

THE DOUGLAS A-20B: an Anomalous HAVOC



By John S. Alcorn

A-20B, 41-3272, "9", "TUTU," 47th BG, 12th A.F., 1943, with strafing nose modification (two .50 caliber machine guns).
(Source unknown, author's collection)

A primary motivation for preparing this article is to finally clarify a basic misconception regarding the A-20B's configuration that has been perpetuated in aviation enthusiast publications ever since its WWII service days - that its nose section was the same as that of the DB-7 and DB-7A models. This has evidently arisen from the fact that all three models featured a stepped pattern between the glazing and the metal skinning. In fact, the nose section of the "B" was about 14 inches longer than that of these earlier models.

Of the 7,478 Douglas DB-7/A-20s constructed during World War II, the 999 B models were out of the mainstream in four significant respects:

- They were all built at Douglas' Long Beach plant, whereas most others were produced at Santa Monica, except for the 380 *Boston IIIs* that emerged from the Boeing Renton facility in 1941.
- Of the pre-G models, only the B was armed primarily with .50 caliber, rather than 0.30 caliber machine guns.
- Use of .50 caliber machine guns in the buried cheek positions forced redesign of the nose section, including lengthening from the 67 1/2 inches of the A and C models to 75.8 inches. This, featuring stepped clear panel framing, was the most distinguishing feature of the B model.
- The Bs were regressive in not being factory-fitted with self-sealing fuel tanks. Another external recognition fea-

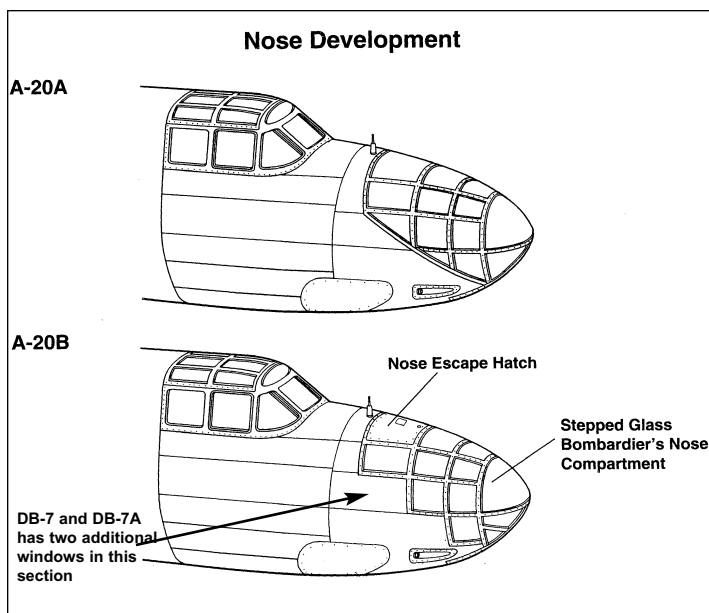
ture of most was the large filter carburetor air intake atop each engine cowling - shared by many C models, the P-70, and by the four-20mm nose cannon-equipped A-20Gs. This was replaced in later models by the over-wing fairing for the non-ram filtered carburetor intake.

Some equipment differences from other models were also evident in the cockpit.

The most distinguishing differentiating feature of the A-20Bs was the stepped-glass arrangement in the nose. As mentioned earlier, this was similar to the configuration of the DB-7 and DB-7A models, but can be distinguished for these aircraft by the solid panel located where the -7s have two small roughly square panes along the mid-line of the fuselage below the escape hatch. The A-20Bs also have three glaze sections extending back from the nose bubble while the DB-7s have only two. (See drawings on next page)

Another interesting feature of the A-20B was this version could be equipped with rearward firing .30 caliber machines in the engine nacelles. In practice, though, these were seldom fitted. Bomb bay modifications provided for better bomb carrying capabilities that included the Mark XIII torpedo or a 200 gallon auxiliary fuel tank for extended ferry range.

