

# Colors of U.S. Army Aircraft 1940-Present

## Part One: The Second World War

### Combat Aircraft

#### **Bulletin 41 (16 Sep 1940) Colors:**

At the outbreak of the war, all U.S. Army combat aircraft were painted in an overall camouflage scheme consisting of Dark Olive Drab 41 upper surfaces over Neutral Gray undersurfaces. These paints were lusterless (flat).

Markings were applied using the following colors: Black 44, Insignia Red 45, Insignia White 46, Insignia Blue 47, and Identification Yellow 48.

#### **ANA 157 Revision (28 Sep 1943)**

On 28 Sep 1943, ANA 157 came into effect, and this standardized the colors used by both the Army and the Navy. Due to the wartime rush to manufacture aircraft these changes were not in widespread application prior to early 1944.

ANA 157 impacted Army aircraft by slightly changing the two primary camouflage colors. Accordingly, Dark Olive Drab 41 was superseded by ANA 613 Olive Drab and Neutral Gray 43 by ANA 603 Sea Gray.

Colors for insignia and markings remained the same but received new ANA designations.

Cockpits, gun turrets, wheel wells, etc., were painted in Interior Green, which was standardized as ANA 611 under this revision. Propellers and hubs were to be painted ANA 604 Black.

\*Due to the elimination of camouflage as addressed below, which took place concurrently with the change of exterior colors, very few aircraft in the ETO ever used the ANA 601/ANA 603 scheme.

## Camouflage No Longer Required (3 Nov 1943)

The requirement to paint combat (with the exception of night fighters) aircraft in camouflage colors was dropped via a message issued by HQ AAF on 3 Nov 1943. This was due to a decreasing necessity for camouflage coloring, and to help speed production. Henceforth, all aircraft would be delivered in overall natural metal. This message permitted Theater Commanders to remove camouflage from existing aircraft at their discretion, and likewise did not prohibit Theater Commanders from retaining camouflage if it was thought desirable to do so. Non-metal aircraft or components were to be painted with aluminized paints.

### Color Cross-Reference

Color	Bulletin 41	ANA 157	FS 595
Dark Olive Drab	41	---	33070
Neutral Gray	43	---	36134 (approx.)
Black	44	604	37038
Insignia Red	45	619	31136
Insignia White	46	601	37875
Insignia Blue	47	605	35044
Identification Yellow	48	614	33538
Olive Drab	---	613	34088
Sea Gray	---	603	36118
Interior Green	---	611	34151

### Other camouflage colors

US Army aircraft in North Africa/Mediterranean theatre were authorized to be painted in a scheme consisting of Sand upper surfaces and Neutral Grey undersurfaces. This Sand color was designated as Sand 49 under the 1940 bulletin and ANA 614 Sand under the ANA 157 update in 1943. The FS 595 color is **FS 30279**.

Some aircraft, notably Curtiss P-40E's built for the British under Lend -Lease but later diverted to the USAAF retained the British camo colors which were applied at the factory. These P-40's flying with the USAAF in North Africa were painted in an upper surface pattern consisting of Dark Earth (FS 595 equiv. **30118**), Middle Stone (FS 595 equiv. **30266**), with undersurfaces of Azure Blue (FS 595 equiv. **35231**).

Night fighters were at first painted in the standard Dark Olive Drab 41/ Neutral Gray 43 scheme until late 1943, when they changed to Jet (gloss black), FS 17038.

## Training Aircraft

At the beginning of the war, trainers were painted in a scheme of fuselages in blue with yellow wings. Mid-war there was a change to an overall aluminized paint finish, but the blue/yellow scheme had returned later in the war. These colors are shown in the table below.

Color	Bulletin 41	ANA 157	FS 595
True Blue (later called Light Blue)	---	502	15044
Yellow	---	508	13538

## Invasion Stripes

Distinctive identification markings for Allied aircraft participation in the invasion of NW Europe were detailed in a Top Secret memo from SHAEF on 18 Apr 1944. This memo was kept closely guarded and released to relevant units only on the morning of 4 June 1944. This gave the units less than 24 hours to comply. The later postponement to 6 June gave them more time to get the markings on the aircraft.

This directive applied to all Allied aircraft which would be flying over or near the combat area. Four-engine bombers were excepted, apart from those employed as troop carriers or glider tugs. Night fighters were exempt as well.

These markings would be applied as follows:

*Single-engine aircraft* (1) Upper and lower wing surfaces will be painted with five white and black stripes, each eighteen inches wide, parallel to the longitudinal axis, in the order white, black, white, black, white. Stripes will end six inches inboard of the national markings. (2) Fuselages will be painted with five parallel white and black stripes, each eighteen inches wide, completely around the fuselage, with the outside edge of the rearmost band eighteen inches from the leading edge of the tailplane.

*Twin engine aircraft.* (1) Upper and lower wing surfaces will be painted from the engine nacelles outward with five white and black parallel stripes, each twenty-four inches wide, arranged in the order white, black, white, black, white.

