CONTACT WITH EDGE OF AILERON

TAIL: BLUE VERTICAL STRIPE WITH 13 RED AND WHITE STRIPES (7 RED, 6 WHITE)

ALL LETTERING BLACK

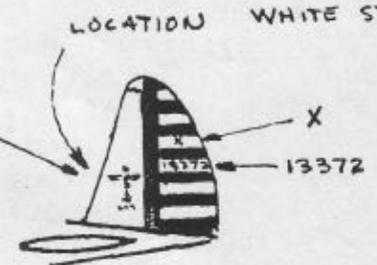
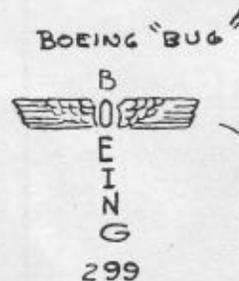
FOR CORRECT WIDTH OF TAIL STRIPES REFER TO  $\frac{1}{72}$  ND DRAWING.

SERIAL NO: 3RD AND 4TH WHITE STRIPES

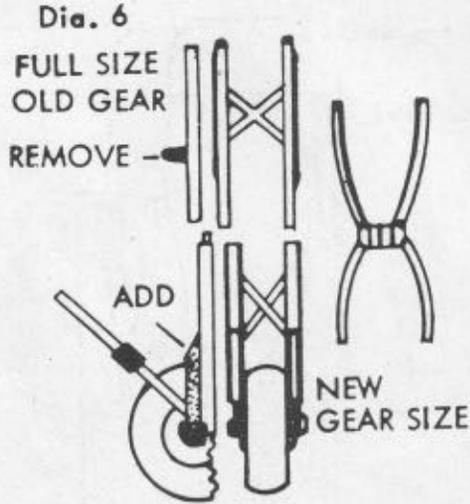
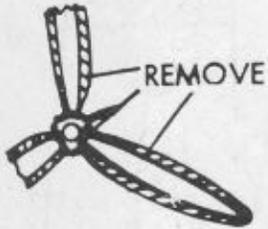


← LOCATION (BOTH SIDES)

NOT  $\frac{1}{72}$  ND

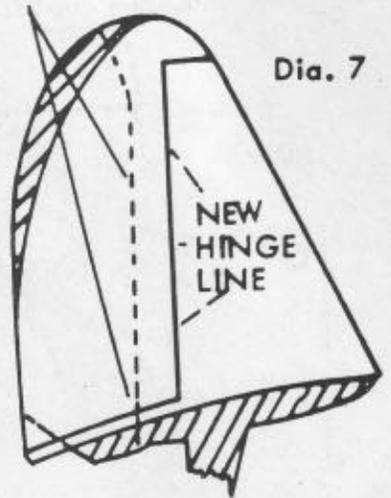


Dia. 5 REMOVE

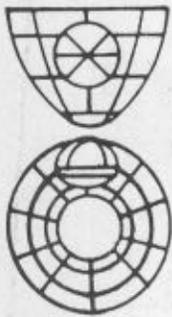
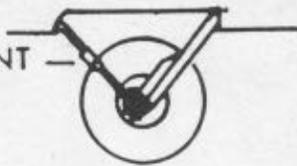


OLD HINGE LINE

Dia. 7



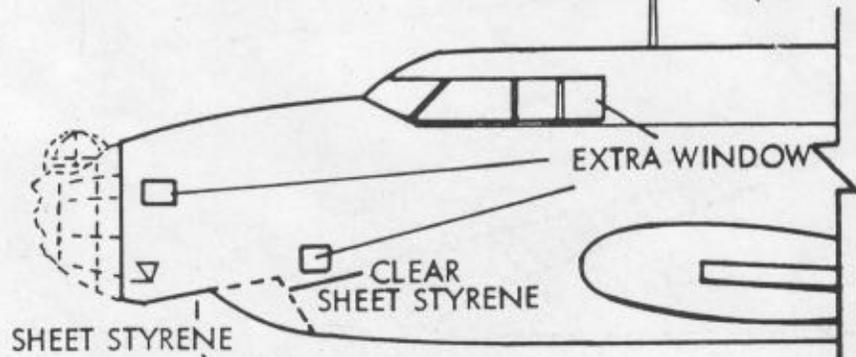
GENERAL ARRANGEMENT (not to scale)



Dia. 8



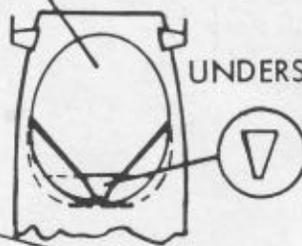
Dia. 9



Dia. 10

UNDERSIDE OF NOSE

WINDOW



Dia. 11

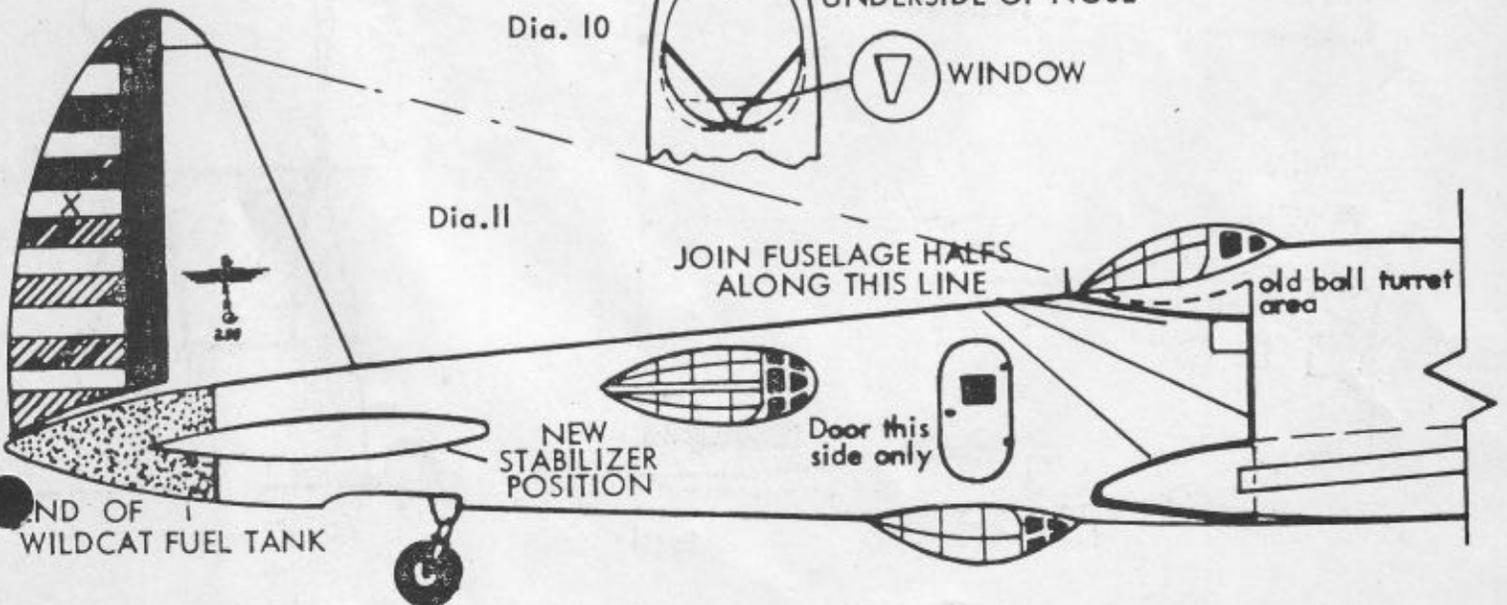
JOIN FUSELAGE HALFS ALONG THIS LINE

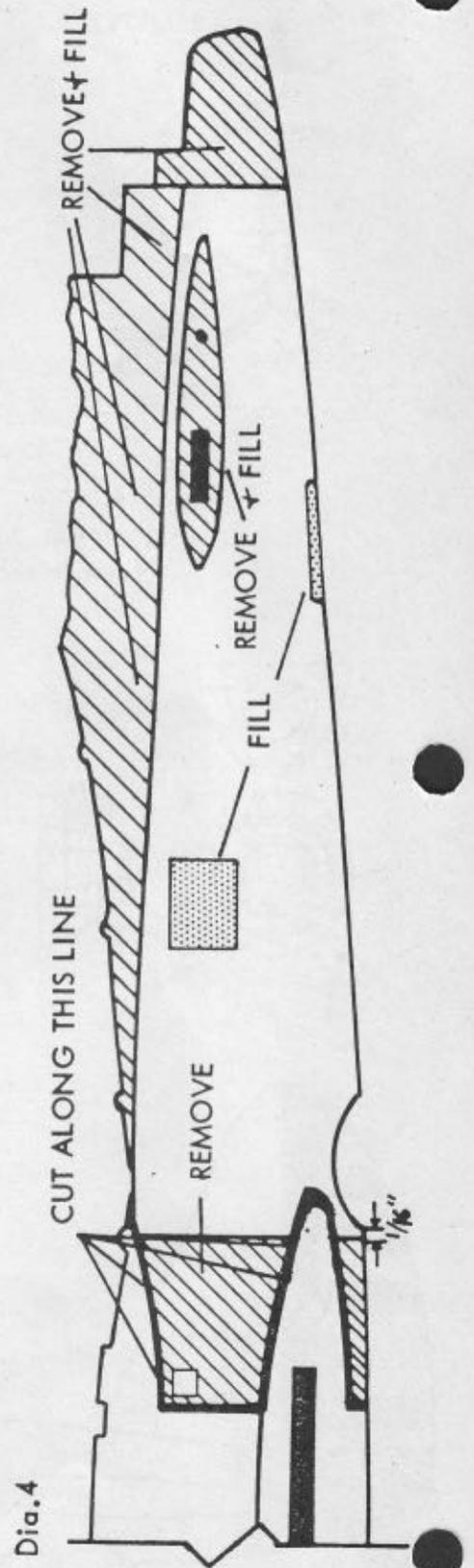
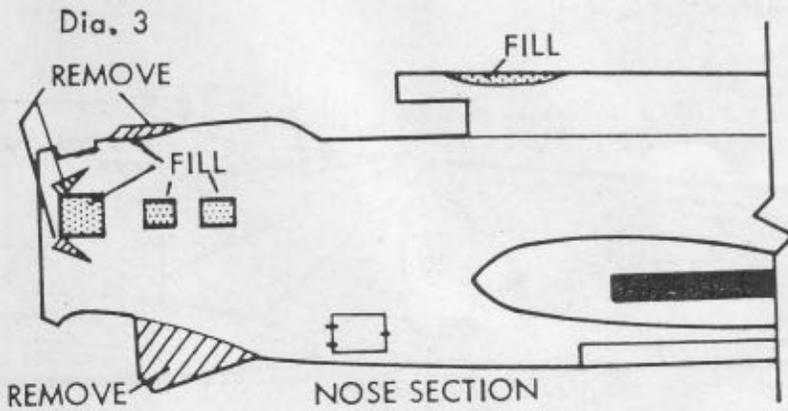
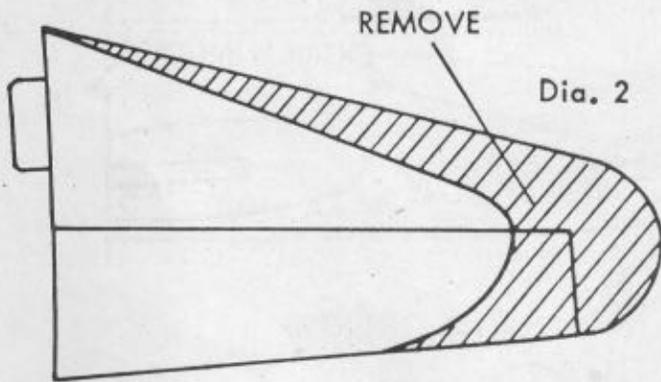
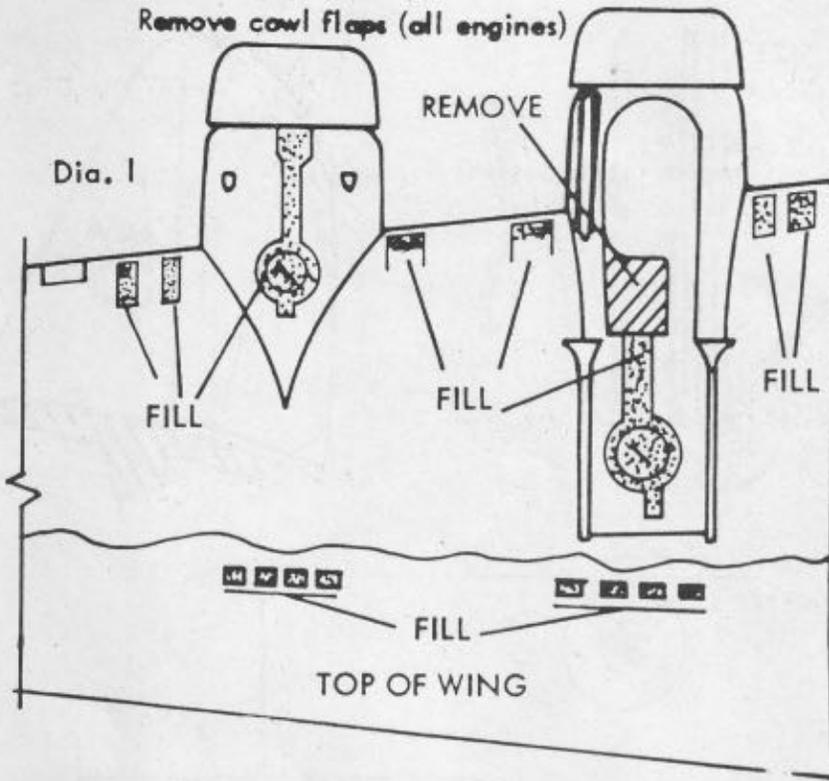
old ball turret area

NEW STABILIZER POSITION

Door this side only

END OF WILDCAT FUEL TANK





# MIKE GLADYCH, A POLISH FIGHTER PILOT - John Schaaf

I thought it about time to put into print some of the facts I've been able to piece together this past year on one B. MICHAEL GLADYCH, a polish fighter pilot who flew in combat from the September 1939 invasion of Poland until he said his formal goodbye to the 56th Fighter Group's 61st Squadron on August 20, 1945 (He'd been with them approximately 18 months).

