yellow tail tip



P-40N Warhawk Checker tailed Warhawk flown by Capt. Richard J. Vodra, 8th Fighter Squadron in New Guinea during 1943. This P-40N carried two kill markings. Finished in Dark Olive Drab #41over Neutral Gray.



P-40N Warhawk with a blue diamond checkered rudder flown by Lt. John Miller of the 7th Squadron over New Guinea in 1943. Finish is Dark Olive Drab #41 over Neutral Gray. The spinner is painted to match diamonds on the rudder.



P-40N-25 Warhawk flown by Lt. Joel B. Paris of the 7th Fighter Squadron. Paris finished the war with nine confirmed kills. Markings include white tail and leading wing edges. Dark Olive Drab #41 over Neutral Gray.

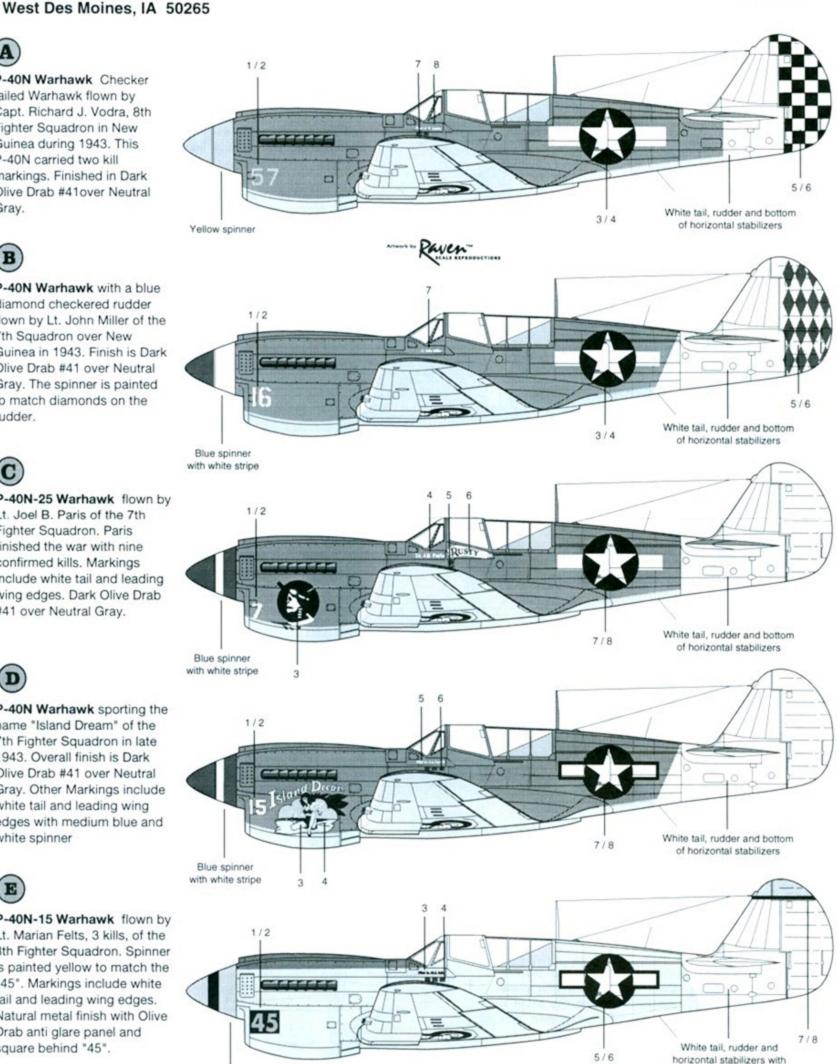


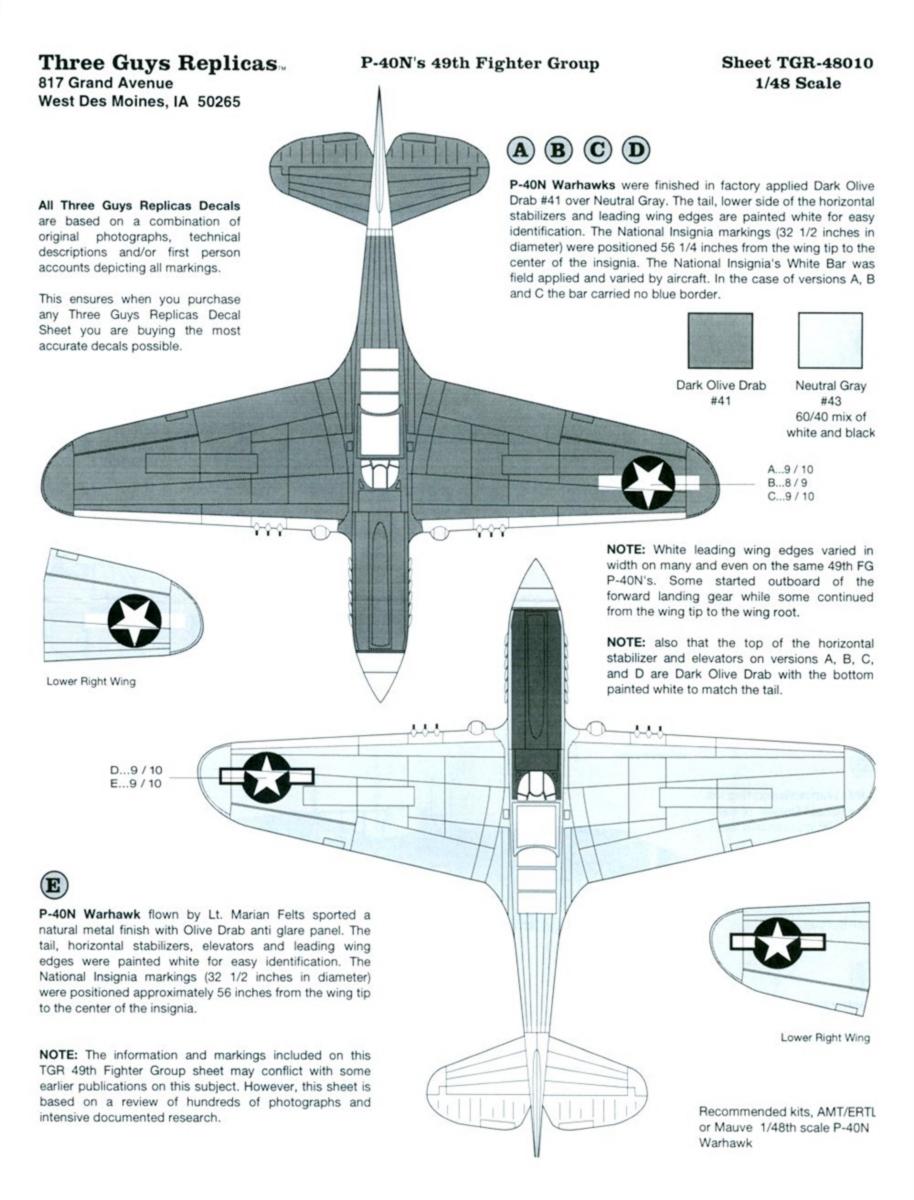
P-40N Warhawk sporting the name "Island Dream" of the 7th Fighter Squadron in late 1943. Overall finish is Dark Olive Drab #41 over Neutral Gray. Other Markings include white tail and leading wing edges with medium blue and white spinner



P-40N-15 Warhawk flown by Lt. Marian Felts, 3 kills, of the 8th Fighter Squadron. Spinner is painted yellow to match the "45". Markings include white tail and leading wing edges. Natural metal finish with Olive Drab anti glare panel and square behind "45".