Only one USAAF unit employed A-20Bs operationally: the 47th Bomb Group that served with distinction in the Mediterranean Theatre (MTO) from December 1942 until their B models were replaced by Gs and Js, and then by A-26 *Invaders* beginning in late 1944. The 47th won a Distinguished



The A-20B is distinguishable from other aircraft of this model by the stepped-glass bombardier's nose compartment. While similar to the DB-7 and DB-7A, it is missing two small panes in the section just above mid-line and below the nose escape hatch.

Unit Citation (DUC) for its close support actions at Kasserine Pass on February 22, 1943, while part of the 12th Air Force, and commanded by Col. Fredrick Terrell. Later, as a unit of the Mediterranean Air Force, they moved to Sicily in August and on to Italy in September.

Most of the other A-20Bs were relegated to state-side training units, primarily due to the design deficiencies that included the lack of self-sealing fuel tanks. Eight were transferred to the USN/USMC as BD-2s where they were used primarily as high-speed target tugs. About 665 were destined for the USSR under Lend-Lease terms. Some of these were lost at



A-20B, "LANA" (Turner), 47th BG, 12th A.F., 1943. (T. Fellows, via R.C. Jones, via Ken Rust)

sea, but most were delivered via either the trans-Atlantic/Abadan, Iran, or ALSIB (Alaska/Siberia) routes. They performed yeoman service from autumn 1942 onward, including the defense of Stalingrad, with the Baltic and Black Sea Fleets and during the epic Kursk battles in July 1943.

The excellent selection of A-20 photos in the fine book *RED STARS 4* by Geust and Petrov includes a number showing the A-20B in Soviet service. Operational units cited in the photo captions include 13 GDBAP of the Black Sea Fleet Air Service, Spring 1944 (p. 91); 5 GMTAP, 1943 (p. 92); Northern Fleet, 1943 (p. 93); 109 BAP, 6 BAD, 17th Air Army, and Third Ukrainian Front (p. 95).

Of special interest are the series of photos on pages 112 and 113 showing installation of an MV -3 turret with a 20 mm



A-20B, 41-3241, "36" of 47th BG, 12th A.F., 1943. (Peter M. Bowers collection)



A-20B, 41-3148, "MISS BURMA," "34" of 47th BG, 12th A.F., probably Sicily, July / August 1943. (Ben Nieto via Ken Rust)



Close up of MV-3 turret on A-20B. This installation, in lieu of single flexible .50 caliber machine gun, was used operationally on many A-20Bs and early (pre-20) G models.

UBT cannon in the dorsal position, replacing the standard flexible .50 caliber installation. This was performed at the Research Institute of the Soviet Air Force (NII VVS). The modification was subsequently employed by operational airplanes, as evidenced in numerous published photos.

Sadly, no A-20Bs survive.

References

ASC Technical Order No. 01-40AC-2; A-20B (BD-2) Airplane: Erection and Maintenance Instructions, Douglas Aircraft Company, Inc., May 10, 1943.

Douglas Aircraft Company, Inc. Drawing No. 5093697: General Arrangement 3-view, Model A-20B. (Dimensioned. Draftsman: Poyas. Dated August 10, 1940)

Red Stars, Volume 4: Lend-Lease Aircraft in Russia, by Carl-Fredrik Geust and Gennidy Petrov. APALI OY, Finland, 2002.

Douglas Havoc and Boston: The DB-7/A-20 Series, by Scott Thompson. Crowood Aviation Series, 2004, Crowood Press, Ltd., Ramsbury, Marlborough, Wiltshire SN8 2HR, England, U.K.

A-20 Havoc in Action, Aircraft Number 144, by Jim Mesko. Squadron/Signal Publications, 1115 Crowley Drive, Carrollton, TX 75011. 1994.