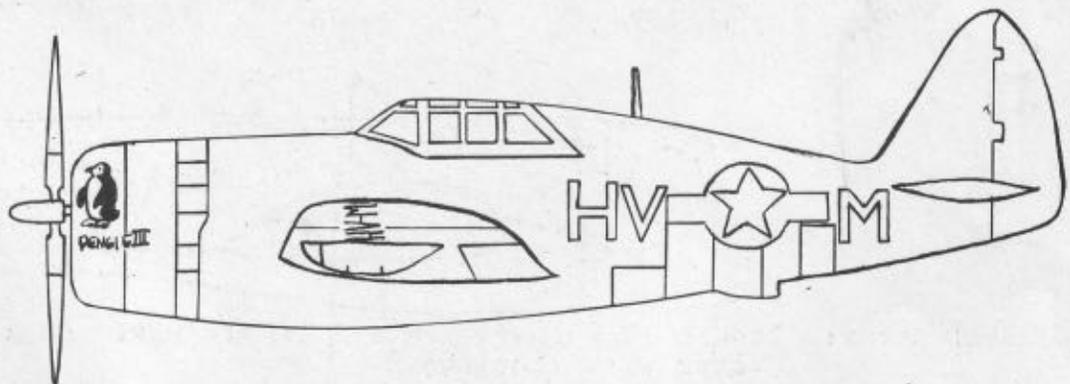
Mike is a very quiet, milk<sup>d</sup> mannered guy. You'd never suspect he is the same one his buddies in the 56th referred to as "The Killer". He tells me that 47 is the number of aircraft he downed during all his combat years. He probably has more, but he only counted those he saw crash. He doesn't like to go into detail about his exploits. Who can blame him? He has, however, given some marking information for some of the aircraft he flew.

POLAND: P.Z.L. P-11's. Mike doesn't remember individual markings of aircraft he flew as he took what was available. He did, however, fly in 111 & 114 Squadrons. The colors as shown in Profile #75 looked good to him.

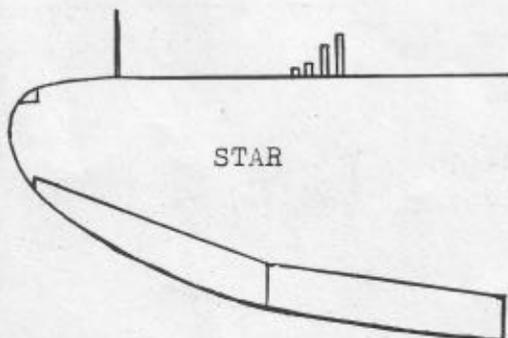
FRANCE: He can't remember anything about markings here. He flew Caudron's.

R.A.F.: Here, Mike's flying began with the Battle, flying Hurricanes of the Polish 302 Squadron. He remembers one with the letters WX V. Polish flag centered under exhaust ports - both sides. Next, he flew Spitfire Mk II's with 303 Squadron and remembers one aircraft with the letters RF V. Polish flag same as above. Spinner, stripe and under-sides were Sky Type S. Mike went back again to 302 Squadron, flying Spitfire IX's; no recollection of markings of these.

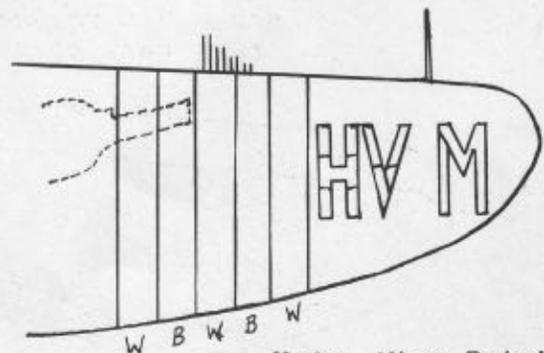
U.S.A.A.F.: Mike flew here with the 61st Squadron, 56th Fighter Group. His aircraft were all marked HV M. He flew five Jugs during his eighteen month tour with them. He tells me the first two (razorback version) were the standard OD upper surface and gray under surface. The call letters on these aircraft were white. His third aircraft was natural metal overall and had invasion stripes underneath only. Call letters were black here. All three of these birds had a penguin painted on the port side in the red painted area of the cowling. The aircraft name "Pengie I, II, III" respectively appeared below in white letters. (See Figure 1)



Penguin:  
Coat - black  
Vest - White  
Beak & Feet - Yellow



Upper Wing Detail



Under Wing Detail

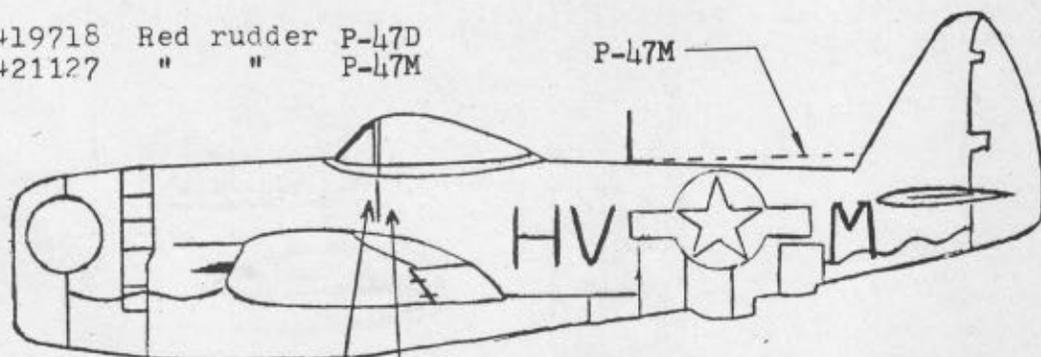
Approximately 1/72 scale

Mike's number 4 & 5 aircraft are the most interesting because of their unique coloring and that he has complete marking information for both of them.

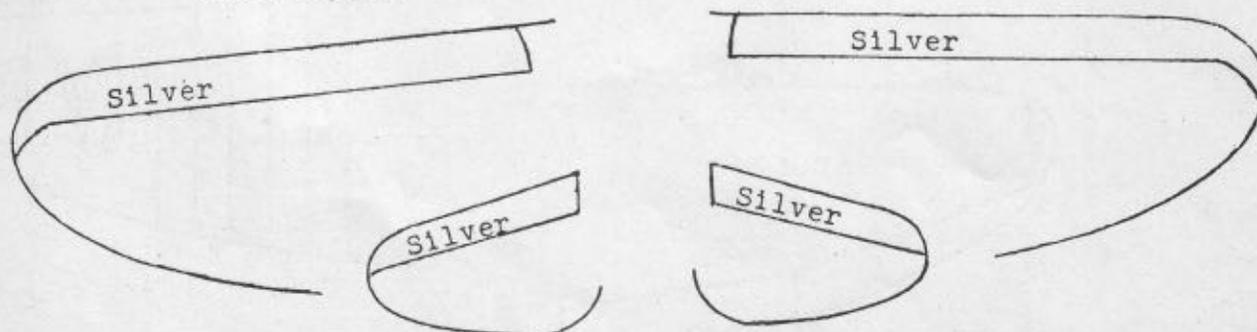
PENGIE IV came on the scene not too many months after "D" Day according to Mike. The penguin is the same but the background is a red circle,  $\frac{1}{2}$  of which extends past the red painted cowling. The victory marks (twenty-six as shown on diagram) are red with white outlines. I've been able to make them from Authenticals #5, decal 17. Lower port wing has stencil-type HV M in black in lieu of the star. Marking in front of victory crosses is a yellow figure of a man. In front of that is the name plate in red. Serial numbers on the tail are red stencil-type (A.I.R. #15). The upper surface is midnight blue which can be mixed using Floquil's black with a not-too-dark blue added. It will look black until you get it in outside light. This coloring will stir up a lot of arguments because there are many modelers around the country who claim that the 61st painted their Jugs black. Mike Gladych says his was the first plane to be painted this color and that some of the rest of the squadron followed suit when the worst of the hostilities were over. He also has a model of his number 5 bird, made in 1945 at the base, and painted this shade of blue to prove the point. The lower surface is Floquil's Great Britain Sky Blue with silver for the belly tank. Two versions of this aircraft can be made. The differences are the color of the windshield frame, and the penguin insignia. When he first flew the plane, the windshield frame was natural metal. Later, when time permitted, it was painted midnight blue, and the penguin (as earlier described) was added. The name Pengie IV is in white lettering; HV M on the fuselage is red with a white outline. (Can be made with Micro Scale sheet #72-38. Cut out letters and put them on Stoppell white. Let dry several days, then cut out leaving white outline.) Upper surfaces were waxed, so put a glow<sup>ww</sup><sub>55</sub> finish on for authenticity.

PENGIE V: This was a sprint version as you can see from the diagram. The penguin is on a medium blue background circle half of which is off the red painted cowling. The stars have a medium blue outline. Serial Number is the same color as on Pengie IV. The lower surface is natural metal with the line breaking on top of the wing and tail surfaces as shown.

Serial #: Pengie IV 419718 Red rudder P-47D  
 " V 421127 " " P-47M



Kill Marks: Pengie IV=6 rows of 4 & 2 in 7th row. Back edge of row is even with line shown  
 Pengie V=5 rows of 5 & 1 in 6th row. Put leading edge of rows back of line shown



In front of the kill marks is the yellow man figure mentioned earlier

MODEL REVIEW -- FOKKER DR.I TRIPLANE - Jim Schubert

Revell 1/27: Really great, only the underside of the mid-wing/body joint needs tidying and the cowling needs thinning to get closer to scale sheet metal thickness.

Aurora 1/43: Pretty good, once you remove all of the horrible raised surface detailing; including the wheel spokes.

Airfix 1/72: Mediocre to poor, the main body is its best feature. If this is substituted for Revell's 1/72 main body the Revell 1/72 can be made into an excellent model with little effort.

Revel 1/72: Pretty good, and the best base for an excellent 1/72 model. The body cross section from the cockpit forward is hopelessly wrong. It can be filled and filed, but it's quicker to substitute the Airfix 1/72 body. Also use Revell Fokker D VII wheels to replace those misshapen unfortunates supplied in the Dr. I kit. Note that the kit depicts one specific Dr. I with mismatched aileron -- pick the one appropriate to the airplane you are modelling and correct the other aileron to match.

Bachman 1/90: Pretty good: it's ready built, but if you take it apart and use it as a kit you can build an excellent model.

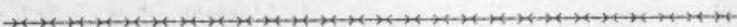
References: *Profile #55*: some very useful photos, but take the color schemes with a grain of salt.

*Airfix Magazine*: July, August, and October 1969; an absolute encyclopedia

References: *Profile #55*: some very useful photos, but take the color schemes with a grain of salt.

*Airfix Magazine*: July, August and October 1969; An absolutely encyclopedic three part article, well illustrated. Note: you must read the errata at the end of the third part because there are some significant changes especially re the color separation line and the forward body surface appearance.

Those two references will do. However, if you've lots of money buy the Harleyford book, *Fokker - The Man and His Airplane*. The Revell 1/27 kit is itself a very good reference for the others.



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DORNIER CONVERSIONS BY AIRMODEL - Mike Quan

The latest conversion kits from Airmodel in Germany consist of the Do-17P-1 and Do-217K-1. The kits basically consist of a clear forward fuselage, molded in halves. What's more, a complete set of decals which are very good, is included with each.

The instructions are easy to follow, and complete color schemes and drawings are included. The Do-217K-1 kit has the large, bulbous cockpit nose which is grafted to an Airfix Do-217E kit. The markings are for the commander's aircraft of /KG 2 in mottled grey upper and black lower colors. The Do-17P-1 kit represents a night reconnaissance bird used in Russia, in an unusual scheme of white upper and black lower. The basis kit is the Monogram Do-17Z. The squadron emblem on the decal sheet deserves an award as it is one of the most beautifully detailed Luftwaffe insignia I've ever seen.

The forward fuselage halves in the conversions are molded to a rather extreme thickness, and the fact that the fuselage seam runs through the clear nose windows doesn't help the finished appearance. The width of the Do-217K-1 nose is also too narrow. In spite of these drawbacks, these conversions offer the Luftwaffe modeler an unlimited number of Dornier conversions.

\* \* \* \* \*

Bf109 MARKINGS - Eden Harriss

The following was copied from a U.S.A.A.F. Intelligence report on captured aircraft.

"Bf109G-6 (North Africa) Werk No. 10306. Black 6 outlined in white ahead of cross with black and white squiggle behind; spinner - white, wing tips white. Cowl bottom yellow, under-surfaces pale blue."

"Bf109G-14 (France 1944) Werk No. 413601. Light and dark gray upper, lower in light blue, sides of body mottled in gray and green. Black 7 with yellow outling."

"Bf110G-4/R-3 (France 1944) Werk No. 11047. C9 + BK - gray B outlined in red, red B on nose; upper surfaces, sky blue mottled with gray; sky blue undersurfaces. 4 Fug. 220 radar antennas on nose; spacing 54" horizontal and 59-1/2" vertical. Antennas measured 45-1/2" from tip to tip, 21" in length to insulated section and are 23-5/8" apart."

Admittedly these leave a few questions unanswered but I am sure that a wide awake modeller can work it out.

\* \* \* \* \*

FROG P-51A KIT REVIEW - mike quan

Ever wonder what a Fron version of Monogram's 1/72nd scale P-51B Mustang would be like? Well, you can stop guessing because Fron's P-51A Mustang is out. Construction is almost identical to Monogram. In all honesty, it is unfair to compare the two. Judged by itself, Frog's Mustang is quite a good kit. The fit is improved over Frog's Tomahawk (reviewed two issues ago), especially the good wing-fuselage joint. The canopy is typically Frog -- slightly thick, but the Monogram canopy fits with some filing of the fuselage.

The two most glaring errors of the kit are the huge DZUS fasteners on the cowling, and the incorrect belly radiator scoop. The former can be remedied by some sanding, and to fix the latter, the upper lip of the airscoop should be carefully removed and the sides of the scoop flaired into the wing with putty. On Allison-Mustangs, the upper lip of the belly scoop was the underside of the wing.

The landing gear covers and pilot seat are virtually Monogram twins and they represent a new high in detail for Frog. The decals as usual look beautiful, and they're for a P-51A flown by Phil Cochran in the CBI theater, and a British Mustang Mk II in D-Day markings. For extra realism, drill out the wing guns, drill out shell ejector chutes, and scratch the radiator exhaust door. Now if someone will come up with a decent P-51D. . . . .

