

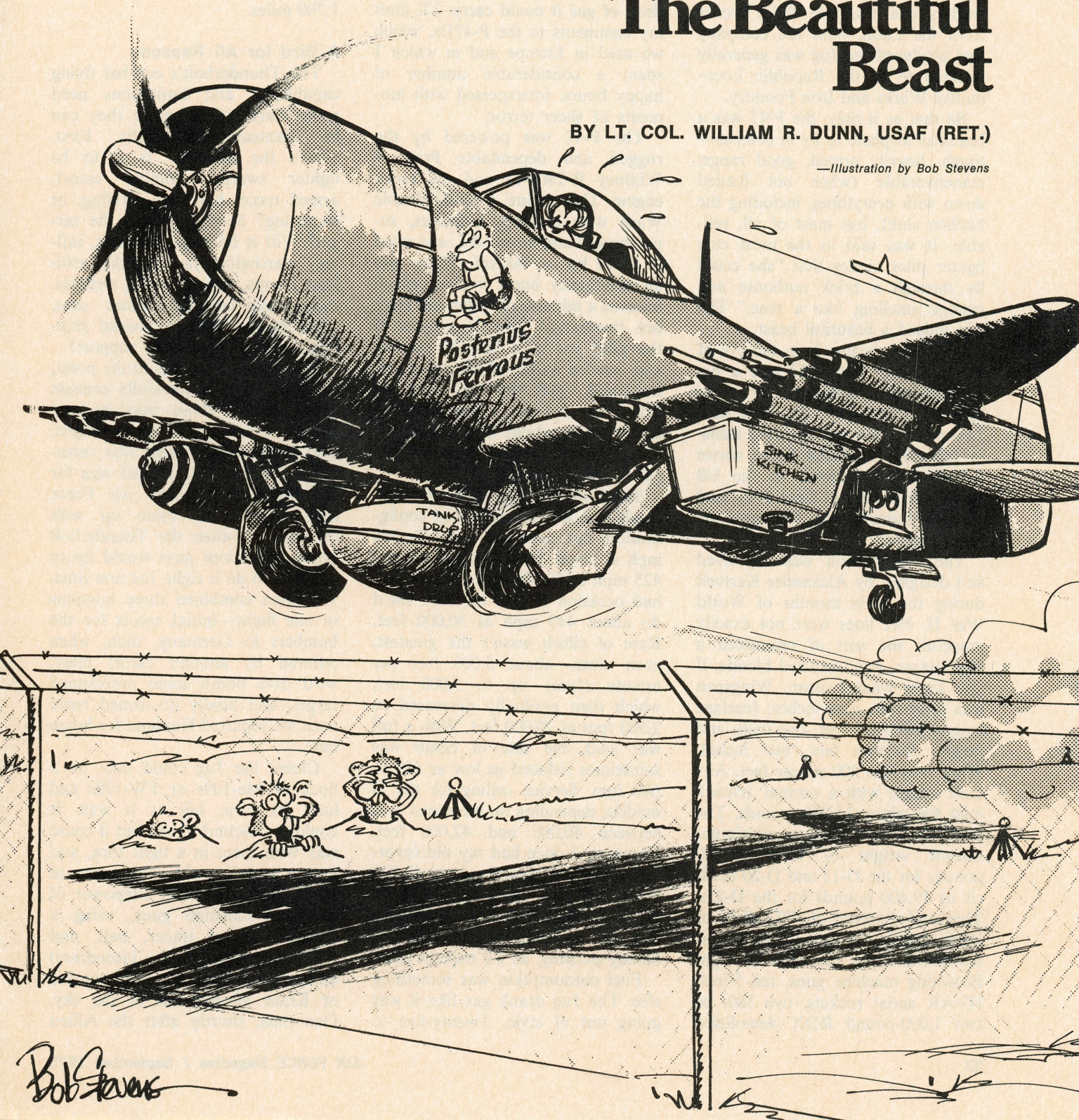
Republic's tough, versatile P-47 Thunderbolt of World War II fame was one fighter that put it all together. America's first ace of the Big One writes about the Jug—her wonders, her warts, and her winning ways—in this pilot report on the . . .

P-47

The Beautiful Beast

BY LT. COL. WILLIAM R. DUNN, USAF (RET.)

—Illustration by Bob Stevens



THE Republic P-47 Thunderbolt has been affectionately called many names by the fighter pilots who flew her—the Repulsive Scatterbolt, the Jug, Thunder Mug, Bucket of Bolts, T-Bolt, Big Ugly, and the Cast Iron Beast.