A-20B, "CAMILLE," "57" of 47th B.G., 12th A.F., Tunisia, early 1943. (San Diego Aerospace Museum, via Peter M. Bowers)



Another view of A-20B, 41-2954, nr 284 at NII VVS, showing bombs on underwing shackles. (Red Stars Vol. 4 provided by C-F Guest to author)



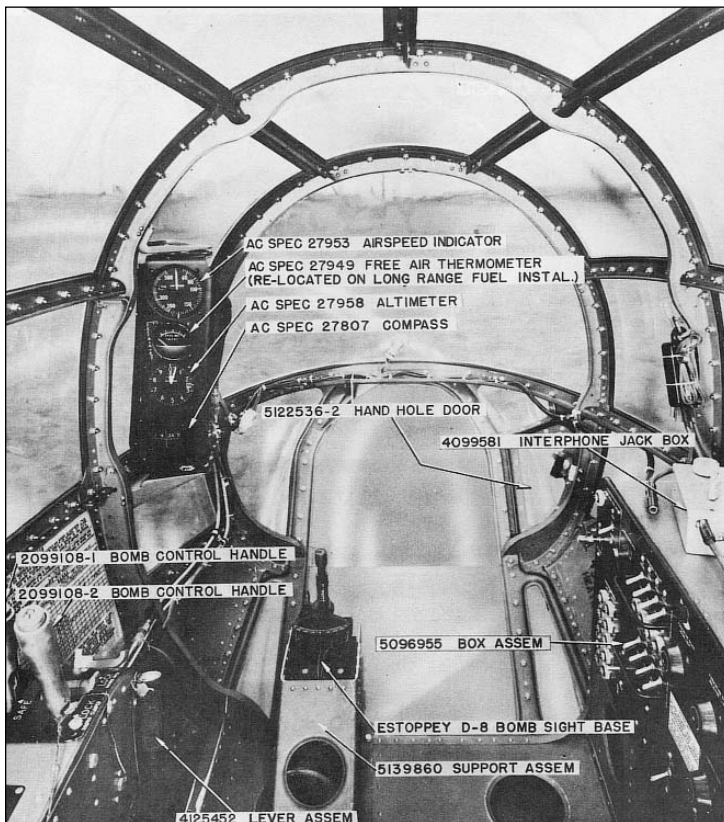
A-20B, 41-2954, nr 284/"29", inscribed "GVARDIYA," at NII VVS (Soviet Air Force Research Institute). Fitted with UBT 20 mm cannon in MY-3 dorsal turret. (Red Stars Vol. 4 provided by C-F Guest to author)



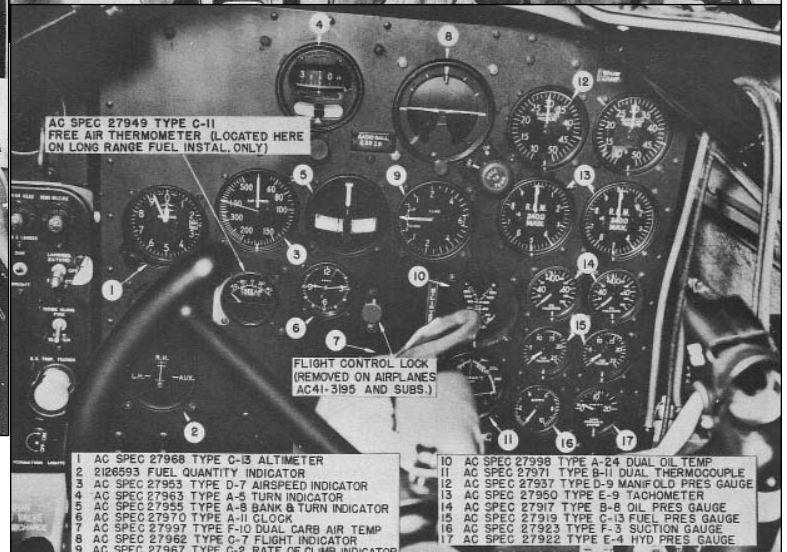
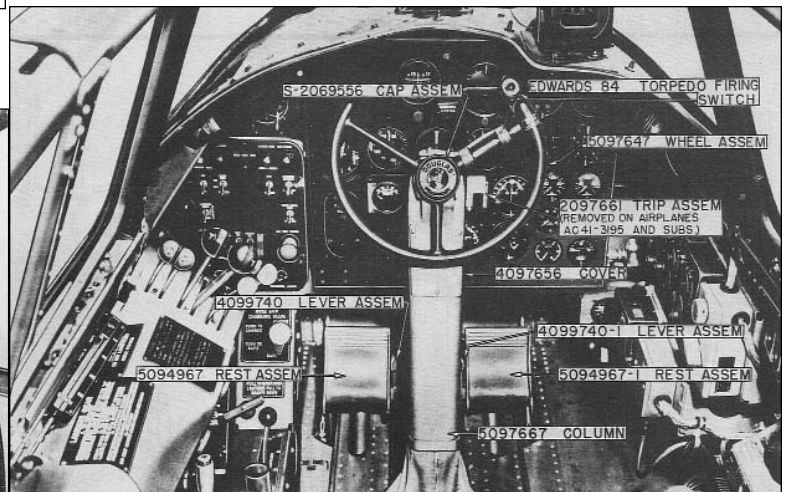
A-20B in white distemper paint at Voronezh Front, 26 April 1943. (Red Stars Vol. 4 provided by C-F Guest to author)

