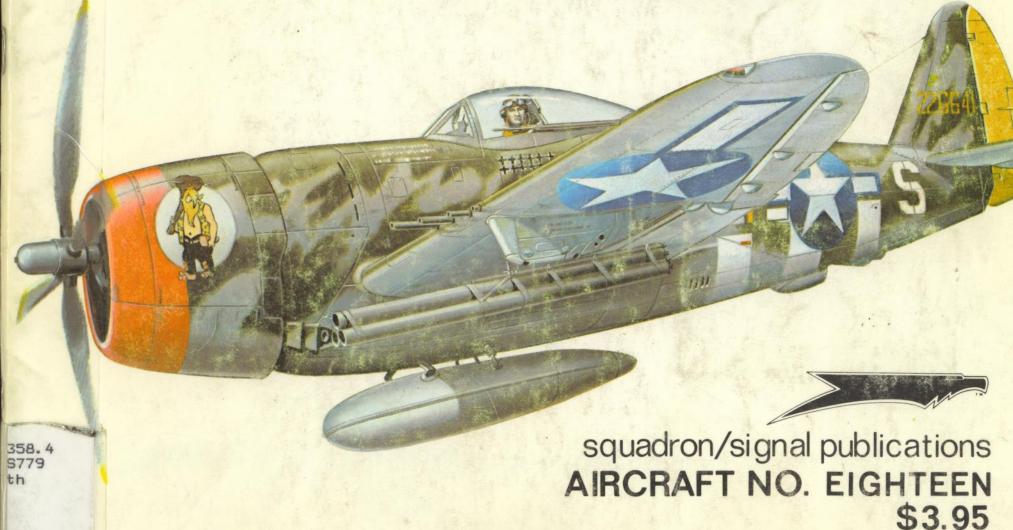
THUNDERBOLT

in Action



THUNDERBOLT in action by Gene B Stafford illustrated by Don Green

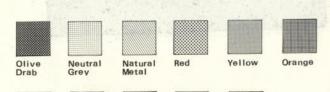


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INTRODUCTION

In a horse show, the arena is usually filled with graceful thoroughbreds selected for nimbleness and speed of foot. The bulky lines of the Clydesdale seem so out of place in such sleek company you could hardly expect the big horse to compete on an equal basis. For the workhorse to hold his own and even outshine many opponents would be beyond belief. As far fetched as this analogy may sound, this is exactly what happened in the skies above Europe and the Pacific for much of World War II. In the midst of Mustangs, Spitfires, Me-109's, FW-190's, Reisens and Heins, was one "brute" of an airplane with the appropriate name of "Thunderbolt". Though nearly twice the weight of other single engine fighters, the Thunderbolt stood toe to toe with the best airplanes the enemy had and slugged its way to an enviable combat record. On every front, from 1943 until the end of the war, the Republic P-47 carried its pilots into the heart of the fight and usually brought them home. The shear size and mass of the Jug, tied behind a rugged Pratt-Whitney radial engine, meant a lot to the men who flew it, for it could take battle damage that would have felled almost any other plane. The German and Japanese aircraft that it faced did not fare so well. The hitting power of eight .50 caliber guns knocked large numbers of them from the sky making the men who flew the "Jug" some of America's top aces. This is the story of the Jug and the men who flew it.



A P-47D (serial number 42-23278) refurbished by Republic in the early Sixties and now on display at the Air Force Museum. (Republic Aviation Division)

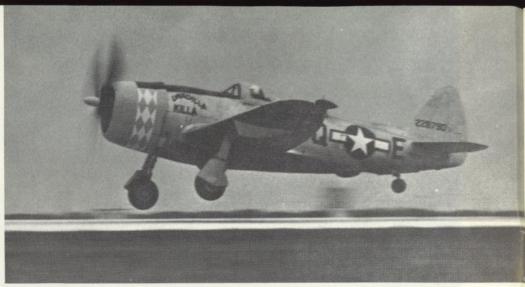


P-47N of the Confederate Air Force done in the markings of the 354th Fighter Squadron, 353rd Fighter Group (G. Bavousett)



A P-47N refurbished and flown by the Puerto Rico Air National Guard. The cowl and fin markings are in red and white. (Air Force Museum)





The Jug was produced in great numbers during the Second World War but only a handful remain. The Confederate Air Force, based in Harlingen, Texas is the location of the largest number of the big fighter. With six P-47's among the many aircraft now flying, this organization serves as a reminder of the aerial might of the United States in the last war. (G. Bavousett)