My own P-47D, when I was assigned to the 406th Fighter Group (the “Raiders”) of the Ninth Air Force back in the World War II years of 1943 and 1944, was called “Posterius Ferrous.” I assume my readers can translate those words from the Latin. And the company that produced the Jug was generally referred to as the Republic Locomotive Works and Iron Foundry.

Be that as it may, the P-47 was a beautiful airplane to fly in combat—tough, heavily armed, good range, maneuverable (when not loaded down with everything, including the kitchen sink), but most of all, reliable. It was said in the most elite fighter pilot circles that “she could fly through a brick outhouse and emerge smelling like a rose.” She was indeed a beautiful beast.

Of course, beauty is in the eye of the beholder. The P-47 was a big aircraft when compared to other fighters of that day. The first time I ever saw a Jug was after my transfer from the Royal Air Force, where I had flown Spitfires, to the US Army Air Forces in June 1943, and my first thought was, “Where’s the other engine?”

The Thunderbolt was conceived and designed by Alexander Kartveli during the early months of World War II. Her lines were not exactly graceful; she sort of resembled a big, buxom, good-natured blonde, if you know what I mean. Wingspan was forty feet, nine inches; fuselage length, thirty-six feet, one inch; and height, fourteen feet, two inches. Wing area was 300 square feet. Aircraft weight with a normal (clean) load was about 13,000 pounds. The P-47, however, had a maximum takeoff weight of from 15,000 pounds for the D-15 and D-20 models to 19,400 pounds for the D-25s. This load consisted of 370 gallons of internal fuel, 267 rounds of .50-caliber ammunition for each of eight Browning machine guns, ten 5-inch HVAR aerial rockets, two 500- or two 1,000-pound RDX demolition

bombs, and a seventy-five- or 150-gallon belly tank. (Some of our guns, by the way, carried 425 rounds.)

I suppose I’d better mention now that the P-47N model was even larger than the D. It had two feet more wingspan and a maximum weight of 20,700 pounds—which included 1,156 gallons of fuel! The “N” was used primarily for long-range bomber escort missions in the Pacific Theater, so it needed every drop of gas it could carry. I’ll limit my comments to the P-47Ds, which we used in Europe and in which I spent a considerable number of happy hours, interspersed with moments of sheer terror.

The P-47 was powered by the rugged and dependable Pratt & Whitney R-2800-21 and -59 series engine. This engine, a radial double Wasp with eighteen cylinders, supercharged and air-cooled, was rated at 2,300 hp on takeoff. There was an emergency boost system, which injected a mixture of water and alcohol (methanol) into the engine. If the pilot got in a bind in combat and needed some additional poop, he could “pull the teat” (as we called it) and get a maximum of 2,535 hp for about fifteen minutes. After that, the engine cylinders began to come unglued.

Speed of the Jug, of course, depended on the aircraft’s load configuration, but clean she could do 350 mph at about 5,000 feet and around 425 mph at 30,000 feet. Now, if you had occasion to pull the teat, she’d do about 440 mph at 30,000 feet. Rate of climb wasn’t the greatest, even clean—about 3,000 feet per minute (fpm) up to 5,000 feet, which then gradually decreased to 2,500 fpm at 20,000 feet. With a full war load, the rate of climb was sometimes reduced as low as 400 to 600 fpm. Service ceiling for the D models, depending on the series, was between 40,000 and 42,000 feet. However, I once had my old favorite, a P-47D-15 razorback, to 42,800 (true) before we both fell out of the sky and came barreling down in a long compressibility dive. That got bloody exciting, as I’ll explain later.

Fuel consumption was something else. The Jug drank gas like it was going out of style. Twenty-five to

thirty gallons went down the tube for warm-up and takeoff. Then she drank up between ninety and 110 gallons per hour (gph) at normal cruise speed (we used a rule of thumb—100 gph). In a good dogfight, her fuel consumption was about 275 gph. And, if you had to pull the teat, she gulped gas at the rate of 315 gph. Normal range of the P-47D was 480 to 500 miles when carrying a full war load. Maximum ferry range was about 1,700 miles.