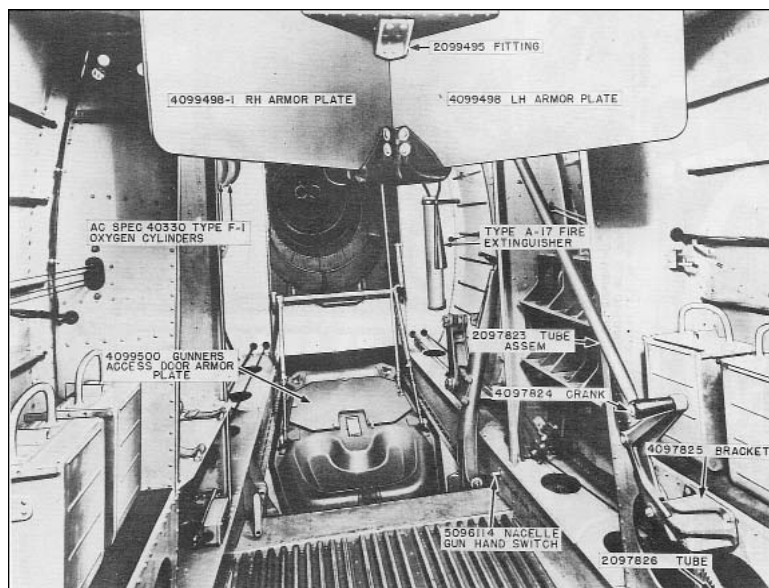


A-20B, 41-3014, "WAHOO" of 47th BG, 12th A.F., Tunisia, early 1943. (Imperial War Museum photo #NY6642)

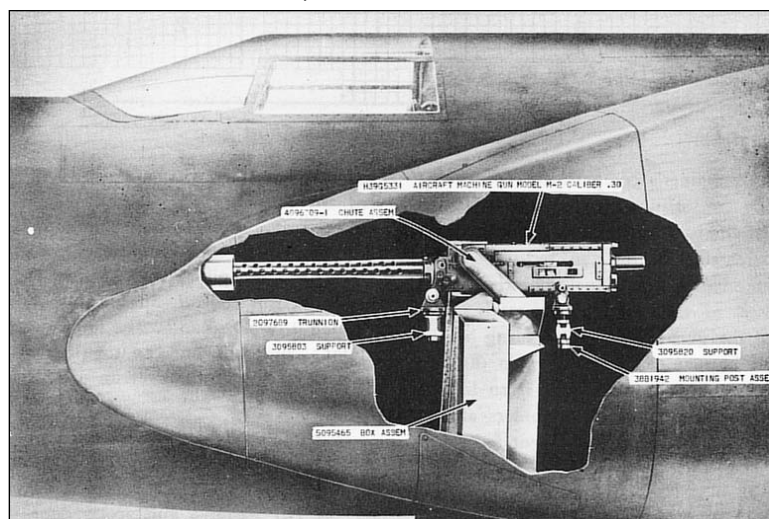


Bombardier's compartment (above), looking aft, and pilot's cockpit (middle and bottom right). (From Douglas A-20B Maintenance Manual)