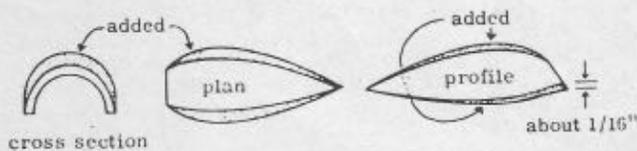
1. Do your homework! Before starting work on a kit model, know what model and mark you want to do. Decide which airplane, of which unit, flown by what pilot you want to do. Know that you have the tools and skills to apply the finish and markings needed. If your bird has a personal or other marking not available from a decal sheet, figure out how you are going to do it. A lot of guys have come to me and asked me to paint a name, word, or emblem for them after they've finished a model save for that one little bit. PLAN AHEAD.

2. More homework. Check the dimensional/proportional accuracy of your kit before you start; figure out how you are going to correct dimensional overages or shortages, inaccuracies of outline and placement. For example: the Hasegawa SOC-3 Seagull kit is actually of an SOC-4 of which only three were built. The -4 has flaps on both wings; the -3 only on the top - so you have to fill in the flap outlines on the lower wing. Also, the lower wing doesn't fit quite square on the body, and, as the top wing aligns with the bottom, you'll wind up with both wings out of square unless you fudge the fit of the lower wing to square it up. To continue with the Seagull, the assymetric prop provided is wrong and should be replaced with a symmetrical prop (as from a Monogram F4B-4 or F1C). Further, the tires (on the landplane) are too skinny, and the hubcaps are wrong. The two wheel pants are also mishapen; Aurora 747 wheels used inside out can be adapted to suit here very nicely, and the pants can be filled and filed to correct shape. The wind-screen portion of the canopy is also mishapen and needs to be filed and polished for correction.

Have I made my point? Do your homework!

3. Canopies: On the Seagull example, correction is easy - all you need to do is to file the two side panels of the wind-screen into flat planes from the compound curves provided. To do this (or similar conversions) first file the canopy to the desired shape - mark off areas you don't want to mar with a couple, or more, thicknesses of masking tape. Dress with a finer file; finish with progressively finer sandpaper down to the finest wet-or-dry you've got. Now rub each panel for at least one minute with auto rubbing compound. Clean. Rub each panel for a minute with auto cleaner. Clean. Rub each panel for a minute with a plastic window polish. Clean, and there you are - back to beautiful crystal clarity. If not, repeat the applications of plastic polish. I use Johnson's rubbing compound and cleaner and Mequires plastic polish. The plastic polish is sold in auto parts stores such as Schucks for cleaning the rear windows of convertibles and at aircraft parts houses - like Spencer Aircraft - for cleaning airplane windows. I use these two brands simply because they are what I already had, other brands will certainly work as well.

If the kit's canopy is too bad, as the canopy on the Airfix MIG-15, use it merely as a base upon which to build a male mold for vacuum forming. First, fill the canopy completely with Green Stuff, or equivalent. This strengthens it for handling, makes it easier to see what you're doing, and acts as a heat sink for the vacuum forming process. Now determine the correct profile, plan and cross section of an accurate canopy. Add Green Stuff or equivalent to make up shortages, and file away any overages. On the MIG-15 for example:



Dress and polish this down to a nice smooth finish, and carefully pencil on the canopy framing as a painting guide for later. Support this male mold about a 1/4" to 1/2" above the deck of a Mattel Vac-U-Form or equivalent so that the plastic sheet being formed can pull down snugly all around the mold. (Ed: the Mattel Vac-U-Forms are again on the retail market and available in this year's Sears Christmas Catalogue, priced at about \$7.00.)

Note:

Jim's article on building 'ready to build' kits will be con't. in the March '71 Newsletter and will supply additional hints and tips for all you pithcanthropus all-fingers types out there.

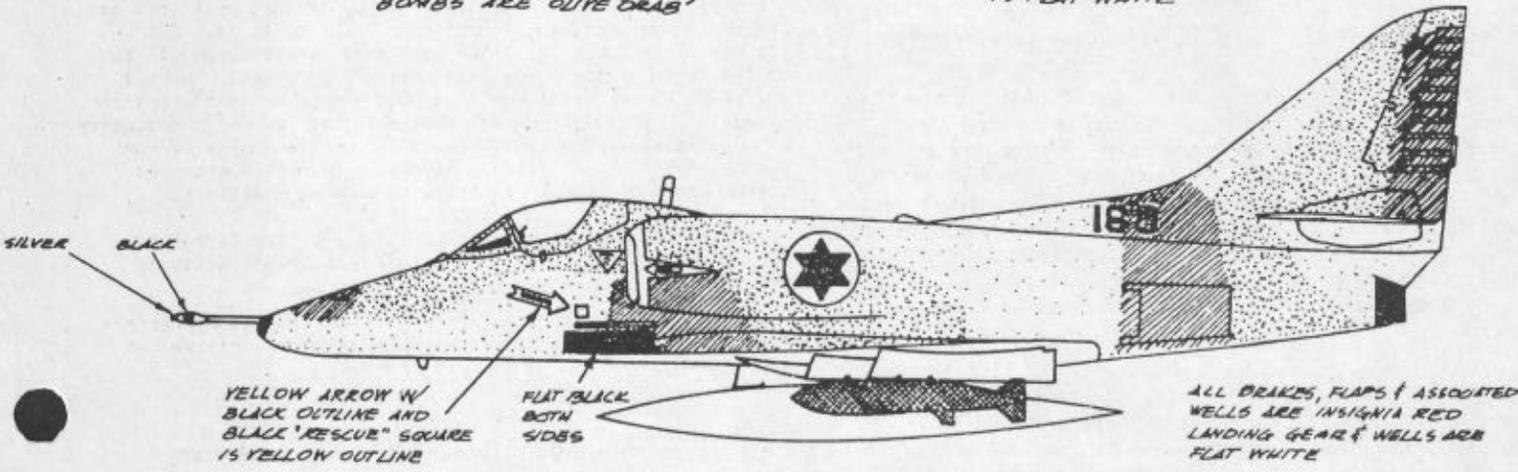
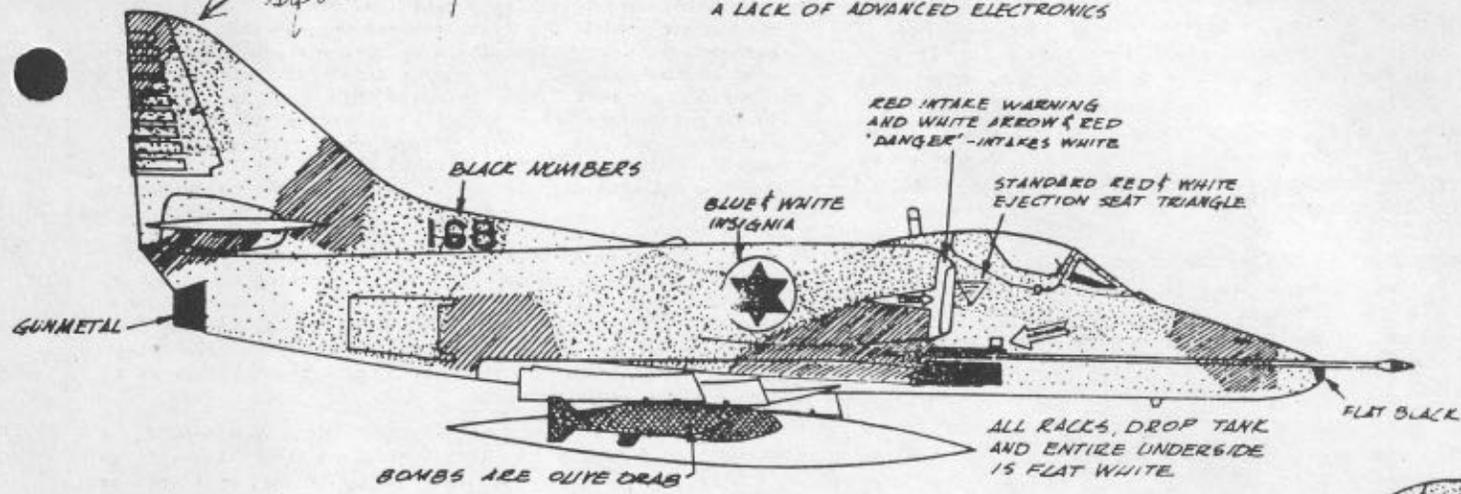
WHY? - Jim Schubert

When I was first requested to write a piece for this letter I was undecided about what to do. I could do an article on the "stock" conversions I've been building, but then who besides me is really interested in accurate Zeke's, P-26's, Phantom II's, Boeing prototypes of the 30's or what's really wrong with the new Hasegawa SOC-3 Seagull (apart from the fact that it is actually an SOC-4)? No, I had to go deeper. What's it all about? Why do we build models - of anything? I'm sure the eighty or so members of our local group have eighty or so reasons. Basically all reasons boil down to the same essence - enjoyment. Enjoyment exists on many levels of appreciation. The greater the appreciation, the greater will be the enjoyment. Appreciation, of anything, is enhanced by understanding. How many people who say "I hate classical music", really understand it? They don't actually hate it of course; they're uneasy with it because they don't understand it. Most of the 200 million U.S. citizens put us down as boys playing with "toys" - the same with the model railroaders, the radio control airplane/boat/car builders, stamp collectors and coin collectors. Don't let it bother you. Get into your hobby or hobbies, wring them dry. Understand their background, origins, relevance to history, etc. Say you build static display models of planes. They will mean more to you and be far more enjoyable if you understand why the real airplane existed; why it was built the way it was, how and why it was used, why it was painted a particular scheme, how all the bits and pieces worked, and how that all related to a justification of its cost at a particular time in history. Back to the Zeke for an example. It was built in great secrecy, by an emerging 20th century power not quite out of its late blooming fuedal period, to better the best the rest of the world then possessed or even had in the planning stage. It was all brilliant offense - light, fast, highly maneuverable, heavily armed, long ranged - and no defense. It didn't really need any defense because it was the best in the world at that time in history (late 30's and early 40's). But this still too rigid, near fuedal society that had created it couldn't move quickly with changing circumstances, and by inaction and equivocation reduced the Zeke in the mid and late 40's to a pitiful image of its original self by continuing it in production long after it should have been superseded. The Western powers changed everything - the East didn't. The Zeke of the thirties, unarmoured, with light spindly undercarriage designed for use off smooth well prepared surfaces, was forced to operate off rough coral strips against, by then, far more heavily armed and armoured adversaries, and was found sadly wanting. The tables had been turned and the Zeke was to the Hell cat, Corsair, Mustang, and Spitfire as the 1-15, 1-16, P-26, P-56 etc. were to it in its heyday. Read Saburo Sakai's autobiography *Samurai* for an appreciation of the Zeke, or read Pierre Closterman's *The Big Show* for an appreciation of his Tempest, Typhoon, and Spitfire. Find out why the Typhoon had that wry comment about putting out the fire stenciled on its cowling. Find out what a marvelously complex piece of machinery its H-24 cylinder Napier Sabre engine was. Do you like the beautiful lines of the Mac Castoldi MC-72 seaplane racer? Dig in and study it and you'll come to like it even more. It's wild. Its V-24 cylinder Fiat engine was something to behold. Do you get my message? Understanding is the key to appreciation. Appreciation is enjoyment. Enjoyment is why we build models.

# A-4J OF THE ISRAELI A.F. \*

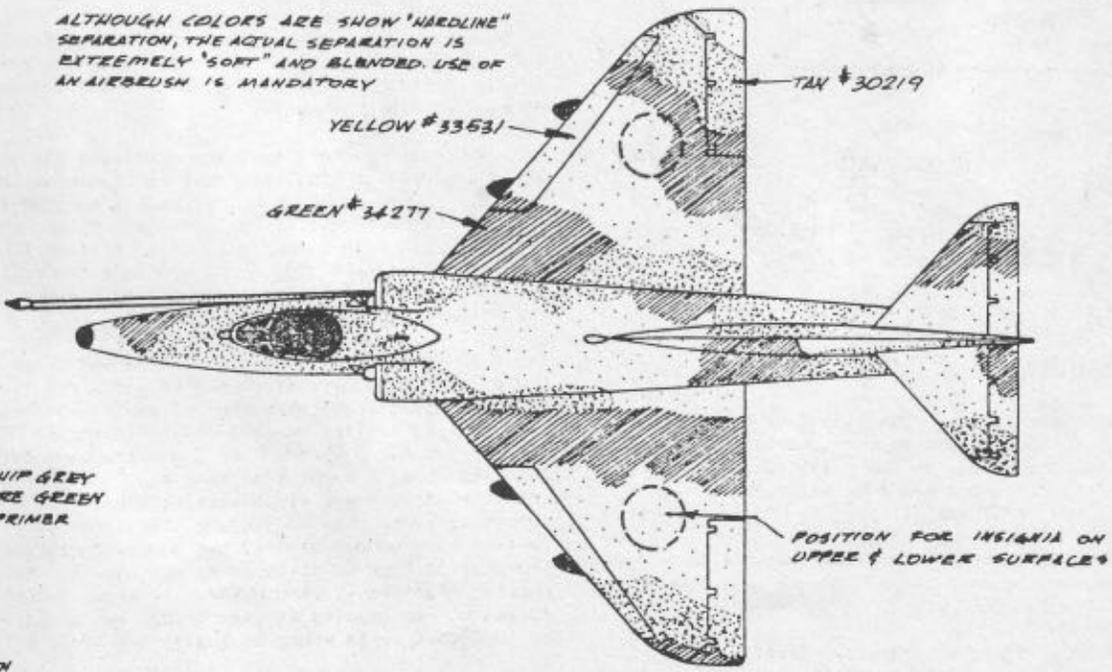
THIS AIRCRAFT IS IDENTICAL TO THE A-4E EXCEPT FOR A LACK OF ADVANCED ELECTRONICS

*Actually has square tip.*



JR BEAMAN '70

ALTHOUGH COLORS ARE SHOWN "HARDLINE" SEPARATION, THE ACTUAL SEPARATION IS EXTREMELY "SOFT" AND BLENDED. USE OF AN AIRBRUSH IS MANDATORY



- PACTRA COLORS**
- GREEN # 34277
  - 13 PARTS BATTLESHIP GREY
  - 5 " ANTI-GLARE GREEN
  - 5 " HOT ROD PRIMER
  - 5 " WHITE

- YELLOW # 33531**
- 6 PARTS KAKHI
  - 2 " WHITE

- 10219**
- 1 " LIGHT EARTH
  - 4 " TERRA COTTA
  - 1 " BLACK
  - 4 " WHITE
  - 4 " KAKHI

ALL PACTRA COLORS LISTED ARE THE NEW SERIES

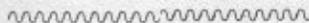
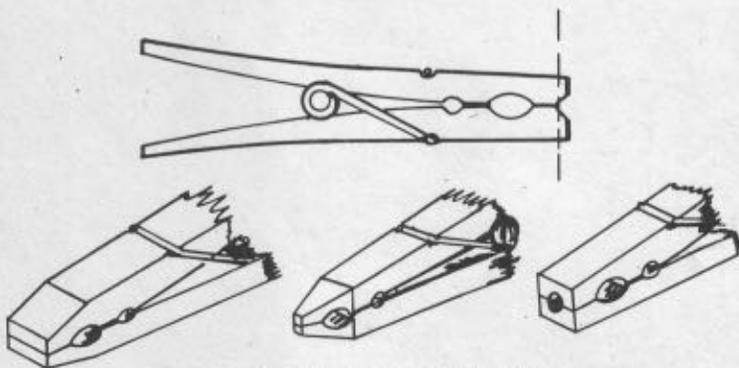
Contrary to what some people believe, there is a difference between "Green Stuff" and "Green Magic". They are basically the same type of Toluol-based auto putty, but "Magic" contains more Toluol. Toluol evaporates and attacks plastic while curing the putty. "Green Magic" then, with more Toluol, dries faster, shrinks more, and is more prone to crack when applied in large amounts, necessitating a second filling. It also adheres to plastic better than "Green Stuff", since it "melts" the plastic more. It seems that "Green Stuff" is weaker structurally than "Green Magic" and is consequently easier to sand. "Green Magic" seems to give a smoother finished surface, although both are pretty much the same. Summarizing, both putties have their advantages and disadvantages, and it is up to the modeler to decide himself which he prefers to use.