A Bird for All Reasons

The Thunderbolt’s combat flying capabilities and limitations need some clarification before they can be discussed realistically. First, what’s the mission? Is it to be fighter sweeps, bomber escort, armed recce, bombing, strafing, or rocketing? Second, what’s the target? Will it be enemy aircraft, railway marshaling yards, tanks, artillery, troops, trains, trucks, airfields, radar and communications sites, canal barges, bridges, coastal shipping, or battlefield close support?

Well, to be brief and to the point, the P-47 could successfully execute every one of those missions and clobber every one of those targets. The Jug’s middle name was versatility. All that was needed was for the Eighth and Ninth Air Force staff weenies to come up with the mission—then the Thunderbolt group operations guys would figure out how to do it right, the first time. We often combined three missions in one flight—initial escort for the bombers to Germany, then, when relieved by another escort relay, we’d dive bomb some preplanned target, and finally do armed recce until we departed Hunland for home base.

Clean, the Jug could take on a flock of Me-109s or FW-190s and hold its own, big as it was. It couldn’t outclimb them, but it could stay with them in a tight turn, and it sure as hell could outdive any of them. And the heavy firepower of its eight machine guns, using a combination of tracer, ball, and API (armor-piercing incendiary) ammunition, blew a goodly number of Kraut aircraft out of the sky. One time, shortly after the Allied

invasion of France, our group got into a scrap with forty Me-109s. We shot down eleven of them without a single loss.

Lt. Col. Francis "Gabby" Gabreski, the famous "Yankski" ace of the P-47-equipped 56th Fighter Group, will certainly agree with the Jug's air-fighting capabilities. He scrubbed 28 Hun kites—mostly enemy fighters. Col. Hub Zemke, the group's commander, knocked down another 17.75 confirmed in air-to-air combat before he was nailed by ground fire. Capt. Bob Johnson shot down 27 German aircraft while flying the "Repulsive Scatterbolt." Maj. Glenn Eagleston, of the 354th Fighter Group, splashed 18.5 enemy birds with his P-47D-25. Col. Dave Schilling toted up 22.5 air victories. Col. (later four-star general) John C. Meyer, Commander of the 352d Fighter Group, had 24 aerial kills. I've listed just six P-47 fighter pilots, and among them they shot down a combined total of 137.75 enemy aircraft—that's the equivalent of almost eleven and a half German squadrons!

Escorting bombers was a mission that fell more to the Eighth Air Force P-47 guys than to us Ninth Air Force types. However, every now and then we'd get shanghaied by the Eighth for an assist. By an intricate scheduling system of fighter relays, the bomber boys could be assured of Thunderbolt and Spam Can (P-51) escort and protection all the way to targets deep in Germany and back home again.

There was one real hazard to us on these escort operations—even more dangerous, sometimes, than enemy flak and fighters—and that was friendly air gunners aboard our bombers. Someone forgot to teach them aircraft recognition, so those trigger-happy characters took a squirt at everything that flew. Of course, at a distance and in a head-on position with our radial engines, we might have been mistaken for FW-190s. We were always very careful never to approach the bombers with our aircraft nose pointed toward them. We used to fly parallel to them, a safe distance away, and tip up our wings so the bomber crews could see their shape and US insignia. Even with this friendly ges-

ture, a few .50-caliber tracers would come whizzing in our direction. Yes, we lost a few friendly fighters to our air gunner comrades-in-arms.

If we were lucky and were assigned to the more distant relays along the bomber route, we generally got a crack at enemy fighters. If we were unlucky and were as-

id-firing "Chicago pianos," 20-mm and 7.9-mm light flak. One round through their coolant system and they were dead ducks. But the good old lumbering cast-iron Jug could take it and survive. You'd be absolutely amazed at the P-47s that made it home after being shot to pieces—cylinders blown completely



A Ninth Air Force P-47 at its base in England, loaded for bear with a 1,000-pound bomb under each wing and 267 rounds of ammo for each of its .50-caliber guns.

signed to the near relays—across the Channel, overfly Holland, and terminate just past the borders of Germany—we'd get stuck with the dive bombing and armed recce bit.

Flak Bait

Not too many fighter pilots enjoyed dive-bombing. Seems like special targets were always selected for Thunderbolt pilots—well-defended targets like railway marshaling yards, airfields, and critical bridges. The concept of our employment was simple. The inline-engine fighters couldn't take the heavy flak, the big 88-mm cannons, 40-mm rap-

id engines and streaming oil, and great rents and holes blasted through wings, fuselage, and tail planes.