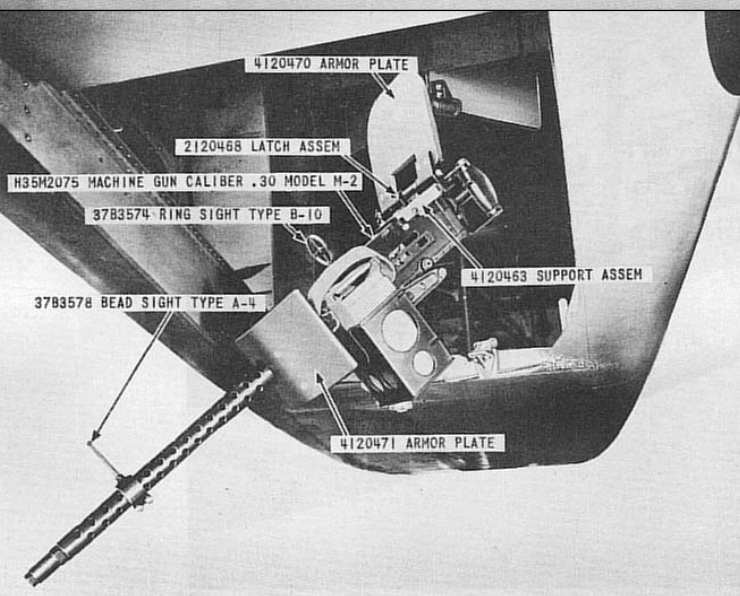
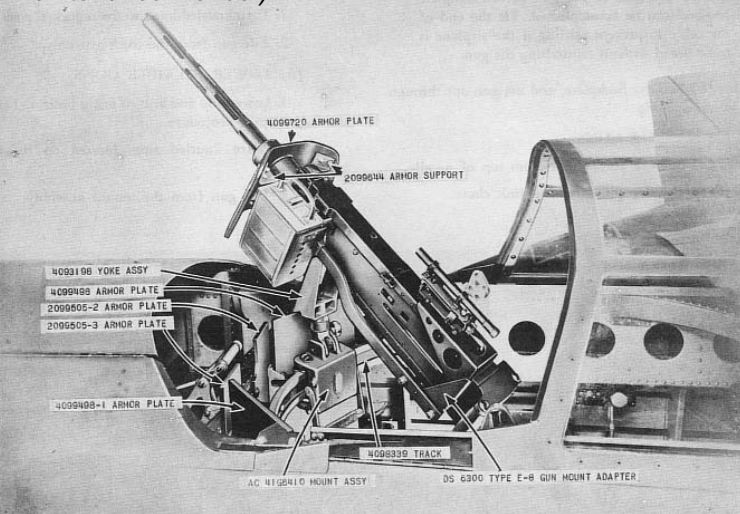


Gunner's compartment, looking aft. (From Douglas A-20B Maintenance Manual)