(2) Fuselages will be painted with five parallel white and black stripes, each twenty-four inches wide, completely around the fuselage, with the outside edge of the rearmost band eighteen inches from the leading edge of the tailplane.

National insignia were not to be covered, in whole or in part, by the stripes.

\* *Liaison Aircraft*: On 16 May 1944, LTG Omar Bradley requested that this order be modified as regards to “Liaison (CUB-type) aircraft”. This request was for the width of the stripes to be reduced from 18 inches to 8 inches. The reason for this request was the excessive weight of the paint and the difficulty in concealing the aircraft while on the ground in the forward area. This request was approved the next day. The reduced-size markings applied to Piper L-4 aircraft only. Stinson L-5’s carried the full-size stripes.

## Part Two: Postwar/Korea

US Army fixed-wing and the increasing numbers of rotary wing aircraft gradually moved to an overall Olive Drab scheme after the war. This began after the USAAF split off to become the new US Air Force. The FS Color was **14087** (gloss) and **34087** (lusterless). This color no longer appears as such in FS 595, as this color and number was deleted when the new, lighter and browner OD for Army aircraft was developed during the Vietnam War. This postwar OD was later re-designated as FS **14084** (gloss) and FS **34084** (lusterless) in Change 7 to FS 595c in 1984. Thus, FS **14084/34084** is the correct color for overall OD aircraft until the change to the lighter color in 1967.

Cockpits, wheel wells, etc., continued to be painted in FS 34151, Interior Green.

Markings were applied in full-color.

Colors for insignia and markings were standardized under the FS system during this period.

Gloss/Matt

Insignia Red	FS 11136/31136
Insignia White	FS 17875/31875
Insignia Blue	FS 15044/35044
Identification Yellow	FS 13538/33538
Black	FS 17038/37038
Instrument Black (semi-gloss)	FS 27038
Olive Drab (exterior)	FS 34087 ( FS 34084 in current FS 595)

## Part Three: The Vietnam Era

At the start of US involvement in the Vietnam War, all US Army combat aircraft retained the same overall scheme as described previously in the Postwar/Korea section. National insignia and markings were full-color.

Following the experience gained during the first few years of combat it was decided that a change to this scheme was warranted. This applied especially to rotary wing aircraft, which were operating at low altitude where the hi-vis markings were a definite handicap.

Accordingly, a new color was developed for aircraft. This was a lighter, browner shade than the standard Olive Drab then in use by both aircraft and ground vehicles. By late 1966 this color was being applied to rotary wing aircraft. Markings were changed as well. The large ARMY and the full color national insignia were eliminated, to be replaced by "UNITED STATES ARMY" applied in lusterless black on tailbooms. All other markings such as serials and data stenciling was likewise done with lusterless black.

This change in the overall Olive Drab color for aircraft created a situation in which there were briefly two shades of FS 34087: the new, lighter color for aircraft and the older, darker OD. In 1967, the color chip for FS 34087 was changed to the new lighter color. Needless to say, this caused some confusion, as there were still lots of existing stocks of the "old" FS 34087! However, this all went away in 1974, when Olive Drab FS 34087 was eliminated altogether from the FS 595. This shuffling was due to the introduction of the MERDC camouflage scheme for ground vehicles, which used FS 34079 as the green element. The new, lighter aviation color was then re-designated as FS 34088, as it remains today. Thus, the correct, current FS 595 color for Army rotary-wing aircraft from 1967 until the change to the current colors is **FS 34088**.

Interior colors for cockpits and cabin areas also changed early in this era, changing from Interior Green to FS 36231 Dark Gull Gray. New-build helicopters (UH-1, CH-47) were delivered with this interior color. Existing aircraft cockpits were generally not repainted.

<b>Olive Drab (post-1966)</b>	<b>FS 34088</b>
<b>Dark Gull Gray</b>	<b>FS 36231</b>
<b>Black (lusterless)</b>	<b>FS 37038</b>

## Part Four: Present Day Colors

By the mid-1970's a search was on for new overall exterior color for Army rotary wing aircraft. The color chosen was a very dark green, FS 34031. By the late 1970's this color was

being applied to new-build helicopters. Existing aircraft were repainted in the new color in the normal course of events.

With the post-Vietnam emphasis on night operations, and the advent of night vision devices, cockpit and crew areas were now to be painted in FS 37038 Black (lusterless). Existing aircraft cockpits were repainted in this color.

Special operations aircraft alternately use FS 37038 Black (lusterless) as an overall exterior color.

The CH-47F Chinook is currently painted in a color which is the result of a search for a minimum-conspicuity monochrome scheme. The color is a light sage green, FS 34201.

Exterior data, markings, and serials are in FS 37038, Black (lusterless).

<b>Hello Drab</b>	<b>FS 34031</b>
<b>Black (lusterless)</b>	<b>FS 37038</b>
<b>Sage Green</b>	<b>FS 34201</b>