SPRING ACTION CLOTHES PINS -- LARRY BUETTNER

Spring action clothespins are a cheap, efficient way of holding things. Shape the ends to suit your needs. I use the large ends to hold large areas, e.g. wing halves and large drop tanks while gluing and painting. The smaller ones hold smaller objects like landing gear, stabilizer halves on fighters. If you put opposing "V" notches in them they will hold round objects, like small drop tanks and bombs. If you drill holes in the arms of the pins, you can hang them up, which is especially useful when drying paint on parts.

The only how-to-make info I can give is to (1) take it apart so you have three pieces, (2) cut the top section off so the end is blunt, (3) cut desired shape on tip, (4) re-assemble. Shown here are some of the shapes I have found most useful. If these don't suit your needs, design your own. I hope they help you as much as they have me.



CONTEST JUDGING - John Greer

Oh, the life of the judges! Ever since we began the new system of contest judging and scoring, we have had innumerable questions, comments, advice, assistance, etc. Much of this has been friendly, some has been helpful; but some has been critical, and perhaps a bit has been "sour grapes".

In an effort to clear the air and let everyone know just what we, as judges, are looking for in the contests, we sat down and came up with the following.

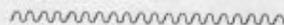
Judging is done on four basic areas. First -- Construction. Are all seams filled, or are they still visible? Is all flash properly cleaned off the parts? Are the parts aligned properly -- dihedral, etc? Are sink-holes, die punch marks, etc, filled, and is the filler sanded down properly? In other words, was the model carefully and correctly assembled, was it slapped together or is it somewhere in between? This area receives 30 points. Second -- Finish. Is the color scheme authentic; within reason? We don't argue too

much about this as there are infinite variations, but if you have something unusual, verification by photo or published drawing is helpful. Is the color applied properly? If you hand paint, are there brush marks; if you air brush, how about over spray? Are color separations, be they sharp or blended, done properly? Third -- Markings and Extra Finish. Look at your decals. Does excess decal film show around the edges of your markings? Certainly this can't be helped on intricate markings, but it can be eliminated on large and simple decals. How tightly do your decals adhere to your model? Can surface detail be seen through them? If not, they're not down tight enough. Are your markings authentic? It looks pretty funny to see stars and bars with a red stripe on an F4F-3. Again, if you have something unusual, use a photo for verification. Hand painted markings and non-kit decals are considered extra finish. Fourth -- Enhancement. This area involves added detail that isn't present in the kit as it comes from the box. Cockpit detail, rigging antennas, and any scratch built detail comes into this category. We must be notified of this type detail, which brings us to one of our biggest problems.

Each model entered in the contest must, repeat MUST, be accompanied by a 3 x 5 or larger standard size note card telling what the model is; what extra work, if any, went into it; and any other pertinent information relating to it. Also, the age of the modeller; that is junior or adult, should be on the front of the card. The name of the modeller should not be on the front of the card, but should be on the reverse side. With this information available, it becomes unnecessary, and undesirable, for modellers to follow the judges around giving advice at a time when it really cannot be accepted without possibly showing partiality to some modellers.

One last comment relates to dioramas. The layout of a diorama is judged as enhancement, with the basic criteria being realism and consistency of scale.

Now, having hopefully cleared up many of the misconceptions and misunderstandings that have occurred, all we can say is -- go ye hence and build like mad.



TO JUDGE OR NOT TO JUDGE? - Mike Quan

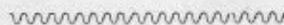
In recent meetings the Seattle Chapter has held contest judging of models in various categories. While the intent of contests is to give direction to our club's activities, I feel that, rather than helping, it has possibly hindered our objective of the betterment of our club.

Being a judge I am intensely aware of the difficulties and frustrations the club faces in holding a contest, and I have overheard members expressing their dissatisfaction with our monthly contests.

The board members envisioned raising our club's standard of modelling with a contest every month. Members hopefully would bring in better models each month as a result of discussions of techniques used by the winning entries. Instead, I feel our models have declined in quality. I was shocked to see models entered with gaping unfilled seams! It seems as if the judges were judging the members' worst models.

The task of judging isn't all peaches and cream either. How do you judge cars on "markings and extra finish"? How do you judge a model when the builder is looking over your shoulder and telling you all about his model? That is why we have the 3 x 5 cards. The 3 x 5 standard card and 1:30 deadline rules for entering have also not been observed, with the consequence of belaboring the judges chores and consuming extra time in judging. This can only lead to wasting time of our allotted two hours, therefore depriving the club of time to discuss methods used in the winning models. Perhaps we should elect judges. I don't think judges can be experts at everything, but a judge shouldn't be told that he is wrong by bystanders while he is judging.

Perhaps the board has overextended our club's capabilities by holding contests. What do you members think? Is our contest every month helping our club? Please let me know what you think. To judge or not to Judge? -- That is the question!



## ADDITIONS TO THIS REPRINT

1. Part one of the Boeing 299 article by Terry Moore from Vol. 1, No.2 of JETSTREAM
2. Japanese color symbols by "Nabe" Watanabe and Bob LaBouy from Vol. 2, No.1 of this newsletter
3. Handpainting Sharkmouths by Terry Moore from Vol. 2, No.1 of this newsletter

### WHAT DID THE PILOT WEAR? - Doug Beagley

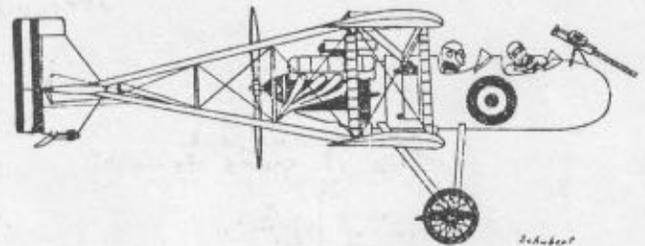
I have wondered for some time why we have not read a comprehensive article on the subject of the clothing of aircrews. Everyone inside the Society, and many outside, work diligently to produce extremely accurate reproductions of aeroplanes complete with authentic colours, markings, and details. However, many times the crew members, if included, show a lack of the same sort of information that went into the rest of the model. The assistance that has been forthcoming from the kit manufacturers has not been overwhelming, in fact, the oft repeated instructions "Paint the pilot brown, with flesh face" leave a little to be desired. With few exceptions the figures, as received, show the gentleman to be wearing full flying clothes, with Mae West if of the WW II period, or with helmet if of more recent time. Is this the only two variations that are to be found? I would like to see a project started to collect information to fill the void in the modelling hobby. I do not have all the necessary data, but in an effort to get something started I am glad to cover the period and service that I knew, and recall.

At the outbreak of WW II and throughout the conflict, leather flying clothes were issued to R.A.F. crews, but they were not always worn. Also long gauntlet gloves and flying boots were available. Later the flying boots were changed so that the fleecy lined upper parts could be cut away and leave a strong walking shoe. Walking had proved a little difficult with the old soft unsupported flying boot. This full equipment was used if cold high flights were to be undertaken, so this type of dress would be appropriate for the aircraft of Bomber Command engaged in night operations over Germany. However, it would look a little odd for the pilot of a Battle of Britain Spitfire or Hurricane. During this period the pilots were wearing their blue uniforms, with collar and tie, or scarf. The latter was favoured by many. Later the battle dress replaced the uniform. If the operation would take them across the Channel to the continent, then the Mae West would be worn, but on local flights it would be left behind. Goggles were usually worn and pushed up on the helmet, and were only pulled down over the eyes in an emergency, the plexiglass (perspex) being shattered. Standard to all crews in operational aircraft was the flying helmet, this was brown in colour with black earphones, and face mask. This face mask was black rubber with wash leather lining, and was usually clipped to the left side of the helmet and pulled over the face to transmit through the microphone until 10,000 feet when oxygen was supposed to be used. At this point the mask was clipped to the right side of the helmet. The parachute harness was off white, and the harness was a light gray. It will be obvious that there were many variations, men would fly in the shirt sleeves, with

turtlenecked sweaters, and occasionally a pilot would be seen going out early in the morning with parts of his uniform pulled over his pyjamas. This sort of thing depended upon attitudes of the Flight Commanders and unit C.O.

Flying in the middle east and Mediterranean brought entirely different uniforms, as tropical kit was the issue. The shirts and slacks (shorts optional and most frequently worn) were a light khaki or tan. In time this washed out to an off white to such an extent it was possible to wear white shirts and get away with it. Socks to the knee were tan and shoes were worn frequently black, but suede was quite "the thing" with the Desert Air Force. Here again if over water flights were in prospect the Mae West was apparent in its off yellow. The overseas issue helmet was linen and light tan in shade with black earphones and face mask. As the temperatures rose there was a natural tendency to discard all the clothing and equipment possible so frequently the pilots would fly without shirts and I have personally seen them take off with neither the parachute nor the harness buckled. This is understandable when the temperature in the shade reaches 132-136 degrees. An added detail seen upon occasions on the light bomber squadrons, when going in a low level in heavy flack, was the use of the steel helmet. The pilot and other crew members would take their issue steel helmet with them and upon reaching the target area would screw it down tightly on their head over their flying helmet.

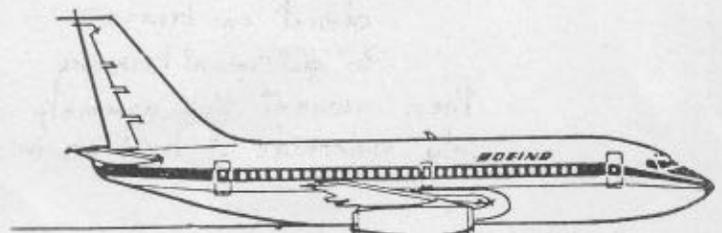
To the best of my knowledge the uniform described in the previous paragraph also applies to the R.A.F. in the far east, but as I was fortunate enough to avoid this area, I cannot say with certainty. I do hope however, that others will come forward and add to the basic information. I have written and found material upon the Luftwaffe uniforms, but I would like to hear from an ex-member to know generally what variations there were. I have no idea what the Japanese wore and would like to find out, can anyone help?



"I think these wire wheels are so sporty!"

Go West young man....

to Seattle for the '72 convention.



## ARMOUR, AT LAST!! - Steve Cozad

Like the title suggests, finally an article on tanks. I have never written an article of any sort before this, so please forgive any mistakes or incomplete areas in this feeble first attempt. There are undoubtedly going to be questions on why I didn't go deeper into the subject of "super-detailing". When it comes to armour modeling, I think there is just too much to put into words concerning the detailing of them. So if there are any questions about the subject, I'd be more than glad to answer them personally at the monthly club meetings. At any rate, here we go.

The following is an article on the conversion of an Airfix 1/76 scale Stu.G. III (SdKfz 142) assault gun to an Stu.H.42, L/28.3, (SdKfz 142/2). The only difference in these two is that the 142 has only a 7.5 cm gun, and the 142/2 has a much larger 10.5 cm assault howitzer. Side armour skirts were also usually added on the latter type vehicle for further protection against infantry recoilless weapons.

For the most part, the building of this tank is more or less straight forward from the kit. The model is built complete except for the gun and gun housing. The conversion begins at this point.

I started by taking the breach block that comes in the kit and cutting the forward section off (see drawing A in the illustrations). Next, take the rear section of the breach and snap it into the gun housing, so that it elevates freely (see drawing B). Then take this gun housing assembly and cement it into the underside of the hull top, like it shows in the kits instructions.