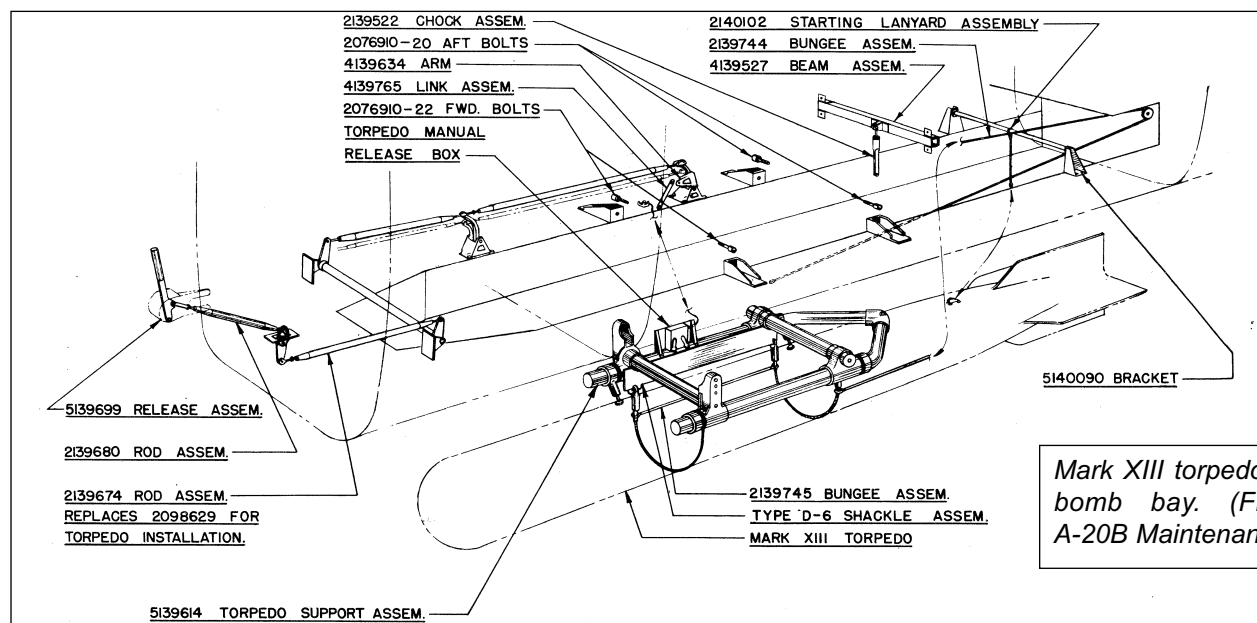


Aft facing .30 caliber nacelle machine guns - were seldom installed on aircraft. (From Douglas A-20B Maintenance Manual)

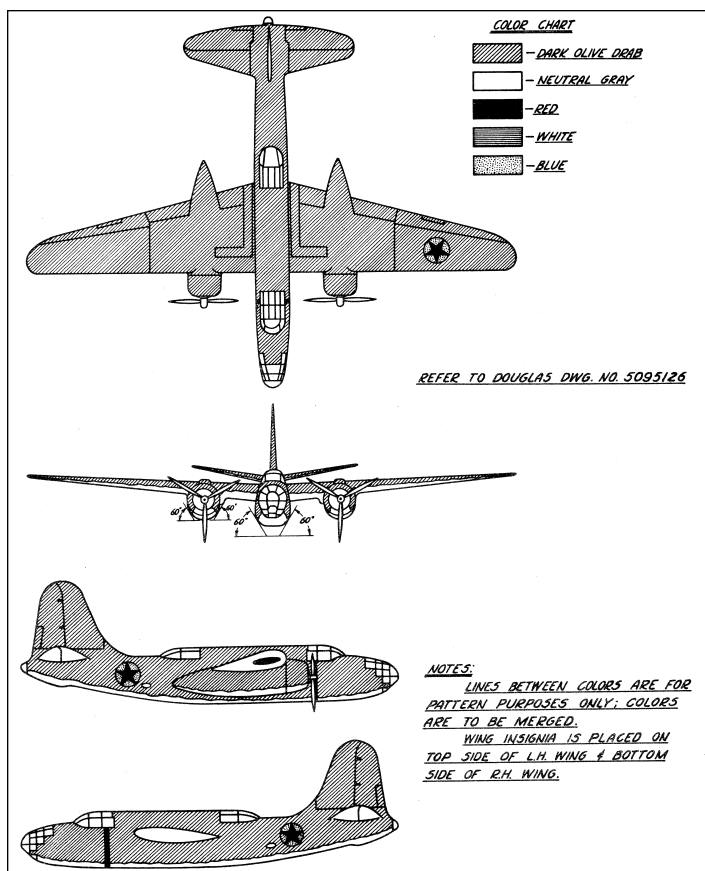
Upper flexible gun in firing position. (From Douglas A-20B Maintenance Manual)



