A6M3 ZERO TYPE 22

Few weapons have ever debuted with such a shock as the A6M2 Type 21, also known as the "Zero" (taken from the last digit in the Japanese calendar year 2600, or 1940, the year the plane was accepted by the Japanese Navy). It was the first carrier fighter superior to all its land-based contemporaries. For the first six months of the War in the Pacific, the Zero struck fear into the hearts of Allied aviators; it was fast, agile, and packed a significant punch in its two 7.7mm machine guns and two 20mm wing-mounted cannon. It wasn't until the autumn of 1942 that new Allied tactics and equipment began to turn the tables on the Zero.

In its first combat, 12 A6M2s destroyed 20 of 27 Chinese fighters without a loss. Although the Chinese fighter force tried to avoid the new plane, the Zero continued to decimate its opposition in China, destroying 99 planes in the air without any air-to-air losses. American and British intelligence attributed this largely to the ineffectiveness of the aircraft the Chinese were using, but this assumption was shattered when Zeroes appeared over Pearl Harbor on Dec. 7, 1941 and the swept the sky of American and British opposition over the Philippines, Singapore and Malaya.

Powered by a 940-horsepower Sakae 12 engine, the Zero had a top speed of 331 mph. Designer Jiro Horikoshi employed every weight-saving measure he could, reasoning that every pound he saved would translate into increased maneuverability and a greater chance for triumph in the air. The Zero had an extremely light airframe, with things like armor for the pilot and self-sealing tanks left off to boost its maneuverability and emphasize its abilities as a dogfighter. It also gave the Zero another advantage: great range. Through fuel management, Zeroes of the Third and Hainan Kokutai (carrier based units) flew from Formosa to surprise American aircraft at Clark Field in the Philippines on Dec. 8, 1941, a round-trip of 934 miles.

This came the day after 125 Zeroes escorted the Japanese strike on Pearl Harbor. Following this devastating opening stroke, the Zero rampaged over Wake Island, Darwin, Ceylon, New Guinea and the Netherlands East Indies, totally outclassing the outnumbered Allied aircraft it was pitted against. At the Battle of the Coral Sea, the Zero came out on top in most engagements, and at Midway Zeroes butchered American torpedo planes, destroying 37 of the 41 TBD Devastators on the way to attack the Japanese fleet. But while the Zeroes shot down the TBDs, SBD Dauntless dive bombers struck three of the four Japanese carriers. In the end, Midway was a disaster for the Japanese. With 4 of their 6 fleet carriers sunk, it turned the tide of the war.

The A6M3 Zero Model 22 was equipped with an uprated Sakae 21 engine with a 2 speed supercharger enclosed in a redesigned cowling. It was fitted with additional fuel tankage in the wings, increasing the range by 100 miles; extremely important for a fighter that flew long missions over the sea. Ammunition for the wing mounted 20mm cannons was increased. The weight of the additional fuel and ammo cancelled out the increase in power, and the hoped for improvement in performance was not realized. Still, the Zero was a fierce opponent in the hands of a good pilot. Versions of the Zero continued in production for the duration of the war, with 10,449 built before Japan's final collapse.

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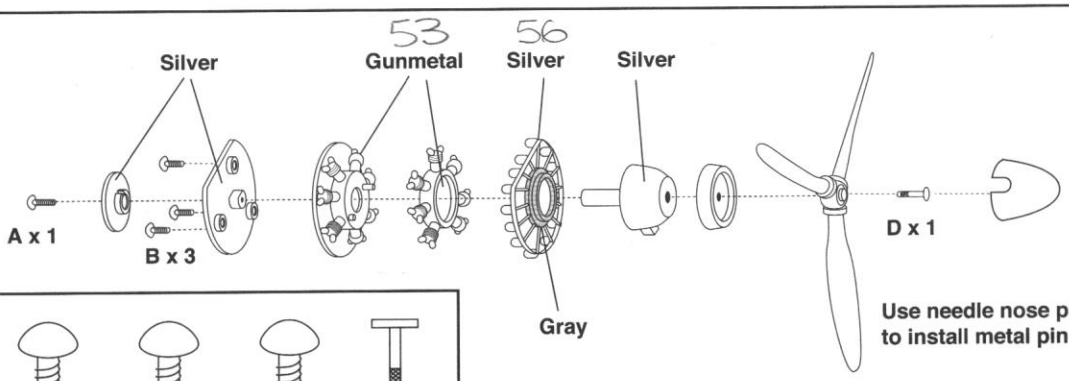
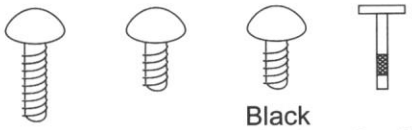
1



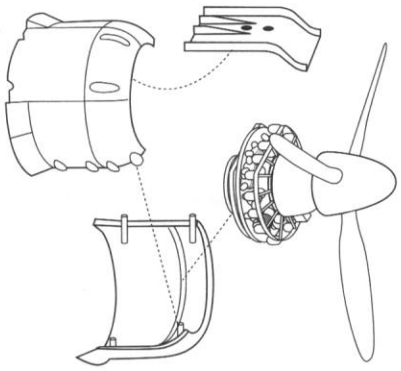
Use needle nose pliers to install metal pin 'D'.