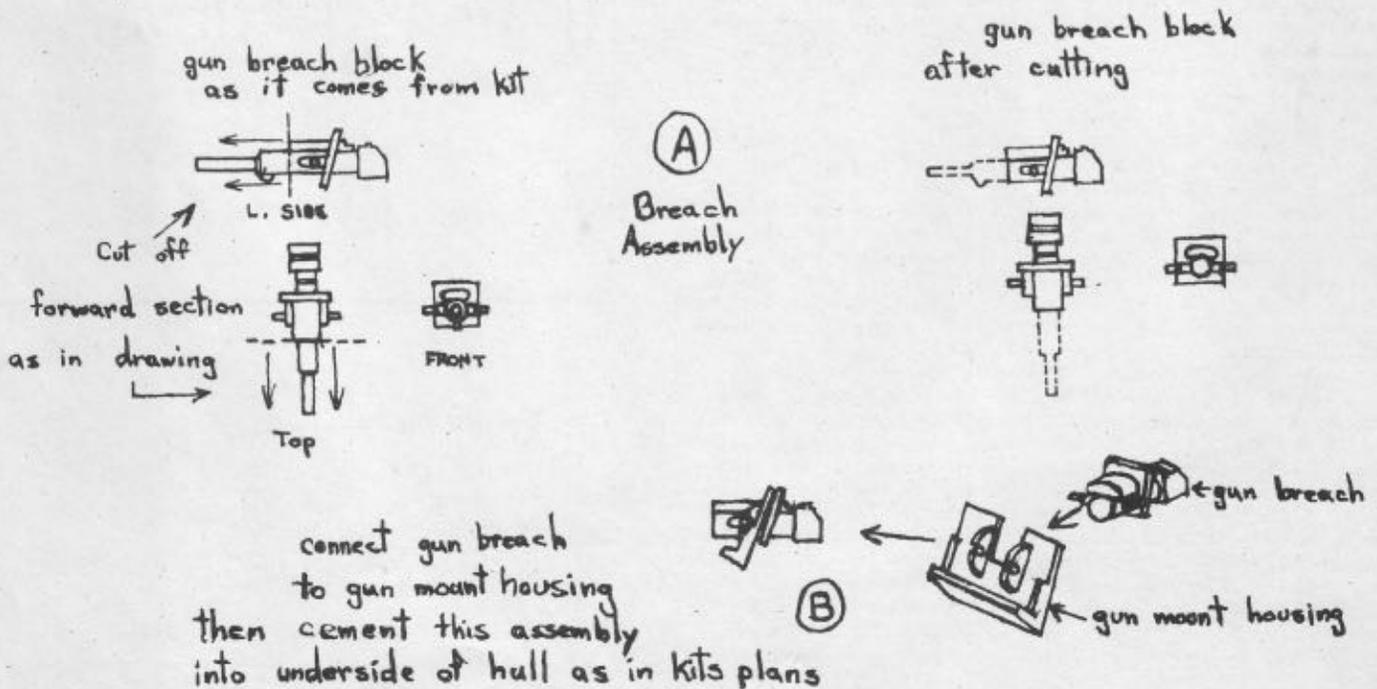
The next step in the conversion is to make a new gun shroud, which is a relatively simple task if you have the right materials. I used redwood because it is easy to work with and

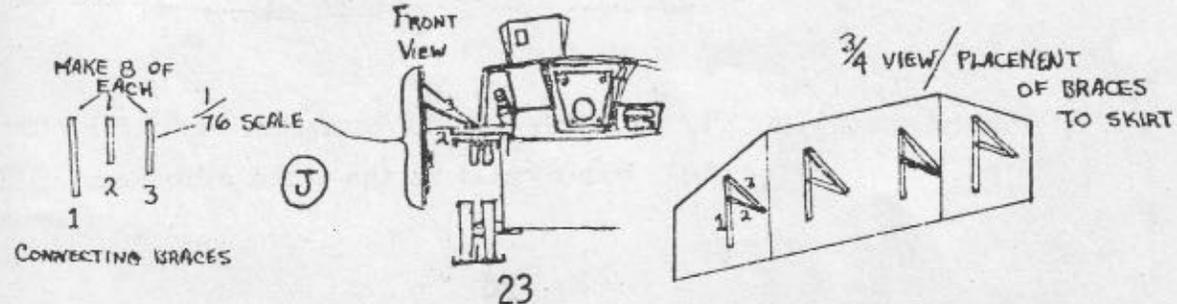
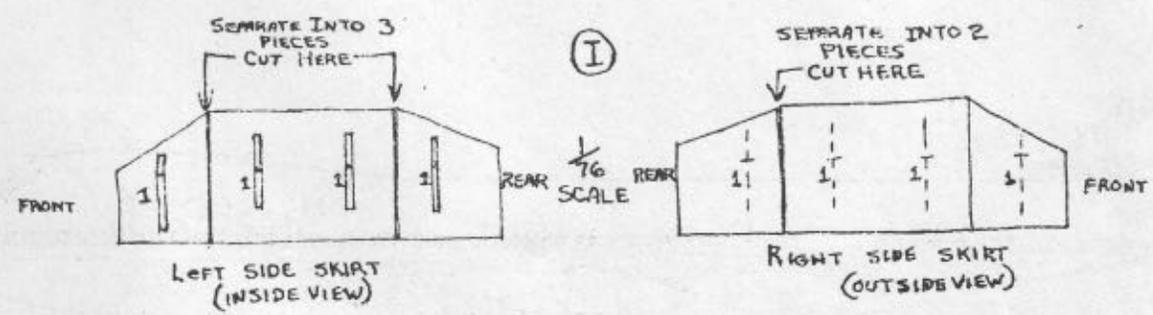
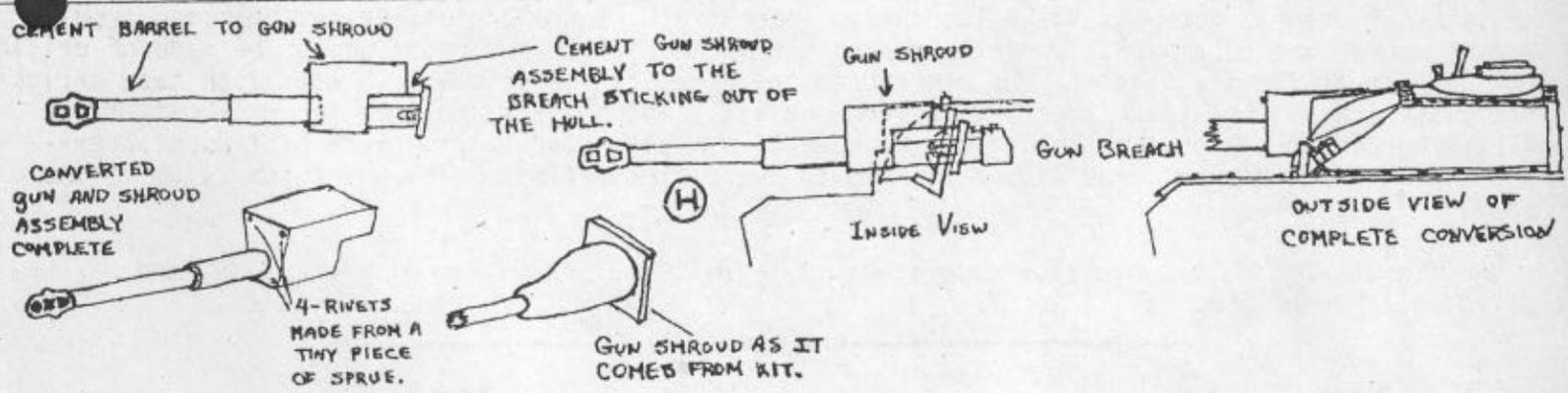
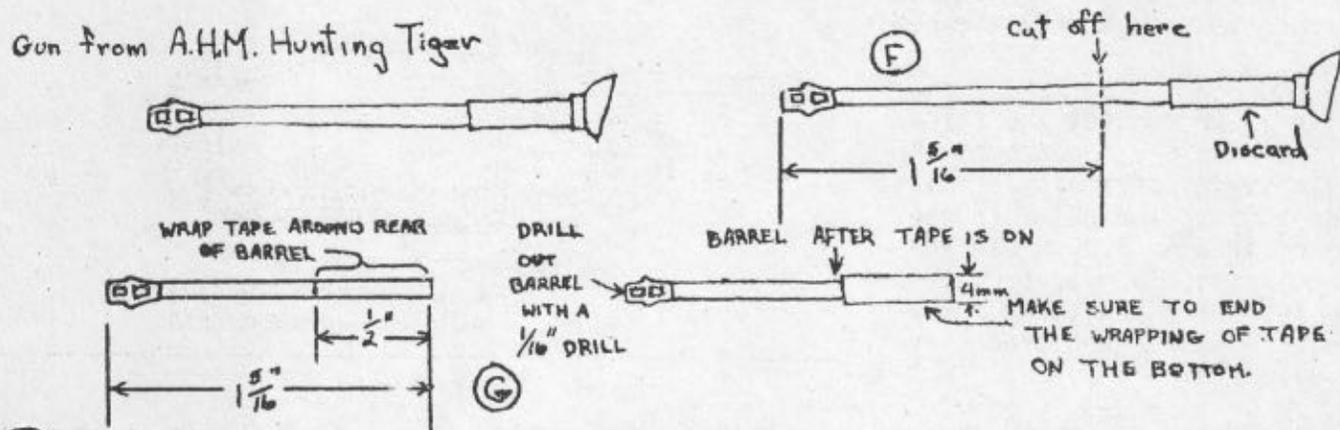
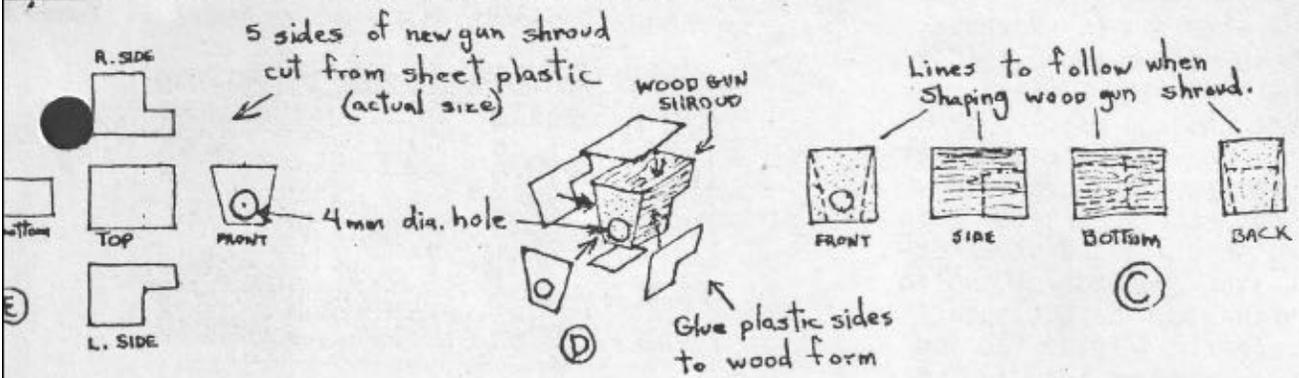
not as soft as balsa. Going by drawing E for dimensions, check with drawing C for the shaping of the shroud. When the wood shroud is done, going by drawing C again, cut out the five pieces for the top, bottom, front, left and right sides of the shroud. These five sides should be cut out of .010 sheet plastic. In the front piece of plastic, and in the same place on the front of the wood gun shroud, drill a 4 mm hole. This is to glue the barrel into when it gets done. When all the sides are cut out you can start cementing them into place on the wood block (see drawing D). Be sure to use tube glue for this, because it's kind of obvious that liquid glue wouldn't hold very well. After all sides are glued into place and dry, sand all edges smooth so that very little seam shows. Be sure all these edges stay sharp, do not round them.

The next step in the conversion is the gun barrel. You can start with a barrel from an A.H.M. Hunting Tiger Mini-tank. Looking at drawing F, cut the barrel off so that it is 1-5/16 inches long from the muzzle brake to the rear.

Next, referring to drawing G, cut a strip of scotch tape about 1/2 inch wide and start wrapping it around the rear part of the barrel so that it gets built up to about 4 mm diameter. When wrapping the tape, make sure to end it on the underside of the barrel to keep the seam out of sight. After the wrapping is done, drill out the muzzle brake using a 1/16 inch bit. Now glue the barrel to the newly made gun shroud. Make sure it dries straight! The next thing to do is to cement the barrel and gun shroud assembly to the already cut off breach in the gun housing (see drawing H). Now cut out a small piece of kleenex and get it wet so that it will drape realistically, like canvas, over the back portion of the gun shroud. When all of this is done, the actual conversion is complete.

### Armour , conversion



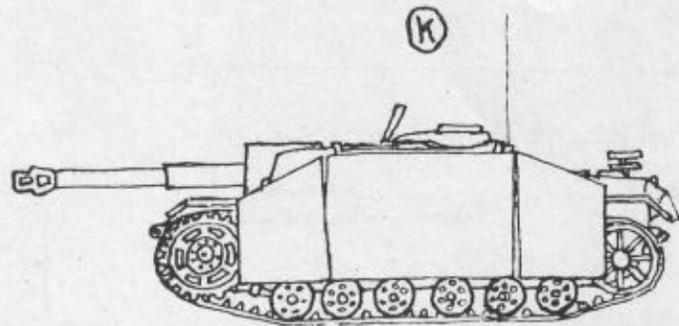
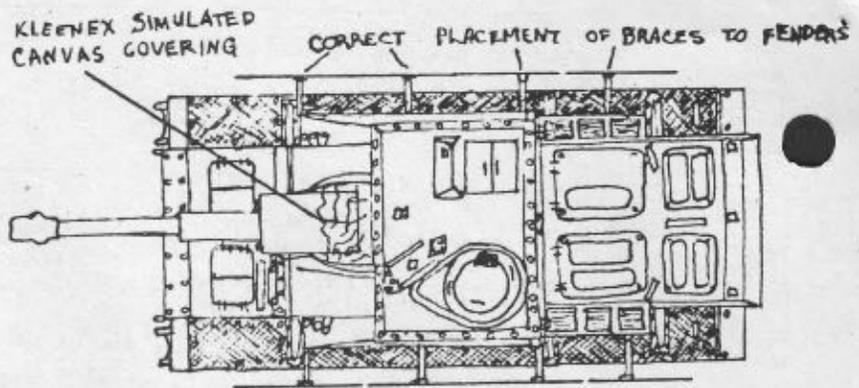


The addition of side skirts to the tank is of course optional, but they make a more interesting piece of armour. To do these side skirts, your best bet would be to use sheet plastic of the .010 size. Start by using a straight edge and the pattern shown in the illustrations; draw out the same pattern on the sheet plastic. Using a razor knife, or scissors cut out the skirts. When they are cut out in one piece and stuck on the tank they look rather monotonous, so to break up this look, they can be cut into several sections (refer to drawing I). On the right side they can be cut into two sections, and on the left they can be cut into three sections, or anyway that might look appealing. This way when they are put on the model it looks as though they are beat-up and old.

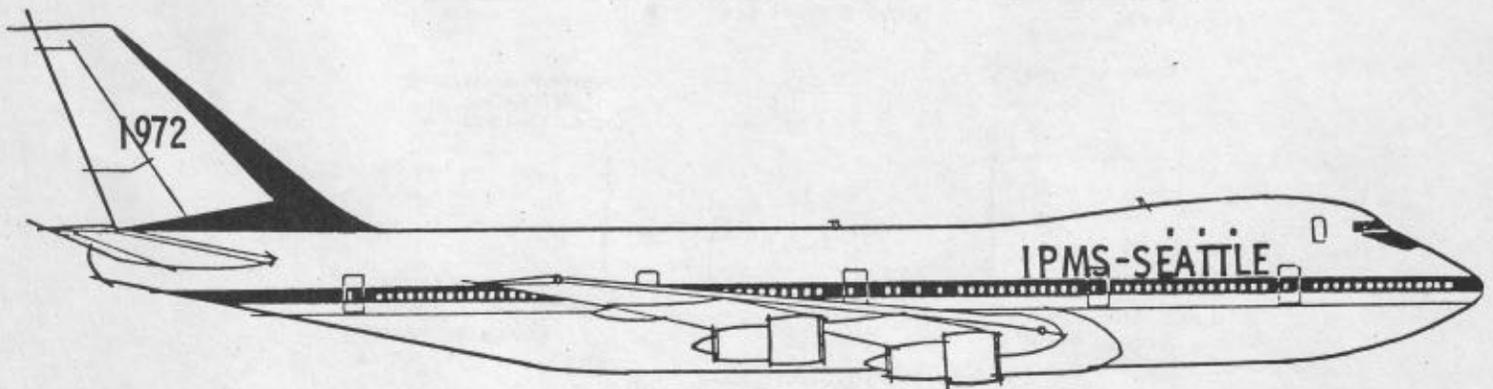
The next step is to connect the skirts to the tank. The best way to accomplish this is to cut a series of strips of plastic and use them to connect the skirt to the tank. Looking at drawing J, you can see the basic way to fashion and connect these strips between the skirt and tank. Drawings I and J of the skirts and braces are approximately 1/76 scale.