> Yellow spinner with black stripe





## 49th Fighter Group P-40 Camouflage and Markings

The 49th FG is one of the most colorful U.S. units of WWII, and had one of the proudest and most intense combat records of any U.S. unit anyplace. The 49th was at times stationed little more than a 10-minute flight from Japanese bases. Many missions were planned on the hood of a jeep just prior to climbing into the aircraft and taking off. A new book by Steve Ferguson named "Protect and Avenge; the 49th Fighter Group in WWII", to be published by Shiffer and probably out in mid-summer of 1995, provides some of the most extensively-researched and illustrated information about a military unit ever published, and certainly the most accurate and extensive information EVER published about the 49th FG.

The 49th had a number of markings nuances peculiar to the 49th. REAL combat aircraft were a mishmashed pattern of different colors, dirt, grime, grunge. This is especially true of aircraft in the Pacific as they suffered from the added effects of bright tropical sunlight, dirt, grime, salt water, coral dust, endless rain, and constant combat. Most of the paint used for individual aircraft markings was black market, acquired in trade. The reds, yellows, blues mostly came from the Royal Navy and the RAAF. When U.S. aircraft first arrived in Australia in Melbourne, Sidney, etc., they were assembled, then flown to Townesville to be combat fitted with guns, radios, etc., then received some sort of unit markings. The Air Corps had nothing but Dark Olive Drab 41 and Neutral Gray, so the only pastel colors available were from RAAF or Royal Navy sources. For instance, red spinners were rarely enamel, but were a RN lacquer "primer" as the British called it. It had very little pigment in it but was more of a glazing. This red was a very deep, crimson cherry red and had an almost mirror-like finish. It faded out very, very rapidly, turning to a russet color, making them appear about the same color as the Olive Drab as they faded. The 9th Squadron used this plain red spinner throughout the war, and the early reds of the earliest P-40s had this British color. The 7th Squadron used a light blue, so pale in color as to imply the spinner was polished metal. This was a British Navy or Australian color as well, and was used in early in the Papuan campaign of 1942-43. 8th Squadron aircraft used yellow, not orange. This yellow faded rapidly and allowed the Dark Olive Drab 41 beneath it to bleed through, making them look darker in b&w photos and probably Later in the war the U.S. leading to the misidentification. started to provide pastel colors of their own.

At least half of the early P-40Es used by the 49th were commandeered from RAF production lots nationalized by the U.S. at the start of the war. By the Papuan Campaign all remnant P-40Es appear to be RAF commandeered aircraft and all have the two-tone camouflage. The P-40Ks used by the 49th were approximately half-and-half two-tone RAF scheme and OD over Neutral Gray. Many early P-40s were delivered to Australia in the two-tone with RAAF or RAF roundels, and they were painted out with OD or whatever color was available. When the U.S. cocardes were reapplied, they were placed in non-standard locations and in non-standard sizes, sometimes covering up the Dark Olive Drab circles and sometimes not.

Having examined hundreds of photos of 49FG aircraft, there is no evidence whatsoever of ANY P-40Ns being painted in two-tone colors, certainly not in the 49th FG or, as far as I can tell, anyplace else. Thus, the two-tone scheme shown on both Vodra's "Squirrelbait 57" and Joel Paris' "Rusty" in the Squadron Signal book are totally spurious. Photos both within that book and other contemporary photos as well as discussions with pilots - support this. Indeed, there was no such aircraft as Vodra's P-40N "Squirrelbait 57". His earlier P-40E, flown for only a couple of weeks in May, 1943,

was so named, but his N was neither a two-tone nor did it have the name. Unfortunately, this lack of accuracy affects nearly all the color plates in this book, and many of the black and white captions.

The P-40Ns of the 49th also carried large fuselage cocardes (star-in-the-circle) in non-standard locations. This was apparently a peculiarity to the N-5s coming from the factory in the U.S. The original production bloc aircraft that arrived at the squadrons in July, 1943, for the 7th and 8th Sq. only, have the oversized cocarde and the white bar with no blue surround and no white tails. They carried the serial numbers across the tail in yellow and had the green disruptive pattern. Sometime in August, 1943, the white fin and rudder were applied in theater during operations; sometimes the leading edge of the wing was also covered, but the tops of the horizontal stabilizers were left OD.