Do not cement



2

Attach duct to upper cowl before installing engine



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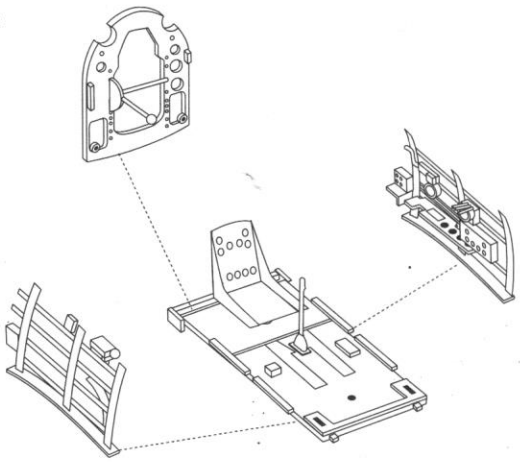
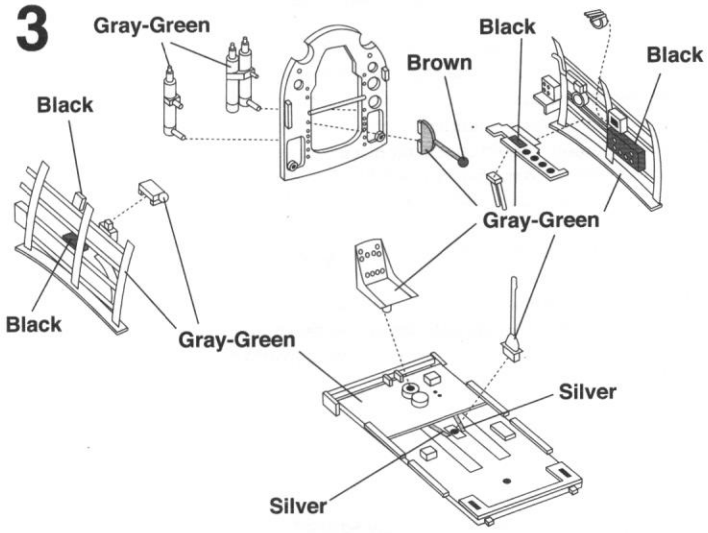


3

Tank pieces install to rear of bulkhead



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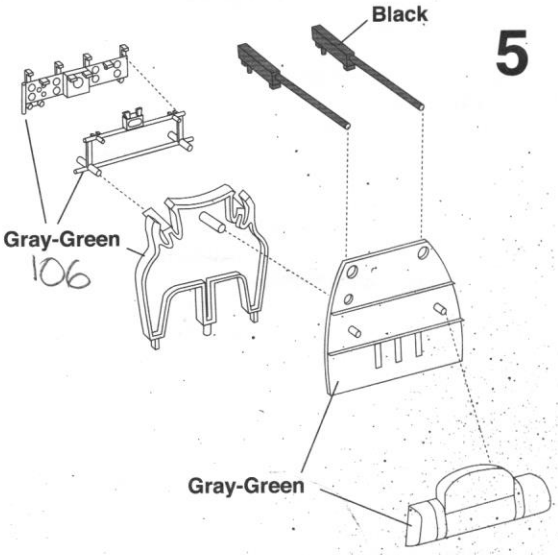

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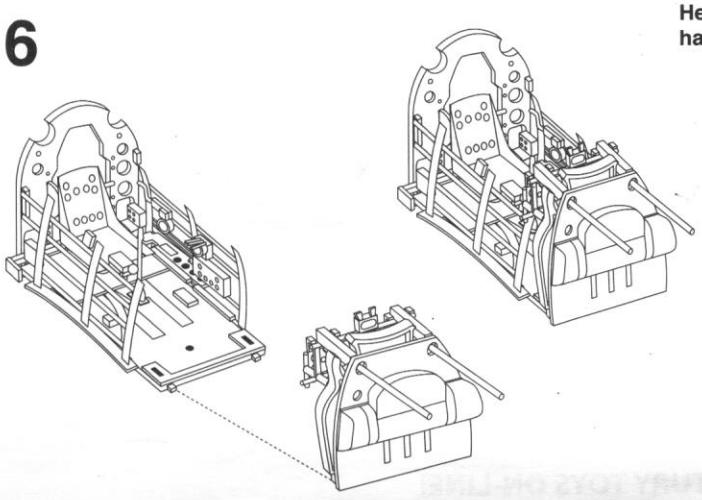
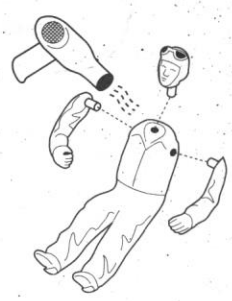
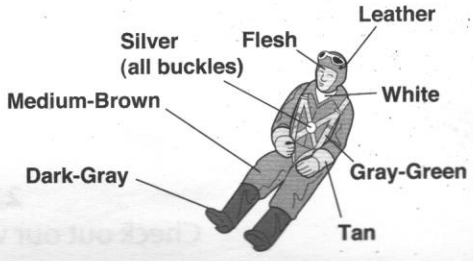