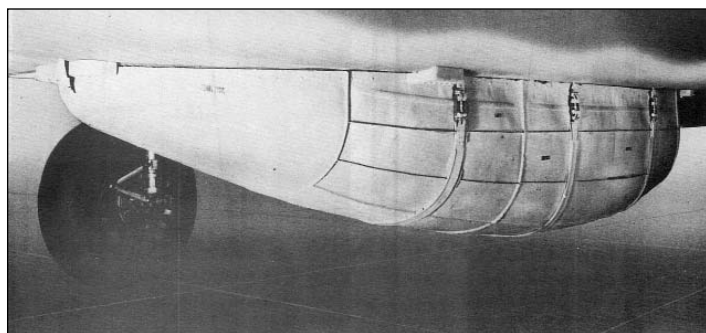
Lower flexible gun in deployed position. (From Douglas A-20B Maintenance Manual)



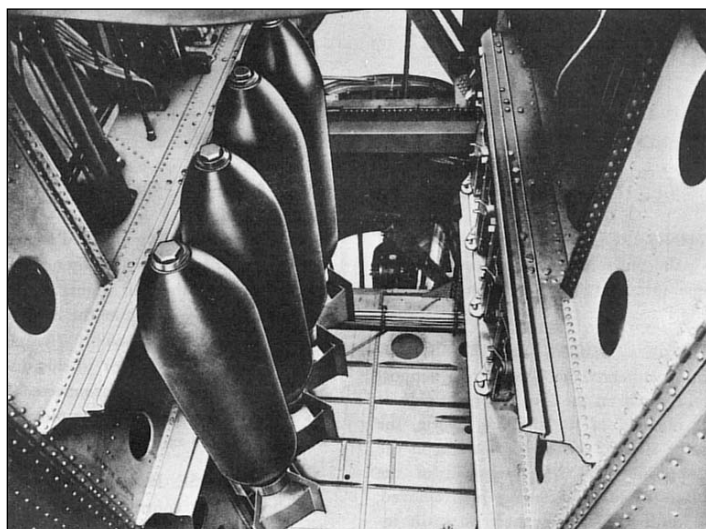
Mark XIII torpedo installation in bomb bay. (From Douglas A-20B Maintenance Manual)



USAAF camouflage paint scheme specifications. (From Douglas A-20B Maintenance Manual)



380-gallon belly tank from rear looking forward. (From Douglas A-20B Maintenance Manual)



100-pound bombs installed on demolition rack. (From Douglas A-20B Maintenance Manual)

About the Author



So here is what is left of your author. Taken three and half years ago during my 70th birthday – note the glass of Oregon Pinot Gris. I am holding my last wood “solid” model: a 1/24th scale Messerschmitt

Bf 109E-4, naturally in “Battle of Britain” livery (9/JG2). It was completed in about 1970, just before my mentor, George Lee, introduced me to polystyrene plastic. My next modeling effort was a “scratch built” Douglas A-20A in this medium.

Note the photo of George Lee on the wall behind me. Also in evidence is my “solid” Republic P-47D-20 completed in 1964. The light background for the Bf 109E is provided by my then current project, a pencil drawing entitled *The Miller's Tale*, depicting Chaucer's *Canterbury Tales* pilgrims astride their ponies en route to Canterbury from Southwark.

The exposed walls of my workroom are covered from floor to ceiling with framed photos of my favorite airplanes – a B-24D, P-38F, P-6E and the shadow of a B-25C on the Tunisian desert are in evidence. There are now 75 airplane pictures on these walls, plus a few stills from favorite movies and a couple of my wife.

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Removing 260-gallon forward bomb bay fuel tank. (From Douglas A-20B Maintenance Manual)