When the following is complete, the main detailing is done. All that is left to do is to add the smaller details such as, smoke launchers, spare track, spare bogies, boxes, helmets, crew, and of course the paint job. Smoke launchers can be made of brass tubing or can be made of drilled out lengths of plastic. As for the other details, boxes can be carved from wood with tape strips for reinforcers. The spare tracks come from the kit. The helmets are from the crew out of the Airfix German armoured car. A flag can be made of a rectangular shaped piece of tissue paper -- the stuff found in shoe boxes -- and painted to the desired effect. The paint job is up to the individual modeler.

References for this conversion come from: B.T. White's, *German Tanks 1914 - 1945*, and *AFV News*, March 1968, Vol. 3 No. 2.



PLACEMENT OF SIDE SKIRTS  
NOTE THAT THEY ARE TWISTED  
TO SHOW WEAR AND TEAR



Come to convention July 14, 15, 16, 1972; see the beautiful Pacific Northwest!

See 747's being built in the world's biggest building.

## HOW POPULAR IS ARMOUR MODELING? - Mike Edwards

Here is my try at remedying the shortage of A.F.V. (Armoured Fighting Vehicle) articles in our local newsletter. You will have to excuse me for all the mistakes in grammar and all as if I would write in Hungarian it would be hard to understand for all you foreigners!!

Armour kits are fairly new to model builders but they can give you an excellent variety of scales -- 1/87 Minitanks; 1/76 Airfix and Midory; 1/48 Aurora, Tamiya; 1/35 Tamiya, Nichimo, Nitto etc.; 1/25 Tamiya, Nitto, etc.

To start a collection you will have to make a decision first depending on room available, number of vehicles, and in most cases the little important thing called money!

Now before we start building a model we have to know a lot of details of the different camouflage and markings. There is basically no real pattern for coloring an armoured vehicle, but you have to have some ideas on different countries.

United States Army: O.D. (olive drab) overall finish on all vehicles is standard. Possible winter color; white wash over O.D. was used on some of the tanks in Europe, W.W. II. The best effect is achieved by using white tempera paint (water base) washed over the model with a lot of water. In the desert (Operation Torch) at times they oversprayed with light earth spots.

U.S.S.R. (Russia): Forest green overall finish on all vehicles, except in early cases, no paint at all was used, as tanks went from the factory right to the front. Winter colors are the same as U.S.

United Kingdom: All vehicles' basic color is Artillery Olive; in some cases with dark earth overspray. Desert colors, (Eighth Army) yellow in some cases light green or dark earth irregular overspray. Winter camouflage; white wash over original colors.

Germany: 1938 to 1940 Europe; Panzer Gray overall. 1941 Eastern Front and Africa; light earth or desert yellow. 1943 to 1945; camouflage used was decided by the commander in the field, as all vehicles at the factories were painted either Panzer Gray or Light Earth.

Examples: Eastern Front summer: light earth with dark or light green overspray. Spring and fall colors were light earth with brown or dark earth overspray. Winter white wash over existing colors. Western Front: Panzer gray was used as basic color in the summer oversprayed with light or dark green. In the winter it was oversprayed with white or very light gray.

Japan: All Japanese vehicles were Mustard Yellow with irregular green or yellow lines oversprayed. Japanese armour was never used in large numbers consequently camouflage was up to the crew of the certain vehicle.

In the next issue, I will write about the proper paints to be used on your vehicles and the building techniques.

\*\*\*\*\*

## MASKING CIRCLES - Don MacBean

Here is a method for the masking of circles which is particularly useful for painting wheel hubs which can be most frustrating if no wheel rim is provided. I have been using a simple but effective method for several months which some might find quite helpful.

The tool required is a "drop compass" (used for making small accurate circles and is available at drafting supply stores). For masking material I use "Dullseal" or "Mac-Tack" (both of which are available also at bigger stationary or art supply stores).

The drop compass pencil lead must be replaced with a metal point which you will have to rework to a rounded knife edge, similar to a guillotine. A good sharp edge must be made, otherwise the thin dullseal will rip with a jagged edge rather than a sharp cut edge.

Although I haven't tried it for masking roundels, this method should work perfectly.

## HASEGAWA P12E - Terry Moore

Hasegawa's P-12E in 1/32nd scale is now out, and it is up to their usual high standards. The fuselage detail and the cockpit

Hasegawa's P-12E in 1/32nd scale is now out, and it is up to their usual high standards. The fuselage detail, the cockpit, corrugated tail surfaces, as well as the engine, are all beautifully reproduced; the wing fabric is also well done. Apart from the lower wing, the fit of the parts is also very good. In order to get a good fit of the the lower wing to the fuselage, file the rib on the lower wing half off.

An interesting feature is that the interplane struts are moulded as one piece, which helps the upper wing alignment a great deal. This is a similar feature to the Monogram "Fighters of the '30s" series; the F4B-4, P-6E, F-11C in 1/72 nd scale. Although the decals are thick-looking on the sheet they are quite the opposite, as they matte down over every detail including the wing fabric. There are decals for seven (7) different aircraft, and all colors are accurate and on register. For those who might convert it to an F4B-3 or -4, a Felix the Cat insignia is also included. One final note: Although the P-12E was originally fitted with a tail skid, tailwheels were retrofitted to all aircraft and markings went unchanged. The kit comes with the tailwheel.

## A QUICK REFERENCE GUIDE TO PHANTOM CONVERSIONS

- Larry Buettner

Have you ever wanted to build the entire line of F-4s, or just one that doesn't exist in kit form? I have, and it may be a lot easier than you think.

At present the U.S. inventory has included the: F-4A, F-4B, RF-4B, F-4C, RF-4C, F-4D, F-4E, F-4G, and F-4J. We have the following kits to work from: Airfix and Revell F-4B, IMC RF-4B/C, Revell F-4C, and Hasegawa F-4J. I work only in 1/72 scale, so I am not familiar with the larger scale kits available.

I have used the following references: Almarks - *The F-4 Phantom* - Richard E. Gardner ; Profile 208 - *McDonnell Douglas F-4 Phantom* - Paul St. John Turner; Morgan's Aviation Hall of Fame - *The F-4 Phantom, Douglas DC-3, and P-47 Thunderbolt*; Green - *The World's Fighting Planes* - pages 191 - 195; *Green-World Guide to Combat Planes* - Vol. 2 pages 100 -103; IPMS/UK Magazine - October 1969, pages 8-13; Airfix Magazine - April 1970, Cover and pages 374-377.

The Morgan book is also available singly in soft cover for \$3. The one I have is a composite of three books and sells for \$15 in hard cover. The single edition will have the same pictures only the page numbers will be different. I would suggest that you have the Almarks book on hand for any F-4 model you build. This article is not meant to be a bible on the F-4; its only purpose is to speed your research.

F-4A (Early)-- This will be the hardest conversion. It requires an extensively reworked fuselage from the wing leading edge forward (see 1/72 drawing in Almarks). The radar antenna was much smaller and the cockpits were located lower in the fuselage resulting in a slimmer nose. The prototypes had Wright J65 engines with "faired-in" intakes. From the leading edge aft, it is identical to the F-4B with the exception of perforated spoilers on the upper wing surfaces. See photos in Morgan pages 4 and 51, and Profile Page 72.

F-4A (Late) -- Flight tests brought about many changes. Increased radar scanner size and addition of the infra-red sensor brought about the "F-4B nose". Vision and headroom requirements required raising the cockpits and reshaping the canopies. The installation of J79 engines required redesigned intakes with variable geometry plates added. For modeling purposes, from the 48th aircraft on, the F-4A was identical to the F-4B. See photos in Morgan pages 11, 12, 13, 39, and 40.

Con't

F-4B -- No conversion. It is the base for the RF-4B, F-4C, and RF-4C.

RF-4B and RF-4C -- These aircraft have an elongated recon. nose. The IMC kit is accurate in outline except for the camera installation. It is quite simple to correct this error. I have done the conversion and it makes into a pleasing model. For modeling, the only differences between the -4B and C are in the rear cockpit. The RF-4C has a second pilot's station in the rear cockpit, the RF-4B has no flight instrumentation or controls in the aft cockpit. Until the Viet Nam camouflage was introduced in 1964, RF-4C and F-4C aircraft were painted in standard Navy color scheme with FJ buzz numbers. IPMS/UK page 11 has a drawing illustrating this scheme. IPMS/UK and Green's Combat Planes Vol. 2 illustrate the correct nose configuration very nicely. Also see Profile pages 65 and 78, Morgan pages 45 and 46.

F-4D -- The major external difference between the -4C and -4D is the radome. The -4D is externally identical to the F-4J except it has F-4B/C exhaust nozzles and six leading edge slats. I would suggest using the Hasegawa kit. Scribe the inboard slats on each wing and add the exhaust nozzles from the Revell kit. See Profile page 72 and Airfix magazine.

F-4E -- It has an elongated nose very similar to the RF series. A 20 mm. Vulcan M-61AI cannon is mounted in a fairing under the nose. Previous models, except the F-4J, (the -4E is actually the latest model of the series) have had six leading edge slats. The -4E and -4J have the inboard slats (#3 and 4) deleted. Both models are fitted with fixed, inverted leading edge slats on the horizontal stabilizers. The E's exhaust nozzles are similar to the J's but are longer. The stabilizer slats don't appear on the F-4J kit. Judging from the photos I have seen, they may be too small to appear in scale.

I have been contemplating the conversion recently. I would use the IMC RF-4B kit with Revell F-4B/C wings. The RF wings have no missile wells. The -4B/C wings mate perfectly, but you will have to fill in the inboard slat lines. You will have to use the exhaust nozzles from the F-4J and extend them (the Almarks book has 1/72 drawings of the -E and -J). I have a friend who tells me the way to proceed is to cut the noses off both kits and graft the RF nose onto the F-4J fuselage. I will let you decide which method you prefer. The nose gear door may be a problem. IPMS/UK page 11 shows the exact shape. See photos in Profile pages 66 and 73, and Morgan pages 41 and 42. It may be of interest to note that the prototype F-4E was a converted RF-4C.

F-4G -- It is externally identical to, and was converted from, the F-4B. It differed only in internal electronic gear. Only 12 were produced, and were operated only by VF-213 aboard the USS Kitty Hawk. The cover on Morgan gives a color drawing of an aircraft of VF-213. Also see Profile page 69.

F-4J -- It is accurately represented in kit form. No conversion required.

#### Phantom Marking and Color Notes

You will find the following IPMS publications useful: IPMS/UK Magazine May 1968 pages 6, 7, and 11; and October 1969 pages 8-13. IPMS/USA Quarterly Vol. 4 #1, pages 4 and 5; Vol. 4 #2, page 20; Vol. 4 #4, page 22 and Vol. 5 #1 and 2, page 24.

The following notes are important, therefore I am repeating them verbatim from the Almarks book.

From Table 2 page 24:

Navy: Note: Nose radome may be natural fiberglass, black, white, or painted gull gray-white. Flat insignia on gloss surfaces and gloss insignia on flat surfaces. National insignia above port and below starboard wing.

USAF: Note: National insignia above port and below starboard wing. Marking below starboard wing is the only one with blue outline to bars.

From Table 3 page 24:

Cockpit - light gray sides, scratched light gray floor showing bare metal where rubbed by crew's feet. Matte black and light gray instrument consoles. Matte black ejector seat, gray strap orange or green cushions.

Wheel wells - gloss white

Insides of opening panels and flap edges (only visible in open position) - gloss red.

There are many more publications available with good information in them. Remember, good research is one of the most important aspects of accurate modeling. If you find something in your research that doesn't agree with what I have said, please disregard my information. This is only a summary and is not meant to be a hard reference.

I hope I have shed some light on the various Phantoms and where to find information on them.

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#### MONOGRAM P-51B TO P51D - Terry Moore

Unfortunately there is no good kit of a P-51D. To get a good representation of one you have to use the monogram P-51B and convert it to a P-51D. To begin with, remove the rear deck from the monogram kit as shown (see the conversion drawings). Take the rear deck from one of the existing kits or make it out of plastic sheet. The deck immediately behind the pilot is hollow and the radio equipment rests on a platform of thin sheet styrene (see drawing). The top of the fuselage from the engine to the fin follows one continuous line. Note that this is an early variant of the P-51D (i.e., the absence of a fin strake). In the Monogram kit, the tailwheel is too far back - move it to the middle of the tailwheel door as shown.

The Frog P-38 windscreen is ideal for the P-51. For use on this conversion however, the sides will have to be sanded down and polished to fit. The bubble canopy is from the Hasegawa F-86 with a rear view mirror added. The seat has to be scratch built. The armor plate is made out of sheet styrene with a built up headrest; the bucket seat is made easiest with index card (3" x 5"). A canvas covering is built up around the base of the control stick with putty and rudder pedals are added.