DEVELOPMENTAL HISTORY

The legend of the Thunderbolt had its roots in the dark days of the depression. In that year Alexander P. de Seversky, an American citizen for only four years, founded a new aircraft company bearing his name. Seversky graduated from the Russian Naval Academy in 1914 and soon found his way into the air arm of that service. During the First World War, he had flown bombers and pursuit aircraft and had risen to command pursuit aviation in the Baltic. On a mission in 1915 he had been wounded and had lost his right leg but this didn't keep him out of action. With an artificial leg he continued to fly until 1918 when he was selected as a member of the Russian Naval Mission to the United States. When Russia dropped out of the war, Seversky offered his services to his hosts and was appointed aeronautical engineer and test pilot for the U.S. Government. In 1921 he acted in an advisory capacity to General Billy Mitchell during his demonstration of the effectiveness of airpower against the battleship and, as a result, was appointed consulting engineer to the War Department. With almost twenty years first hand experience in military aviation, Seversky certainly had the background and technical knowledge to start an aircraft company.

The Seversky Aircraft Corporation faced long odds at its birth. While this may have been the start of the "Golden Age of Aviation", money for such ventures was in short supply and many older aircraft companies were folding from lack of profit. Seversky did not let this bother him, however, and he started work on a civilian amphibian designated the SEV-3. This plane had a wing planform semi-elliptical in shape - a form that would characterize all Seversky aircraft for the next decade and a half. The SEV-3 had a number of unique features including an arrangement whereby the wheels retracted into the wing structure rather than the floats and thus relieved the latter from having to carry high loads. The plane also could be changed to a land version by removing the floats. Indicative of the state of Seversky's financial affairs was the fact the plane was built in the EDO float factory rather than in a plant of its own.

Seversky was joined by another Russian emigrant, Alexander Kartveli, in early 1934. Kartveli had been an artillery officer in the Russian Army but his thoughts and ambitions soon carried him into aircraft design.

The pair of Russians theorized that a family of aircraft, built around a standard airframe, could meet all of the requirements of a small air force. By changing engines, outer wing panels, and internal equipment, a fighter, observation aircraft or trainer could be obtained at relatively low cost. The SEV-3 "Demonstrator", was taken to Wright Field and shown. The culmination of this was a contract for a two place trainer with the designation BT-8. Though the ship never achieved the fame of its North American brother, it did serve to get the fledgling company into production.

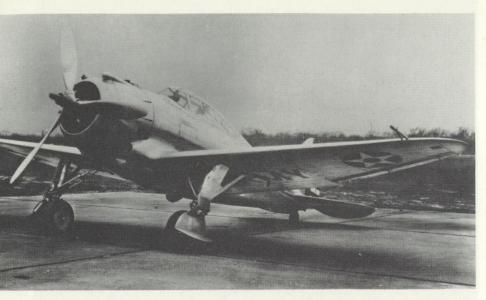
Very early in 1935, the Army Air Corps announced a competition for a new pursuit ship to be held in late May. Here was the chance the new company had been seeking and work was begun immediately. The plane that evolved was actually little more than an up rated version of the BT-8. Known as the SEV-2XP, the ship had a fixed undercarriage and was powered by the Wright



One of the P-35's ordered by Sweden but taken over by the Army Air Corps and designated the P-35A. (H. Comstock)

The P-35 was the first production aircraft for the fledgling Seversky Aircraft Company. Though a contemporary of the Bf 109 and Spitfire, the stubby little fighter was no match for its European counterparts. (Republic Aviation Division)





The 77th P-35 in the original contract was completed as the XP-41. A similar company-sponsored version, the AP-4, flew against the XP-40 in the fighter competition of 1939 and eventually became the P-43. The XP-41 proceeded no further. (Republic Aviation Division)

The first batch of Lancers was designated YP-43 since the AP-4 served as the X-model. A total of thirteen YP-43's were built before converting to full production. (Republic Aviation Division)



GR-1670 engine - an engine destined to go absolutely no where.

If events had transpired differently it is very unlikely the Seversky design would have proceeded further than this initial test. The Army Air Corps had already determined the two seat fighter to be an anachronism at the very best and totally unsuitable to the Air Corps needs. If this were not enough, the two aircraft against which it was to compete were single seat and both had retractable landing gear. There was just no way for the SEV-2XP to win.

As is often the case, however, fate played a very great role in deciding the outcome of the competition. First the Northrop entry, the Northrop 3-A, was lost in an accident and then the Seversky entry had a less costly accident. The Army Air Corps decided it would be foolish to hold a fly off with only one plane in the running, the Curtiss Hawk 75, and so postponed the tests until August 1935.