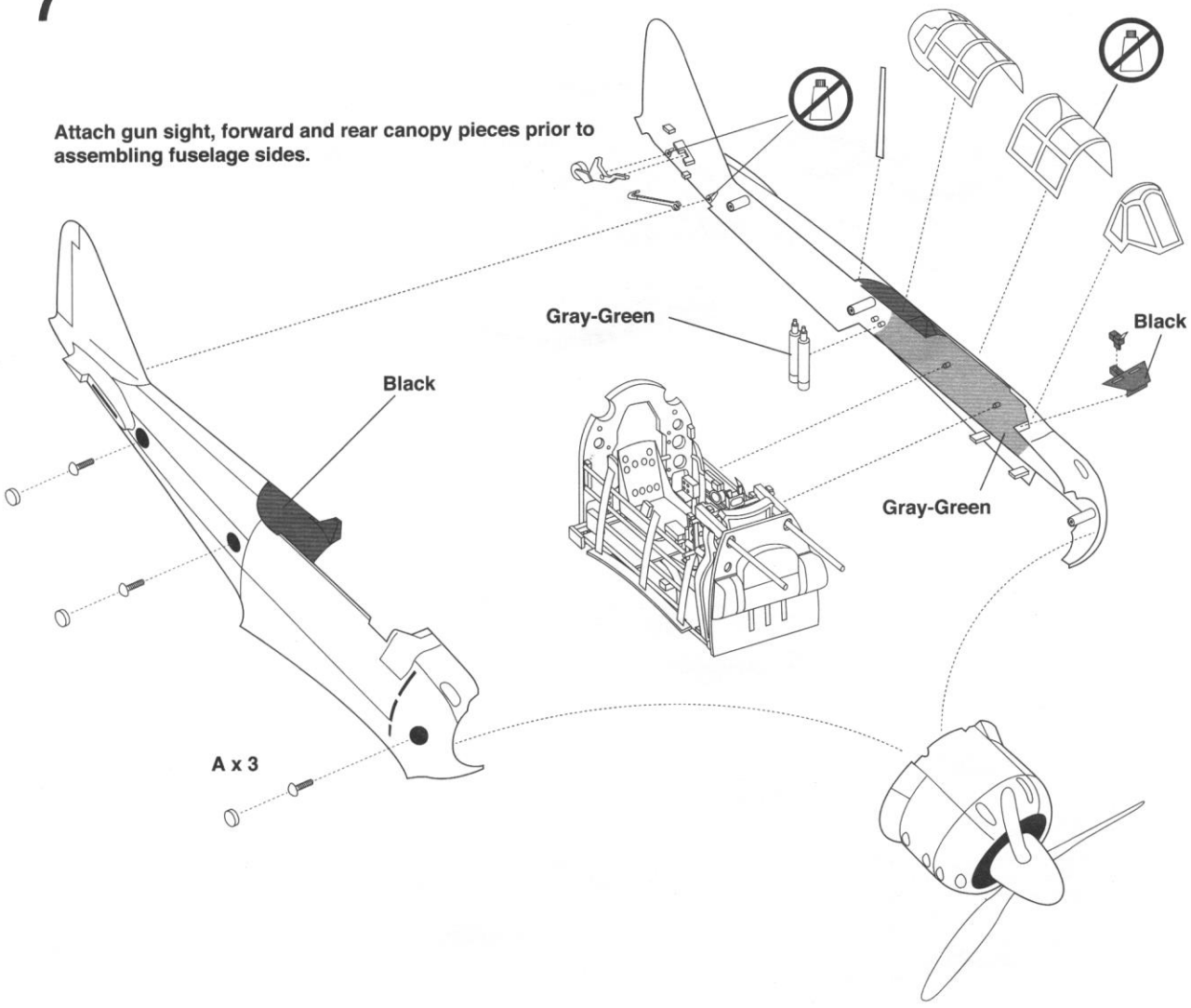
Heat parts gently with hairdryer to ease assembly.





7

Attach gun sight, forward and rear canopy pieces prior to assembling fuselage sides.