Armed recce suited the Jug pilot better—targets of opportunity. Shooting up trains was by far the most exciting. Dive down at about a thirty degree angle to the train's route of travel to give the anti-aircraft gunners on the train's flak cars a deflection shot, which they usually missed. Now squirt the locomotive with your .50 calibers. A few good hits on the boiler and up would pop a geyser of white steam and smoke. Now you had the train stopped and could beat it up at your leisure. If it proved to be an ammunition train, some caution had to be exercised in case it blew up under you on a firing pass. One of our 406th boys had to fly through the debris of such an



Beating up enemy airfields could be nonhabit forming—and was for a lot of Jug pilots who sat out the rest of the war in POW camps.



A German 40-mm shell ventilated this P-47, but the Beast made it home.

explosion, and, would you believe it, an 88-mm shell case smashed into the leading edge of his starboard wing and stuck there!

Shooting up the enemy's airfields caused the old adrenalin to flow, too. There was always a lot of heavy and light flak around them and, since you had to really low-fly, you were continually in the thick of it. Here again was the hazard of the target—an enemy aircraft or a fuel dump—blowing up in your face, a great red fireball, and you were so low and close that you had to fly through it. But the tough, reliable Jug would generally make it, no sweat.

I suppose, all told, I helped shoot up eight or ten enemy airfields in France and Belgium, and I got my fair share of flak and bullet holes out of it. (I was credited with the destruction of twelve enemy aircraft on the ground, during such attacks, and damaged several more.) We lost a lot of good boys on those missions in the months just before D-Day, but the Germans lost most of their air force. The trick to stay alive was not to duel with their anti-aircraft guns, to make no more than a couple of passes, and then get the hell out of there.

Nobody's Perfect

The Thunderbolt was easy to fly, sort of like a big AT-6. Takeoff

was fairly long, depending on the aircraft's load. Landing on that wide-track gear was also simple. We usually put the gear down at about 180 mph, dumped the flaps on final turn at 150 mph, over the fence at 110, and touched down about 85 or 90 mph. She didn't float at all; just ease back on the stick and throttle and down she came, like a ton of bricks.

Her bad habits, as far as I was concerned, were her slow rate of climb, spin characteristics, and compressibility dive. I've already mentioned the climb problem. In a stall, low- or high-speed, she'd fall out from under you with a snap that would shake your eyeteeth, down would go her big nose, and she could really wind up in a long spin. Spins weren't recommended for the Jug, according to the book. If you did an intentional spin, it should be started above 10,000 feet. If you hadn't got her out of it by 6,000 feet, you'd better start thinking of bailing out because she was probably going all the way in.

A compressibility dive was a shocking state of affairs, let me tell you. You'd enter compressibility at about 42,000 feet. The nose would gradually drop until it was just past the vertical, the plane slightly on her back. There wasn't a thing the pilot could do to control the 600-plus-mpg dive, except sit there and

watch the earth rushing up at him, scream a little, and pray a lot.

At about 18,000 feet, you began to recover some elevator control. Power on would begin to lift the aircraft's nose, and by the time you'd reached 8,000 feet—pulling all the Gs you could stand—you'd come barreling out of the compressibility dive, slightly sweaty and a little green around the gills. It was a tremendous experience to go through—once. Some new boys used to get in a panic and start rolling back trim in the first part of the dive. At about 15,000 feet, the trim would take hold and they'd exceed the G limits, zoom up, black out, and sometimes not recover.

I had one other gripe about the Jug. Well, it was really about the gunsight. Whoever invented that 70-mil gunsight ought to have had his backside kicked up to his shoulders. Imagine, if you will, an enemy aircraft diving across your sight doing 380 mph at ninety degrees deflection and at a range of 250 yards. Quick! How many radii? Seventy mils goes into 380 mph how many times? He's gone while you're trying to figure it out!

My solution to this problem was to visit my old RAF buddies and trade an Irvin flying jacket for a British 100-mil gunsight, which I promptly installed in my P-47D. Quick! Solve the same problem.

On August 27, 1941, Bill Dunn, now a retired USAF lieutenant colonel, became the first American ace of World War II while flying a Spitfire with the RAF's No. 71 Eagle Squadron. In 1943, he transferred to the USAAF as a captain and P-47 pilot, flying 234 more combat missions by V-E Day. The story of Colonel Dunn's colorful career appeared in our April 1973 issue. In April 1975, his article on the Spitfire appeared in this magazine.