The Seversky design team very quickly converted the two seat fighter into a single seater with retracting landing gear. The retracting mechanism was the absolute in simplicity and merely folded rearward into a fairing. A larger engine was also installed but there were still teething problems when the ship was delivered to Wright Field in August. The Hawk 75 also experienced problems with the power plant so the Army again decided to postpone the competition, this time until April 1936.

The eight month delay in the competition proved a godsend to other firms and they too built aircraft for the tests. Chance Vaught entered a revised version of the Northrop 3-A (the V-141) and Consolidated submitted a single seat version of the PB-2A.

When the competition finally did take place, Seversky won. The production order called for 77 aircraft, designated the P-35, of which the first thirteen were to be service test aircraft. Curtiss, however, had enough political influence to maintain at least some effort on the new generation of fighters (the Army ordered three Hawk 75's). In some respects Curtiss came out better in the long run for the Army placed an order for 210 P-36's the following year.

Before the P-35 could go into production certain changes were required including some aerodynamic refinement and the addition of armament. The first YP-35 came off the line in the spring of 1937 and production continued until August 1938. This plane, a true contemporary of the Spitfire, Hurricane, and Me-109, was several years behind these European designs. Underarmed, with one .50 and one .30 caliber machine gun mounted in the nose, and with a top speed of only 281 mph at 10,000 feet, the P-35 was definitely not a world class fighter. Again, however, the ship did move the Seversky/Kartveli dream one step closer and helped to keep the company afloat.

In the late-Thirties, Sweden began a search for a new fighter type and somehow selected the P-35. Subsequently, an order was placed for 120 of the ships but before any could be delivered there were improvements to be made. The Swedish government insisted the 1,050 horsepower Pratt and Witney R-1830-45 be installed and two additional .50 caliber machine guns be mounted in the wings. The engine change resulted in an improvement in top speed to some 310 mph and the United States Army saw Seversky had produced a better ship than the one it had purchased. As a result, the Army requisitioned the last 60 ships and added them to their inventory as the

P-35A. These aircraft were shipped to the Pacific to bolster the weak fighter forces in that area. These P-35A's flew over the Philippines until knocked from the sky by the Japanese during the first days after Pearl Harbor.

The 77th aircraft completed under the original contract was projected as the XP-41. The prototype featured an inward retracting undercarriage and the Twin Wasp R-1830-19 engine. The new plane had a top speed of 323 mph at 15,000 feet and a weight of 6,000 pounds. A company sponsored version, the AP-4, was quite similar but was powered by the -31 version of the Twin Wasp. This aircraft was used in the fighter competition of 1939 against the XP-40, Hawk 75R, and the XP-37.

The competition gave weight to performance below 15,000 feet and as a result, the XP-40 won. The Army, however, saw something in the AP-4 and placed an order with Republic for the P-43 Lancer. (Shortly before the competition, Seversky found itself in serious financial trouble and reorganized under the name Republic. Major de Seversky departed at this time.) The tests at Wright Field had eliminated the need for an XP-43 so the first ones off the line received the service test designation (YP-43). A total of thirteen of these aircraft were built with the first ships delivered in September 1940. The YP-43 was powered by the R-1830-35 engine and the ship could do some 350 mph.

Some six months after the order for the YP-43 was placed, Republic received an order for the improved version - the P-44. Eighty of the latter were ordered but as design and fabrication proceeded, it was evident to the military that the new ship would not catch American fighter design up with the rest of the world. The design and partially completed P-44 were scrapped and an order for 54 P-43's was placed. The 80 ship order for the P-44 was converted to one for P-43A's and was to keep Republic in production until a new fighter could find its way onto the line. In addition, 125 Lancers were procured for China and these flew in action against the Japanese.

The new design from Republic was to eventually become the P-47 Thunderbolt, but there were still a few twists ahead before this could come to pass. In response to an Air Corps Circular Proposal (39-770), Republic submitted the design for the AP-10 in August 1939. Where all of the previous designs of the company had used radial engines, the new plane was designed around the Allison V-1710 liquid-cooled engine. After some wrangling over the final specifications, the Army placed an order for the XP-47 and XP-47A (the latter being a stripped version). In its final form the XP-47 was to have a top speed of 400 mph and carry two .50 caliber machine guns in the nose and two .30 caliber in each wing. The airframe was to be the smallest that could be designed around the huge Allison engine (6,400 pound gross weight) and total cost for the two planes was to be \$481,600 including tooling. The contract was signed in January 1940.