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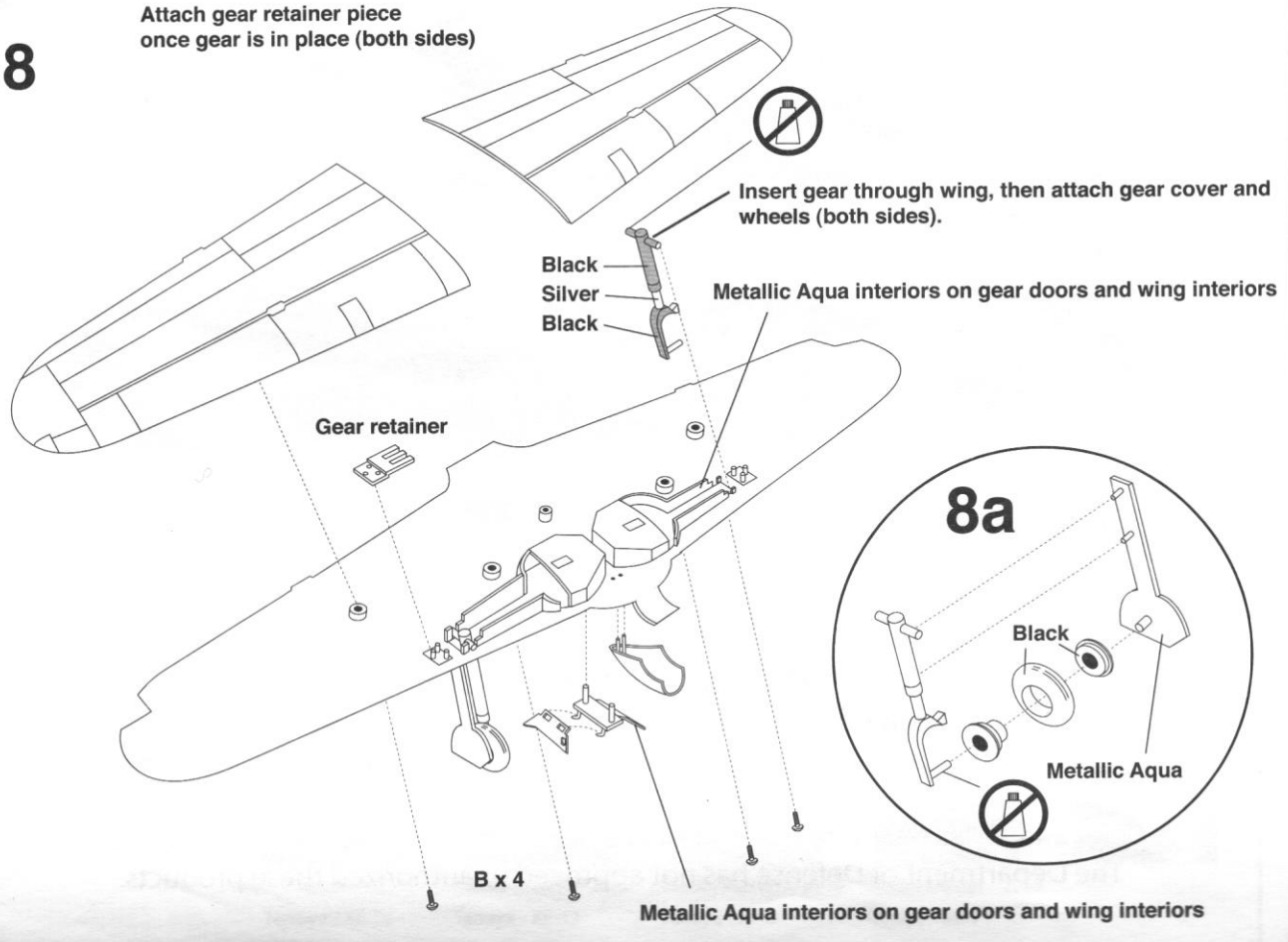
Attach gear retainer piece once gear is in place (both sides)