Confederate Air Force P-47s—among the few that remain of the 15,660 built during World War II—all bear the colors of famous Jug units.

Three point eight radii and squirt him. It wasn't too long afterward that I became the "go-between" for our guys and the RAF equipment stores for more such trades. I eventually got 100-mil gunsights for every Jug in the 406th Group.

Fantastic Firepower

Getting back to the Thunderbolt's firepower, I had occasion on June 18, 1944, to engage an Me-110 that was shooting up one of our ships off the French coast, near Cherbourg. He saw me coming and turned to a head-on pass. I had ten 5-inch HVAR rockets on board, and as I wasn't particularly fond of head-on attacks, I salvoed the whole lot at him. They didn't hit him, but they sure scared the bejesus out of him, and he did a steep turn to starboard. I pulled my Jug hard to port and ended up about fifty yards behind him, where I let him have the full blast, all eight .50 calibers. I had never seen an aircraft, unless it exploded, completely disintegrate in the air the way that 110 did. It just turned into shattered bits and pieces. The ship's crew confirmed this victory for me.

Another time (August 25, 1944) three of us were scrambled from A-6 Airfield in France to hit some enemy shipping in the harbor at Brest. When we got there, we saw that the German Army was trying to evacuate their surrounded troops by sea. The flak was bloody terrific, and one Jug, from another group, had already been shot down into the drink.

The pilot evidently had bailed out without a Mae West and was paddling around in the middle of the harbor. Some other Jug pilot had managed to get out of his parachute harness in the cockpit and had taken off his Mae West. Then he flew very low and slow over the water, through all sorts of flak, and threw the life vest over the side to his buddy in the water.

This brave Jug pilot got shot up a bit and returned to his home base. The guy in the water got the Mae West and, so we were later told, was picked up by friendly troops. Now that episode was something to see. We all provided flak suppression for this bold and heroic effort.

After this, the three of us, Lts. Howard Park and Lewis Hall and I, picked out ships to hit with our HVAR rockets. Park and Hall both attacked one vessel and holed it twice at the waterline and once below the waterline. They made a second attack on another ship and fired their rockets, but were driven off by the heavy flak before they could observe their hits. I witnessed both attacks and confirmed two hits on the second ship's hull.

My own target was a loaded 4,000-ton troopship at anchor in the small bay just below the city of Brest. Twice I tried to make low-

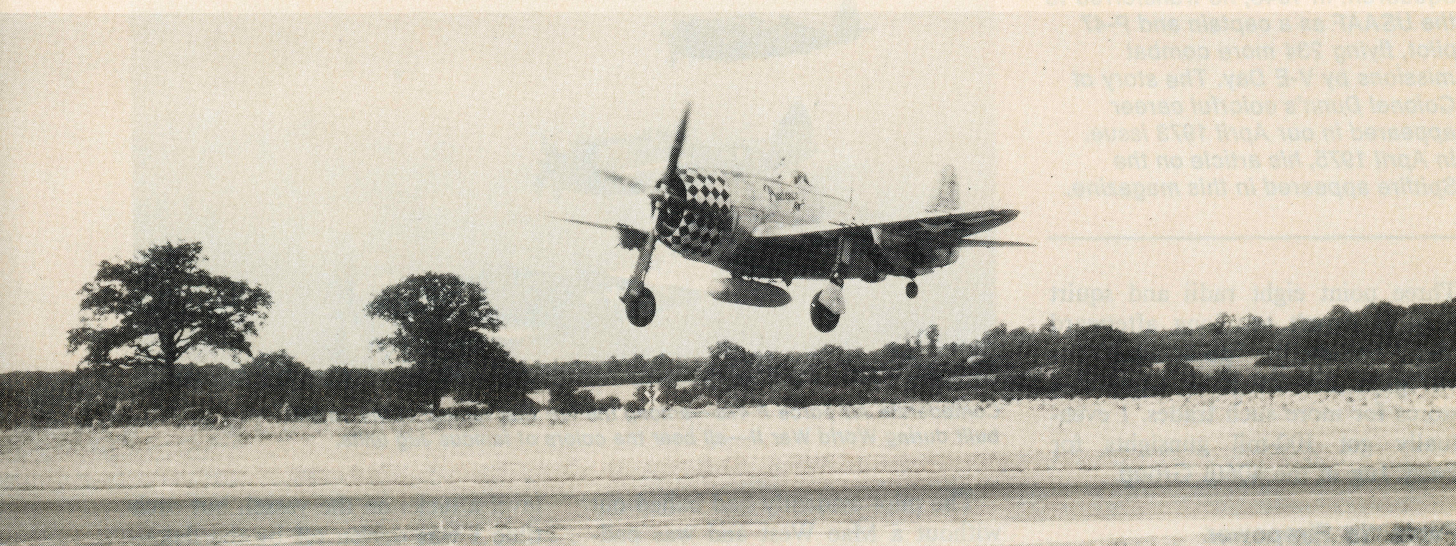
level attacks on the vessel, but each time I was driven off by the flak—little white-hot balls of fire zipping past my Jug's canopy and kicking up geysers of water all around me. Finally, I climbed up to 4,000 feet, shoved everything forward, and dove flat out on the target.