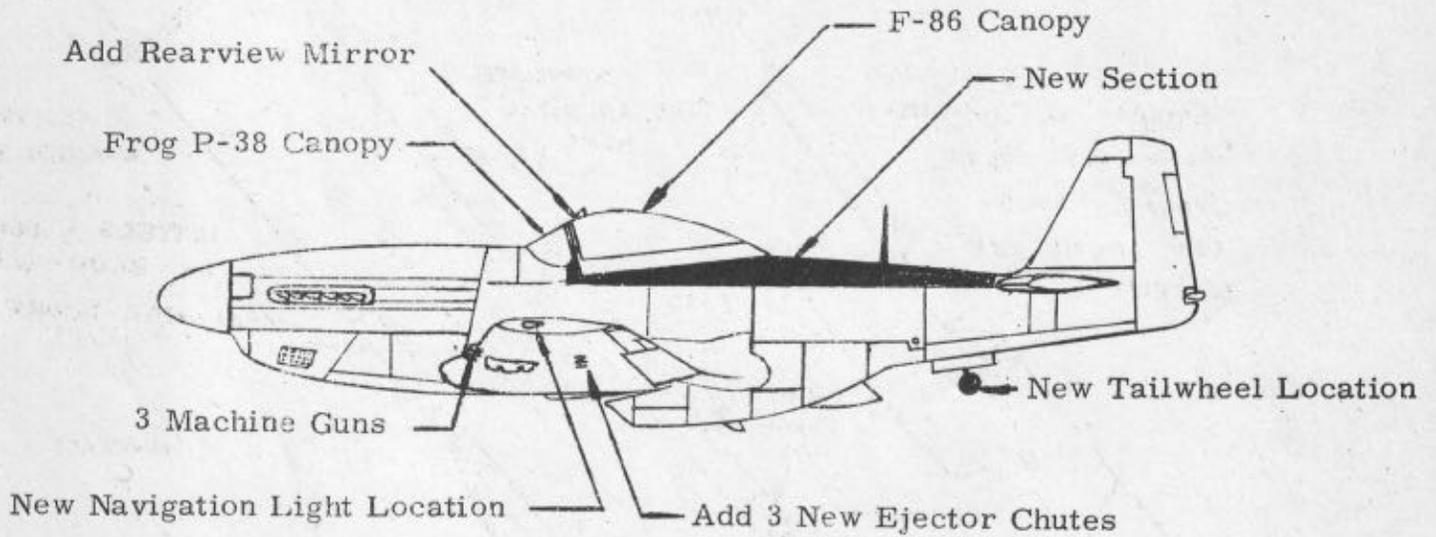
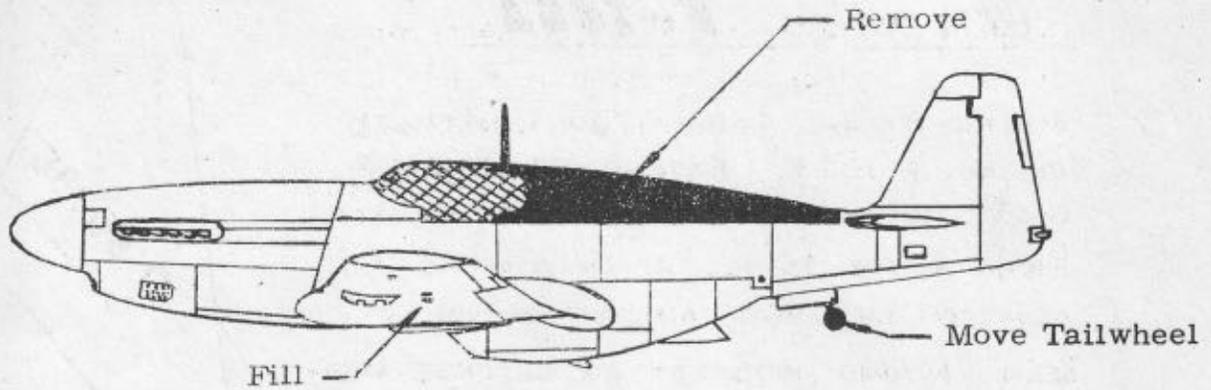
Remove the wing lights from the top and bottom of the wings and replace them with lights on the ends of the wings. Fill the gun ports and shell ejector chutes and, using the diagram, drill new ejector chutes and build up new machine guns.

come to Seattle-

1972 National Convention, July 14, 15, & 16

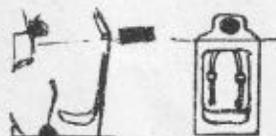
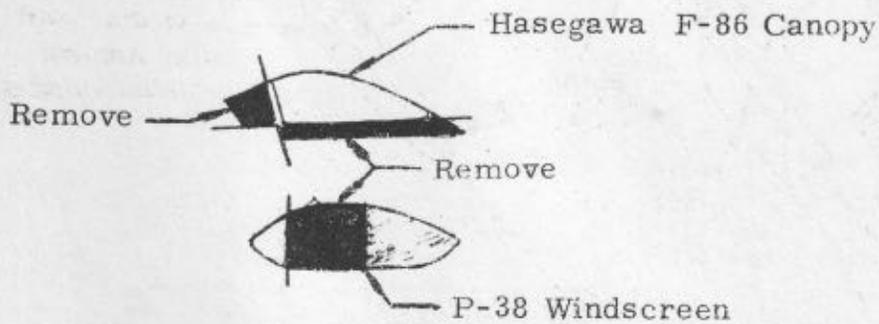


MONOGRAM P-51B TO P-51D



T. Moore '70

1"=6'-0" (1/72nd scale)

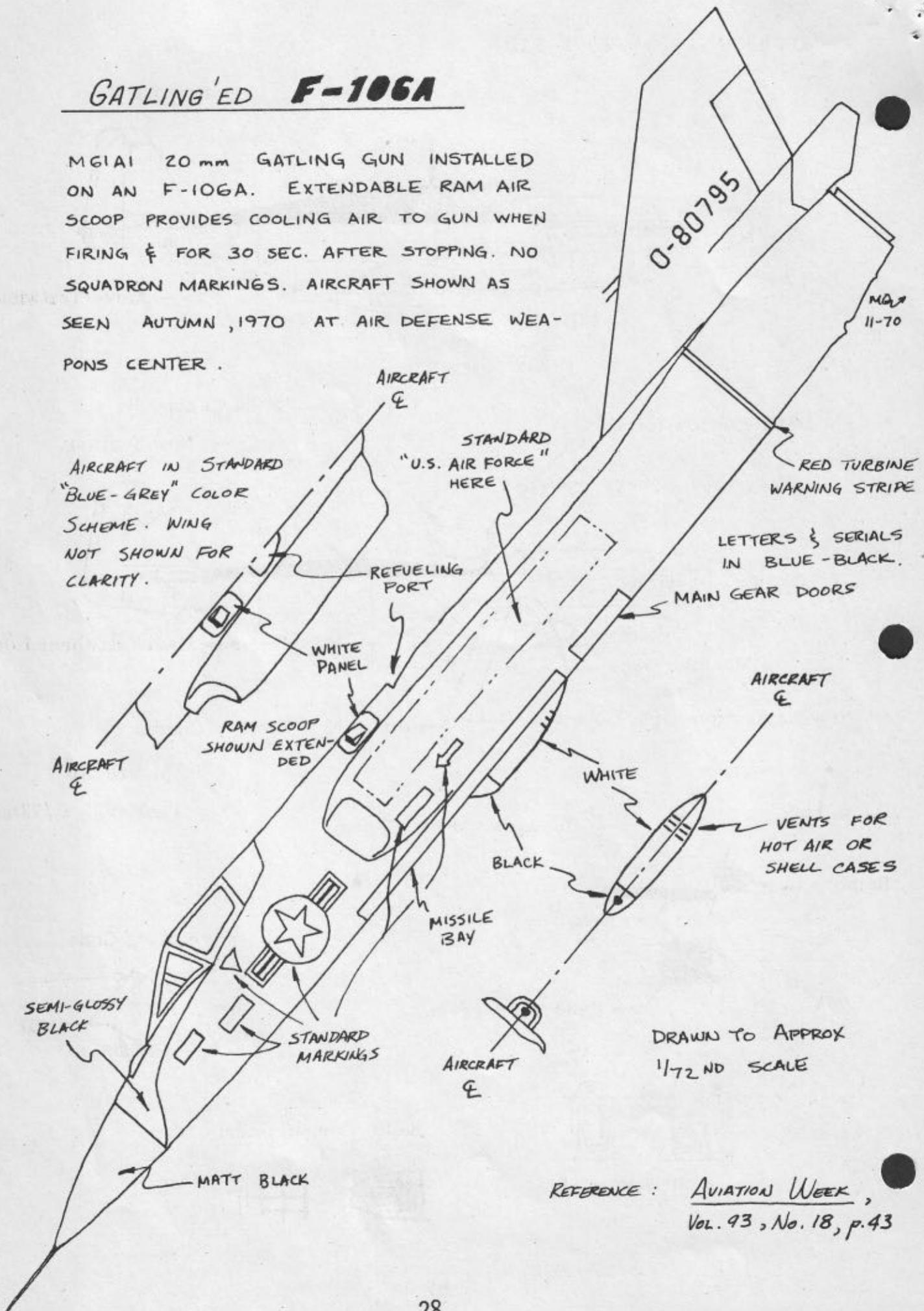


Radio Compartment



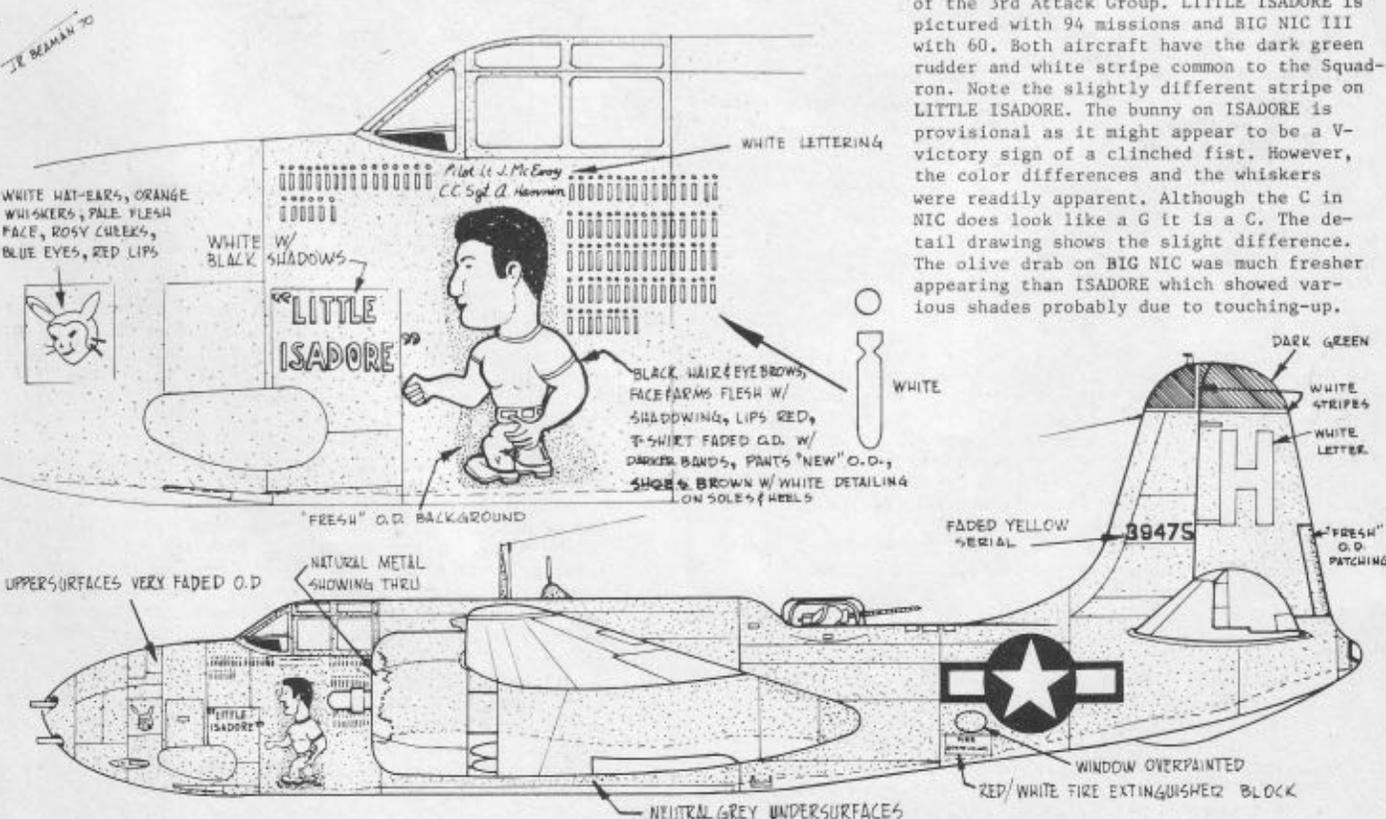
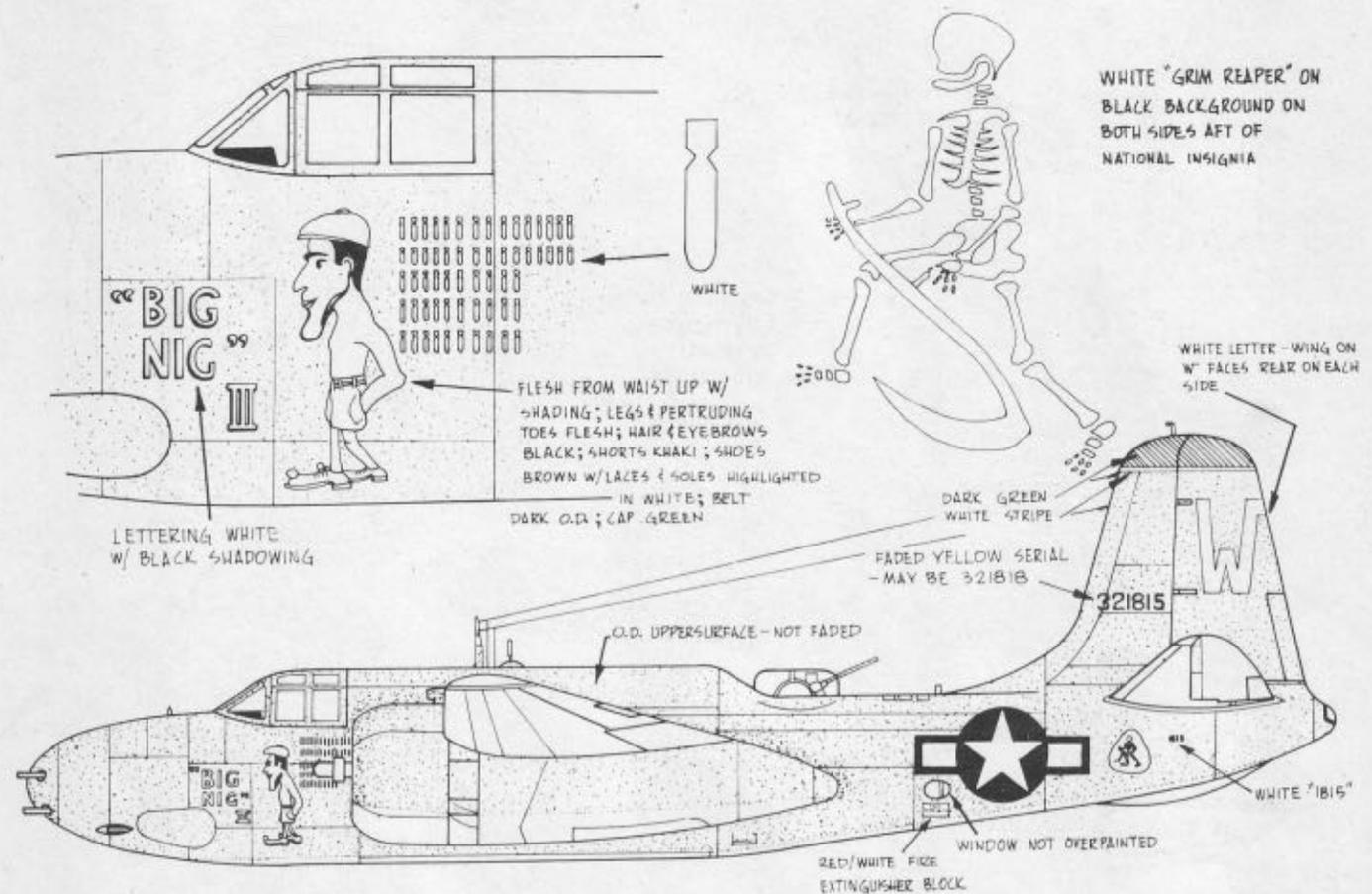
# GATLING'ED F-106A

M61A1 20 mm GATLING GUN INSTALLED ON AN F-106A. EXTENDABLE RAM AIR SCOOP PROVIDES COOLING AIR TO GUN WHEN FIRING & FOR 30 SEC. AFTER STOPPING. NO SQUADRON MARKINGS. AIRCRAFT SHOWN AS SEEN AUTUMN, 1970 AT AIR DEFENSE WEAPONS CENTER.