8a

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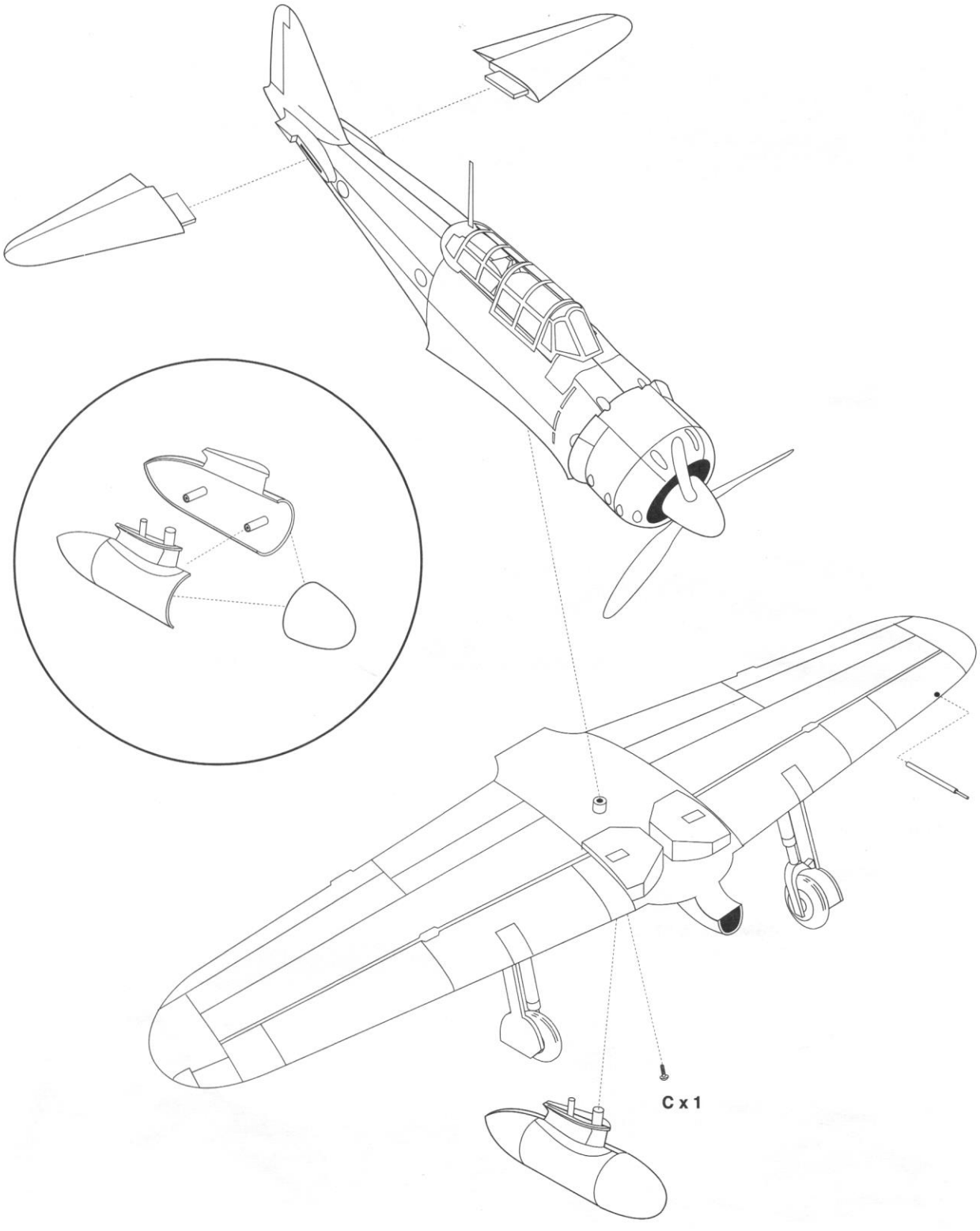
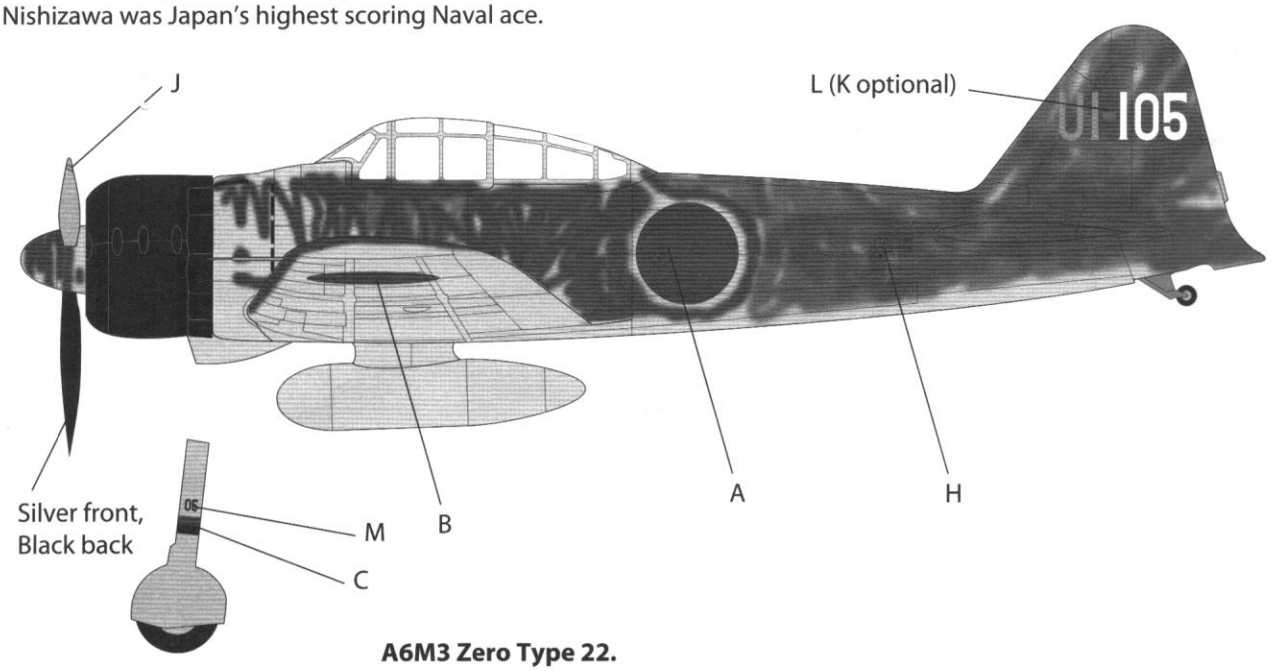
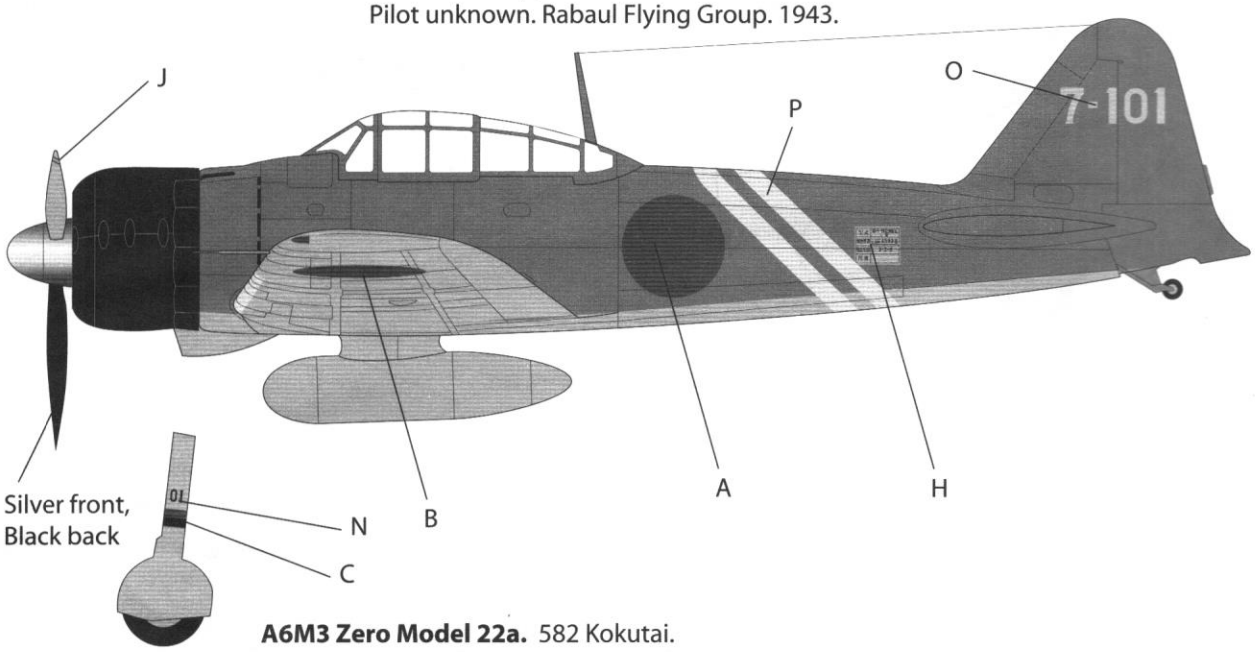