Later-issue P-40Ns which arrived in Sept. or Oct of 1943 carried the smaller red-surround star and bar in all four positions. Except for the upper wing marking, those markings were retained throughout the remainder of those aircraft's service career (as late as May, 1944). A third bloc of P-40Ns arriving in January, 1944, appear to have had a number of -15 and -20 aircraft, and it was these that arrived with the standard ALL were OD and gray star-and-bar blue surround. WITHOUT EXCEPTION. After the capture of Hollandia in May, 1944, a large maintenance unit moved into Hollandia, and provided complete repair services, including a painting specialty unit that often completely stripped P-40s of all surface camouflage. By late June or July of 1944, the 49ers were receiving reissued, refitted P-40Ns for service, denuded of any camouflage, and retaining the white tail and fin, which at this point often included the top of the horizontal stabs. It was at this time that some camouflaged aircraft had the tops of their horizontal stabilizers painted white as well. Sometime in 1944, a white stripe encircled the blue spinners of 7th Sq. aircraft, and a black stripe encircled the spinners of 8th Sq. aircraft. There were always exceptions.

Another common feature of this unit was the use of pre-war style flight and command stripes around the rear of the aircraft. Flight leaders', squadron commanders', group commanders' aircraft were typically marked with the appropriate color and number of stripes. This happened throughout the war, on P-40s, P-47s and P-38s.

Three Guys Replicas is pleased to provide you with a taste of Steve's new book. We believe that when you spend your hard-earned money you expect someone to have done their homework. Three Guys is proud to go that extra step to ensure accuracy, rather than take previous work at face value.

Thank you for your business.

## USAAC/AAF NEUTRAL GRAY AND DARK OLIVE DRAB 41/ANA613

## **NEUTRAL GRAY 43**

Neutral Gray 43 was a 50/50 mix of white and black.

In 1942, meeting as the Army-Navy-Aircraft Board (ANA) the services were trying to reduce the number of colors being used. A replacement was being sought for Extra Dark Sea Gray(British), Neutral Gray and Blue Gray (USN). A color slightly lighter and bluer than Neutral Gray was chosen to replace all, and called Sea Gray. Sea Gray is indistinguishable from Neutral Gray in black and white photos of the time. However, color chips for the new paint, Sea Gray, weren't produced until March, 1943, and the numbers weren't officially assigned until June, 1943.

In the meantime, the Army Air Force continued to buy Neutral Gray 43 and the paint manufacturers continued to pump out Neutral Gray. What is obvious from both color and black and white photos is that there was at least one paint manufacturer who never got it quite right and was producing a shade of Neutral Gray that was far lighter than the standard (tone was lighter than EITHER Neutral or Sea Gray).

In September, 1943, the order is given for all combat aircraft to be produced in natural metal as of October, 1943. Orders were to use up whatever stocks of paint were on hand until gone, resulting in aircraft coming out of the factory with various parts natural metal and some camouflaged. The depots or units were to decide whether to strip or paint. The two exceptions to this were B-29s and P-38s, as it was felt that their designs were so streamlined that the paint would be a contributing factor to their speed, and thus all were to be stripped of paint in the factory.

For modeler's purposes, the best place to start is with a 60/40 mix of white-to-black.

## DARK OLIVE DRAB 41

The U.S.'s original olive drab was an outgrowth of RFC green, the WW1 color used by the British on their aircraft which really wasn't green anyway. Most, if not all, Air Corps OD's were variations on that original theme.

In 1938, the Army Air Corps decided their standard olive drab camouflage color was too light. They added black to it to produce Dark Olive Drab 41.