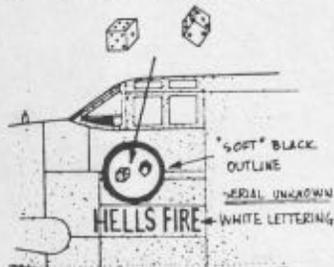
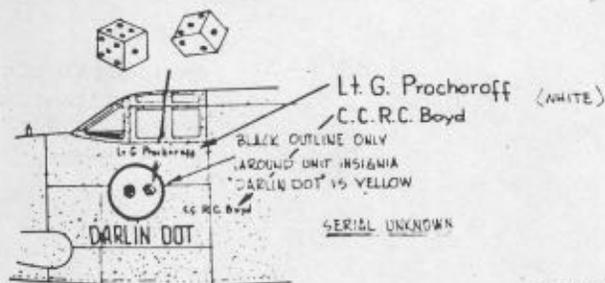
# 3rd ATTACK GROUP

# Southwest Pacific Area

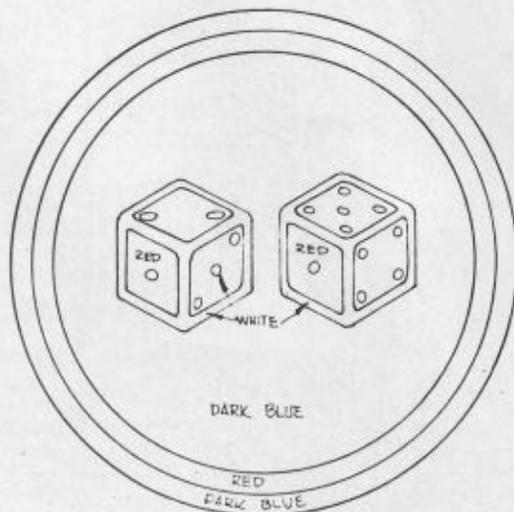


Both aircraft are from the 89th Squadron of the 3rd Attack Group. LITTLE ISADORE is pictured with 94 missions and BIG NIC III with 60. Both aircraft have the dark green rudder and white stripe common to the Squadron. Note the slightly different stripe on LITTLE ISADORE. The bunny on ISADORE is provisional as it might appear to be a V-victory sign of a clinched fist. However, the color differences and the whiskers were readily apparent. Although the C in NIC does look like a G it is a C. The detail drawing shows the slight difference. The olive drab on BIG NIC was much fresher appearing than ISADORE which showed various shades probably due to touching-up.

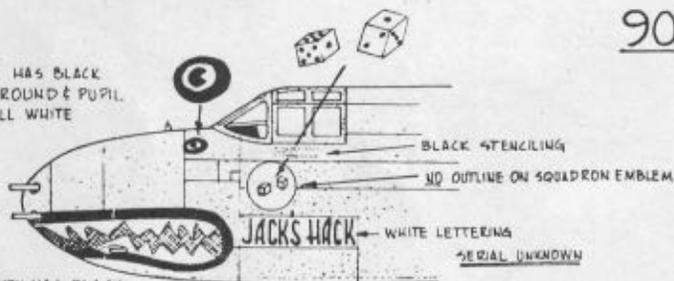
# data by LT. BOB MILLS, JR., USAF



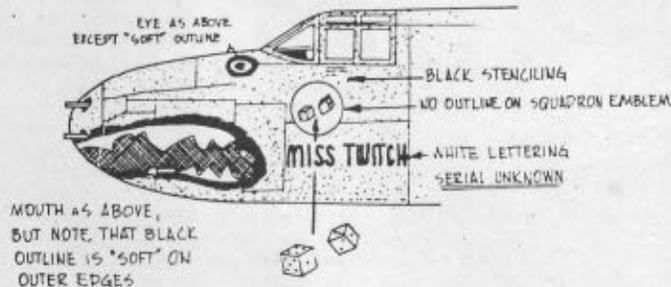
SQUADRON EMBLEM  
NOTE VARIATIONS  
ON AIRCRAFT  
ILLUSTRATED  
ALL EMBLEMS SHOWN  
HAVE DARK BLUE  
BACKGROUND



EYE HAS BLACK  
SURROUND & PUPIL  
BALL WHITE

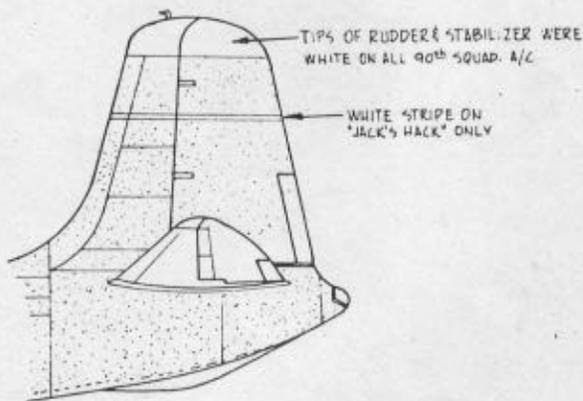


MOUTH HAS BLACK,  
HARD OUTLINE. TEETH  
WHITE - MOUTH RED



MOUTH AS ABOVE,  
BUT NOTE THAT BLACK  
OUTLINE IS SOFT ON  
OUTER EDGES

## 90<sup>th</sup> SQUADRON



TYPICAL RUDDER FOR 90<sup>th</sup> SQUADRON

The four squadrons comprising the 3rd Attack Group were the 8th, 13th, 89th and 90th. They are among the oldest and most colorful squadrons in the Air Force. The group flew in ground support operations of forces in New Guinea as well as attacking Japanese supply lines and shipping. In keeping with their heritage, the A-20s assigned to the Group were extensively adorned with squadron and personal markings. Some of the 89th and 90th Squadron aircraft are illustrated here. Others in the four squadrons were:

8th--MISS POSSUM, JUNK'S JUNK, PEGGY, BOB'S BROTHER and KATHLEEN. Yellow was the identification color for the Squadron.

13th--PLAY-BOY, STINKY, SCOTCH-SODA and TAX PAYER'S PRIDE. Red was the 13th's ID color.

89th--JUDGE GOLDBERGER, LIZZY CHEESECAKE, LIVER LIPS III, BIG BUTCH, JOE THE JOKER and KENTUCKY were stablemates to LITTLE ISADORE AND BIG NIC III. All the 89th's aircraft had caricatures similar to ISADORE and NIC. Green was the squadron's ID color.

90th--Most aircraft had the snarks mouth design similar to those illustrated. Others in the Squadron were MARK'S HOPE and OLD THUNDERBOLTS.

Note that the nose panel lines on the aircraft vary tremendously. This is probably due to the fact that many of these aircraft were fitted in the field with the "solid" noses. They used a variety of materials including metal and wood. Some just overpainted the plexiglass. The aircraft are thought to be early A-20Gs and were fitted in the field with turrets. The type of turret shown is correct. Note that all aircraft shown have the external gunsight except ISADORE. BIG NIC does not have the extra brace on the windscreen.

Unfortunately, there are no serial numbers available for the 90th Squadron. The dice emblem appeared on all aircraft in the Squadron. The position of the dice varied, but a total of 7 was always shown (i.e. 1+6, 2+5, 3+4, etc.) Mission markers do not seem to have been used in the 90th and most aircraft seemed to have a "fresh" paint job in contrast to those in other squadrons, many of which were rather faded and patchy.

All colors are provisional as they are based on black and white photographs in the Keeper's Harvest. This is a Group history published in Sydney in 1945 and edited by Lt. Col. Charles P. Martin. Thanks go to Greg Gatewood for the loan of this history. Further information on the 3rd Attack Group will be greatly appreciated.

# A-20-G (BOSTON MK IV) CONVERSION

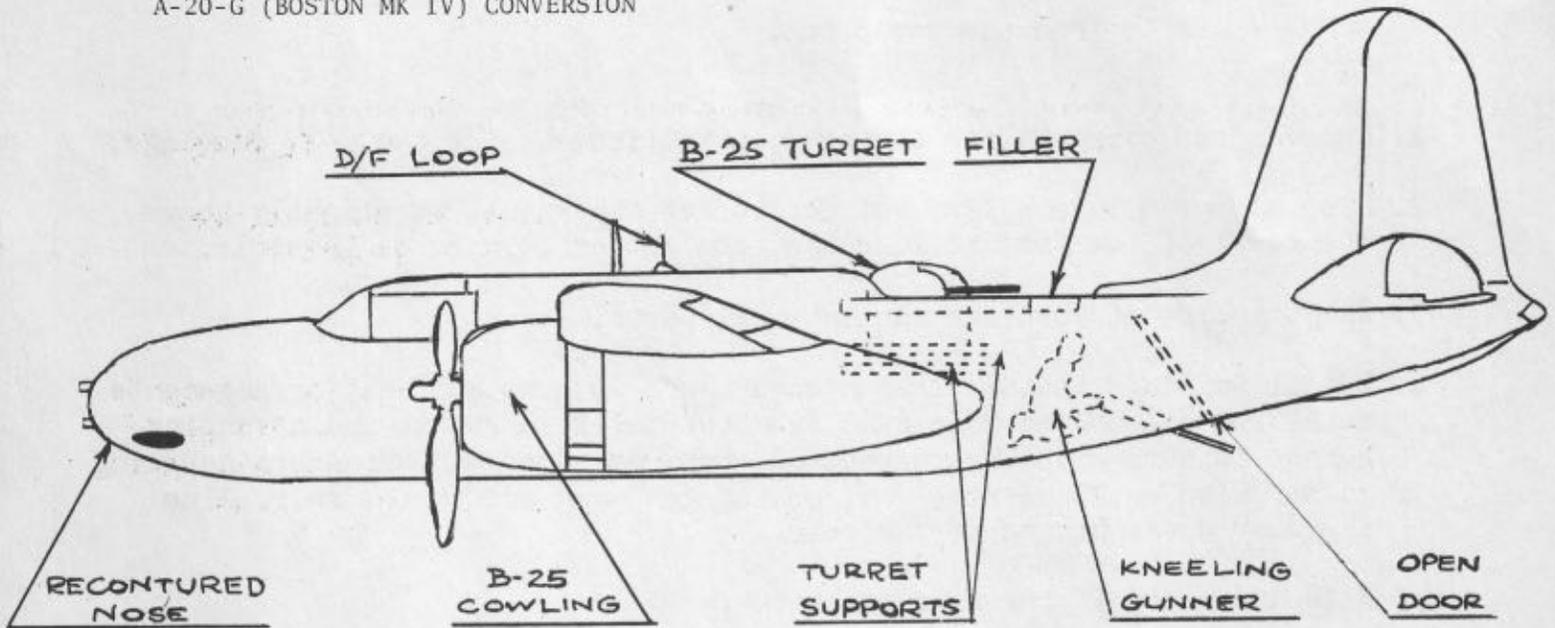
- Doug Beagley

Parts used. Revell A-20-C (Boston Mk III) Kit  
Frog B-25-C  
Parts from the scrap box.

1. Remove four supports for the rear turret from inside the B-25 fuselage.
2. Glue supports into A-20 fuselage, turret top should be slightly above the level of the forward fuselage, and as far forward as possible.
3. Paint inside of fuselage and internal parts.
4. Detail fuselage inside. I abandoned the B-25 guns and seat arrangements using .50 calibre machine guns from the Revell B-26 kit and arranging gunner to turn with the turret. Cut out rear door and arrange a kneeling gunner with a .50 machine gun, poking gun down and to the rear. Glue the door open, hinged at the rear.
5. File and sand off the exhaust stacks.
6. Assemble fuselage, wings, and nacelles.
7. Trim front engine cylinderheads to fit into B-25 cowlings.
8. Mount engines into nacelles.
9. Using A-20 cowls as template, cut B-25 cowls to fit under the wings. Inside diameter must be increased slightly. Attach when fitted.
10. Mount fuselage filler piece immediately aft of turret, fill area aft with scrap, file and sand.
11. Fill area ahead of the turret to correct profile
12. Complete nose area, fill holes for the gun blister mountings (these are not used). For A-20-G build up nose to correct profile, eliminating bomb aiming panels.
13. Detail as necessary, adding a D/F loop aft of the aerial, etc.
14. Paint. Olive drab 41 above neutral gray 43 below. Black props and yellow tips. Note. R.A.F. aircraft were not camouflaged in the usual schemes but were flown as above, markings, codes, etc. added. Wheel discs were frequently brightly coloured  
R.A.F. markings-Roundels in four positions, fin flashes, as normal.  
18 Squadron R.A.F. Single pale blue letter on fin (not rudder) May-June 1944 Marciénise (Caserta) Italy appropriate letters R and K  
114 Squadron same period had red letters

Note. For A-20-D, J, H, and K models (Boston MkV) Sand off the nose transparency repolish and paint in new framing.

A-20-G (BOSTON MK IV) CONVERSION



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