As with all screw assemblies on this model, cover the bolt holes with their applicable cover pieces when finished.

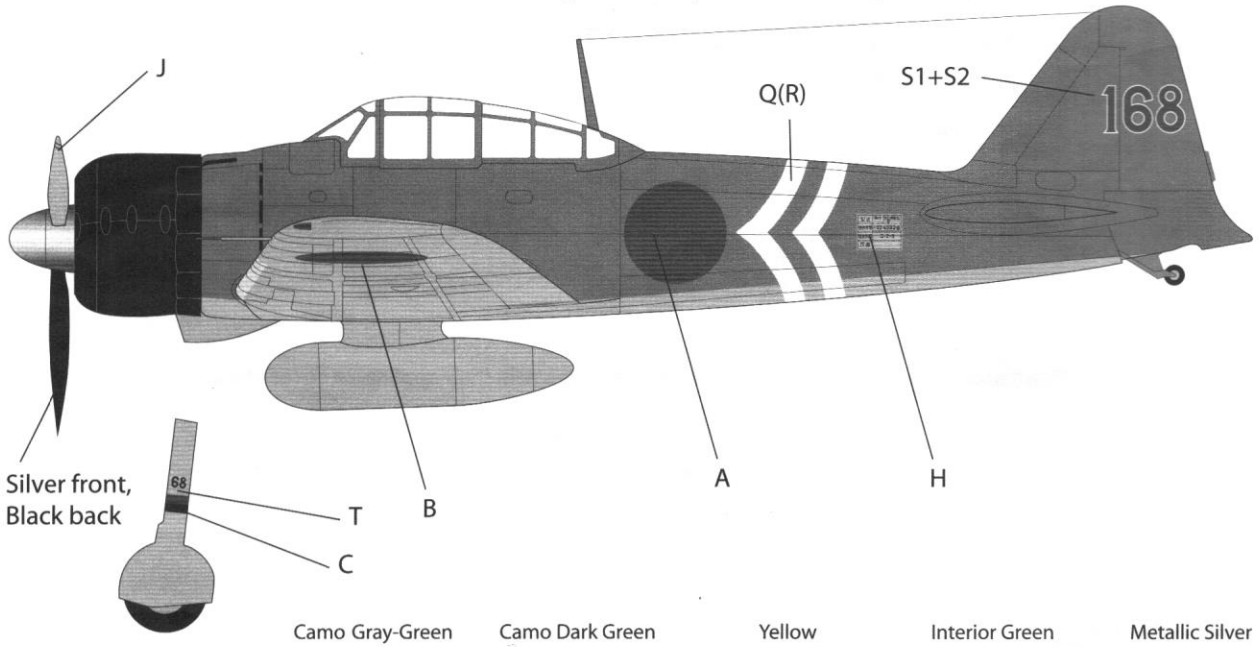
A6M3 Zero Type 22. Flown by CPO Hiroyoshi Nishizawa of the 251st Air Group. Tainan, Formosa 1943. Nishizawa was Japan's highest scoring Naval ace.