Comes the war and the ANA discussions outlined earlier. Paint manufacturers are producing dark green paint for British schemes, and Dark Olive Drab 41 for the USAAC/AAF. The decision was made to dump British dark green as existing stocks ran out and substitute Dark Olive Drab 41. Everyone agrees, everyone is happy. **This** color is to be called Olive Drab and paint chips and new numbers were to be assigned (even though it would still be the same standard as Dark Olive Drab 41).

Following that decision, someone else gets involved behind the scenes, most likely Army Material Command. They get to someone in the brass - no one knows who yet - and make the argument that the ground-pounder Army is using a LOT of OD and why not pick theirs! (Even though it is lighter and the decision has already been made to go with a renamed but still-the-same Dark Olive Drab 41). Whoever this person was, he got talked into using the Army Olive Drab and thus, when the new ANA color chips came out in March, 1943, they were a

lighter shade of olive drab than agreed upon - NOT just a renamed Dark Olive Drab 41, but completely different.

The USAAF is surprised and not very happy. Rather than argue, they just chose to ignore the chips, and ordered paint manufacturers to continue to match the Dark Olive Drab 41 paint chips. Thus Dark Olive Drab 41 was still being produced (although in drastically reduced amounts) in 1945 for AAF aircraft and they were still being painted with it (liaison ac and some others were still being painted). Nearly any Olive Drab used through 1946 was probably Dark Olive Drab 41, and NOT a match for what we know as color ANA613. One exception was very late (post mid-1944)

A-20G/Hs and J/Ks. The Russians still wanted their aircraft camouflaged, but Douglas and its suppliers had effectively run out of the Dark Olive Drab 41, and switched to a lighter shade of Olive Drab, probably a close match to the Army standard that was identified on the ANA613 chips.

In the meantime, paint manufacturers were scrambling in the early war to find cheaper, faster ways to produce all the DOD 41 that needed to be produced as the paint had seven separate pigments in it. Cadmium was widely used as a paint/color stabilizer. However, cadmium was needed for the production of armor plate and the paint manufacturers lost out.

Thus you had paint that technically matched the Dark Olive Drab 41 paint chip when it rolled out the door and was painted on an ac part, but was less stable and had any number of different pigment combinations, even from batch to batch from the same paint manufacturer. Each aircraft part was assigned a specific paint manufacturer's - Dupont, etc. - olive drab for subassembly painting (keep in mind that the paint differed even from batch-to-batch in what went in it), and cloth control surfaces were doped. Thus an aircraft might look OD, but was covered with paints from different manufacturers each using different mixtures to match the spec.

As a result of all this, each paint would fade at a different rate to a different base color. So you could have pinkish outer wing panels, purple horizontal stabilizers (plus don't forget the different OD effect on fabric control surfaces as they were doped!), and a brown or khaki fuselage.

So the next time you see a model painted in FS34087, it is almost assuredly wrong; and if it is beat to hell and covered with some god-awful mixture of various shades of brown, pink, purple, etc. (FS34086 mixed with some red and yellow, is sort of a start for Dark Olive Drab 41, Pactra Flat Roof Brown with some Pactra Anti-Glare Green is even better), it is probably much more accurate. For out-of-the-bottle close matches, Humbrol 108 and Xtracolour X111 are considered to be acceptable for new Dark Olive Drab 41, according to color expert and noted author Bob Archer. Bob's new book, "The Official Monogram U.S. Army Air Service & Air Corps Aircraft Color Guide", is to be published by Monogram Aviation Publications later this year.

Three Guys Replicas would like to thank Dana Bell, whose long-anticipated USAAC/USAAF Colors, Vol. 3., should be available from Squadron Signal towards the end of 1995, noted aviation author Jeff Etheli, and Bob Archer for providing information, official documentation, a fine eye for detail and color photographs and slides in the development of this document. The assistance and guidance of these fine individuals and others around the world have helped make Three Guys Replicas decals the superior choice in accuracy.