I must have been doing about 500 mph when I leveled out just above the water and salvoed my rockets. Four of them hit the ship dead center and exploded inside the hull, two hit just below the waterline, two went skidding across the ship's deck, and two didn't fire. I was so low that I collided with some of the ship's top rigging as I pulled up and over it. I hedgehopped over another vessel, which I squirted with my guns, and then pulled straight up. When I reached 5,000 feet, I was still doing 280 mph.

We three sank three enemy ships (confirmed) with our rockets—and each of us was later awarded the DFC for that action. We all got holed by the heavy and intense flak; my Jug had eighteen battle scars to prove it, but she got me home all in one piece.

The Record She Wrote

I suppose you've been wondering how my P-47 and I got the glamorous title "Posterius Ferrous."



A goodly number of aces will testify that the Jug was no slouch in air-to-air combat. This 353d Group P-47 is off for a day of hunting across the Channel.

Taking off from Ashford Airfield in Kent, England, one day I hit a 500-pound RDX bomb that had fallen off the wing of the guy who took off before me. It blew up under my poor old P-47D-20, cutting her in half just in front of the tail plane. I didn't get a scratch worth mentioning. A couple of days later, when I went out to look at my new D-25, there on the cowl was painted a cartoon-type man holding a steel helmet over his rear end. Hence, the name was provided by my friendly crew chief.

The World War II record of the Republic P-47 Thunderbolt was indeed impressive. In 546,000 sorties, P-47s destroyed 11,874 enemy aircraft, some 9,000 locomotives, and more than 160,000 military vehicles (railway cars, trucks, tanks, etc.). And these figures do not include the great number of other fixed targets hit and destroyed, nor the tremendous effort that went into providing battlefield close support for our ground troops. Fifty-eight USAAF fighter groups were equipped with Jugs during those war years.

Our 406th Fighter Group, commanded by Col. Anthony V. "Tony the Wop" Grossetta, achieved a distinction unique in the annals of air warfare. On September 7, 1944, we found and attacked a complete German armored column, fifteen miles long, that was trying to escape from Southeastern France through the Belfort Gap. After we hit this column with our full strength three times during the day, the German commanding general asked to surrender—but only to the Air Force unit that had entirely destroyed his army group. If I remember correctly, Tony did the honors at a bridge across the Loire River. The 406th received a Distinguished Unit Citation for this action. We got a second DUC in December 1944 at Bastogne for our close support to the besieged American garrison there.

All in all, 15,660 P-47s were built. During the war years, they were flown in combat by the US Army Air Forces, the British Royal Air Force, the Free French Air Force, and the Brazilian Air Force. After

the war, Jugs were provided to the air forces of nineteen countries and to our Air National Guard. When I was assigned to Iran as fighter adviser in 1948, I transferred sixty P-47D-20s and D-25s from the USAF to the Imperial Iranian Air Force. In 1954, while serving with the Joint Brazil-United States Military Commission at Rio de Janeiro, I met my old wartime Thunderbolt buddies again at Santa Cruz airfield, and assisted in the transfer of twenty-five more Jugs from the USAF to the FAB (Força Aeria Brasileira). Today, as far as I know, the last Jugs on "active service" belong to the Confederate Air Force, based at Harlingen, Tex.

Wise guys, years ago, used to try to needle us P-47 boys with such comments as, "Evasive action in the Jug is when the pilot gets up and runs around the cockpit." Well, there was no use in even attempting to counter their uneducated digs. The Thunderbolt's gallant record in war speaks for itself. She was an outstanding fighter—a legend in her own day and age. Yes, truthfully, to us who flew and fought and survived in her, she was a very beautiful beast. ■