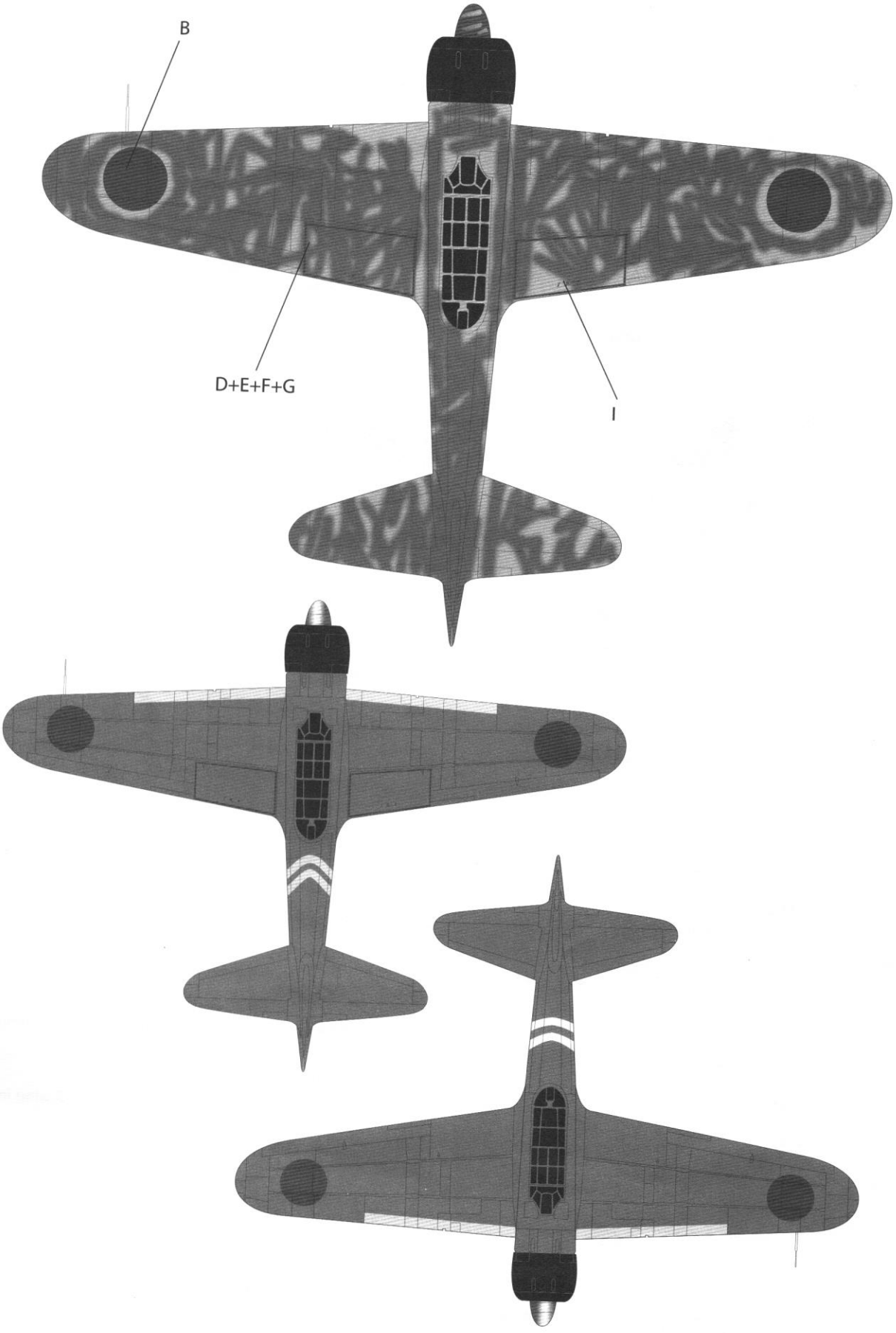
A6M3 Zero Type 22.
Pilot unknown. Rabaul Flying Group. 1943.



A6M3 Zero Model 22a. 582 Kokutai.
Based at Kahili Airfield. Bougainville, Papau New Guinea, 1943



Camo Gray-Green	Camo Dark Green	Yellow	Interior Green	Metallic Silver
Model Master - 2115 Tamiya - XF-76	Model Master - 2116 Tamiya - XF-11	Model Master – 2118 Tamiya - XF-3	Model Master - 2062 Tamiya - XF-71	



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The Department of Defense has not approved or authorized these products.

General Instructions for Model Building

1. Parts must be assembled using plastic model cements. Tube and liquid cements are recommended. Liquid cements are preferred by experienced model builders, and can be applied with a fine natural hair paint brush. Cyanoacrylate (Super glue type) adhesives also work well. Care must be taken when using adhesive.
2. Work in a well ventilated area and apply paints and glues with care. Do not breathe in paint or glue fumes or get model adhesives on your skin.
3. Model paints and glues are available at most hobby shops. There are many ranges of hobby paints available. Both enamel and water based acrylic paints are compatible with 21st Century Toys model kits. The painting guide calls out specific camouflage colors and gives . suggested matches from popular paint ranges.
4. Before painting your model, you may wish to wash the parts with dish soap diluted in water, to remove oils and dirt that might hinder paint adhesion.
5. The following tools and supplies are recommended to help make your model building better and easier:
    a. Tweezers. For handling small parts and decal application.
    b. Hobby knife and replacement blades. General cutting and trimming. (Caution: Blades are extremely sharp and should be used only with adult supervision)
    c. Multi-grit flexible nail files. Available from beauty supply and well stocked drug stores and hobby shops. Very useful for sanding seams and cured putty.
    d. Small scissors. For cutting out decals.
    e. A selection of hobby paint brushes. Available at most hobby shops.
    f. Wooden sticks (such as coffee stirrers) and reusable poster putty (available at most drug stores). Useful when painting and working on small parts. The part can be attached to the stick with a small piece of poster putty to ease handling. Part will be held securely, but can be easily removed without damage when finished.
    g. Masking tape. Recommended for masking during painting, and holding parts together when test fitting parts or after glue application.
    h. Model putty. For filling seams and imperfections.
6. Paint small parts and sub assemblies, such as cockpits and engines, before installing into model.
7. It is advisable to paint light colors before darker colors. For example, paint yellow propeller blade tips first. Let dry, then mask off yellow area and paint rest of blade black.
8. Experienced modelers wait to attach small parts such as antenna masts, gun barrels, and pitot tubes until the model is almost finished. This will protect these small parts from getting broken off during handling while working on the model.
9. Parts molded in flexible plastic (such as pilots and tires) can be heated with a hair dryer to make them more flexible. Tires will fit onto wheel hubs and arms will pop into their sockets more easily if warmed with a dryer.
10. There are many good reference books available through your local library, book store, or hobby shop. These books will help you to make your models look more like the real thing, as well as providing interesting historical background information.
11. There are a number of excellent websites on the internet that will provide much valuable model building hints and tips, reference information, product reviews, photos of completed and in-progress models, and inspiration. There are discussion forums on these sites where modelers of all abilities can ask questions. As with all websites, parents should check out discussion forums to determine if they are appropriate for children. Sites contain many links to other sites of interest to modelers. The following websites are recommended:
    a. www.hyperscale.com An excellent site featuring aircraft and armor models. Lively discussion board and a large gallery of expertly built models make this a must see.
    b. www.aircraftresourcecenter.com Contains numerous product reviews, extensive model galleries, and photo walkarounds of real airplanes.
12) The International Plastic Modeler's Society (IPMS) is an international non-profit organization dedicated to the promotion of plastic model building. There are local chapters in 49 of 50 states with monthly meetings. You can join online, and membership includes a subscription to an excellent modeling magazine published 6 times a year. The website address is www.ipmsusa.org. The mailing address for membership applications is: IPMS/USA Dept. H PO Box 2475 N. Canton, OH 44720-0475.

Instructions for Applying decals like a Pro.

1. Before applying the decals, make sure that the model is clean and dust free.
2. Apply a clear gloss coat (available at hobby shops) to the model. Allow to dry overnight. Alternately, Future floor wax (available at grocery stores) can be sprayed or applied with a soft wide brush. It will dry overnight to a hard, clear gloss that will give a good base for applying decals.
3. Cut out each individual marking as needed. Submerge the decal in warm water for 20 to 30 seconds.
5. Hold the backing paper using a pair of tweezers and slide the decal off the paper onto the model using a soft brush. Use a clean brush for this purpose.
6. Carefully remove the excess liquid from the decal, again this can be done with a brush or by blotting lightly with a lint free cloth.
6. When decals are completely dry (overnight), carefully clean off the excess decal adhesive with a moistened paper towel.
7. When dry, coat with clear gloss and set aside for at least 12 hours. Inspect your work, making sure there is no silvering. Silvering is air trapped under the decal film that catches the light and looks silver from some angles. If this happens, prick the area with a pin or the tip of a bobby knife and brush on some decal solvent (available at local hobby shops) which will help the decal settle down.
8. When dry, the final clear coat (flat, satin, or gloss) can be applied. If done properly, your decals should look painted on.