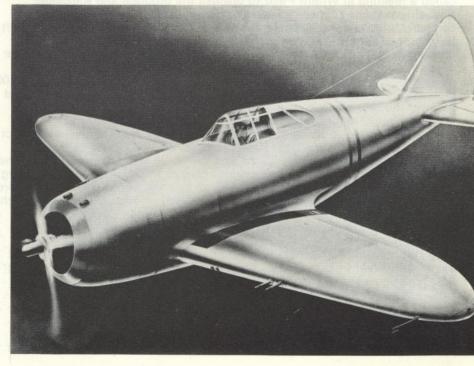
Events in the air over Europe were closely watched by military planners in the U.S. The Emmons Board had been formed to consider the experimental pursuit program in this country and viewed overseas events with care. In a memorandum dated 19 June 1940, the Board stated that too great an emphasis was being placed on the Allison engine and development around an air-cooled engine should be expedited.

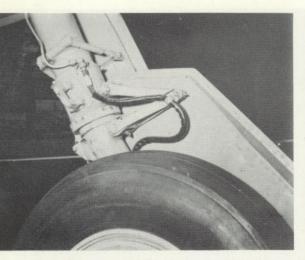
By May, Republic was having trouble meeting the XP-47 program

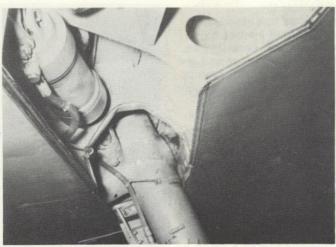


The P-43A-1, shown here, followed the A-model on the production line. Many of these ships were sent to China under the Lend-Lease Program. (W. Smelser)

Six months after the order for the YP-43 was placed, the improved XP-44 was ordered. Before the first could be completed, however, the need for even greater performance was seen and the XP-44 was dropped. The 80 aircraft order was converted to P-43's to keep the production lines open until the projected P-47 could be started down the lines. (Republic Aviation Division)









Wheel well and oleo detail on the P-47. (Air Force Museum)

objectives and it was obvious something would have to be done. The Army called a meeting at Wright Field to discuss the program and Alexander Kartveli was among those representing Republic. The Army asked the company to consider revamping the earlier designs of radial engined aircraft to incorporate the R-2800-11 engine. Kartveli returned to Republic and drawing heavily on the P-43 and P-44 design, responded with a proposal for an eight gun, 11,500 pound, single seat fighter powered by a turbosupercharged R-2800. This plane, the XP-47B, would have a top speed of 400 mph at 25,000 feet. On 12 June, the contract for the XP-47/47A was revised to cover the new plane.

A number of engineering problems confronted the Kartveli design team but the most serious concerned the design of an efficient supercharger duct system - one offering the least interrupted airflow. To solve this the engineers designed the ducting first and then built a fuselage around it. The huge turbosupercharger was stowed internally in the aft fuselage with a large intake located under the engine with the oil coolers. The exhaust gases were piped back separately to the turbine and expelled through a waste gate in the bottom of the fuselage. Ducted air was fed to the centrifugal impellor and returned to the engine under pressure via an intercooler.

The power of the R-2800 was too much for a conventional three bladed prop so one with four was adopted. Even with this, the propeller measured some twelve feet from tip to tip. To get around this problem, a telescoping undercarriage was designed - one nine inches shorter when retracted than when extended. Other problem areas included provision for sufficient structural strength to take the loads imposed by eight machine guns firing simultaneously and internal room for the fuel necessary to make the Thunderbolt a strategic fighter.

These and the myriad of other problems were solved and on 6 May 1941

the XP-47B took to the air for the first time. With Republic test pilot Lowry Brabham at the controls, the massive fighter (weight had risen to over 12,000 pounds) roared down the runway at the Farmingdale, Long Island plant. This flight was not without incident and for a while Brabham gave some thought to leaving the ship. Due to an oversight, the exhaust system did not function properly and smoke was drawn into the cockpit. Brabham was an experienced pilot and felt the ship was good enough to get it down in one piece. He landed at Mitchell Field where the plane remained in the hanger until the necessary changes could be made. The initial aircraft was lost over Long Island Sound in 1942 but before this, it had demonstrated its performance by posting a speed of 412 mph at 25,800 feet. At last America had a first line high altitude fighter to match those of Europe.

Almost a year after the XP-47B took to the air, the first production version rolled off the assembly lines at Farmingdale (March 1942). The production aircraft differed but slightly from the prototype with the major difference being the use of a production variant of the R-2800 engine. A sliding hood replaced the earlier version and there were some internal changes. Though total gross weight had now risen to some 13,356 pounds, top speed had also increased to 429 mph. In all a total of 171 P-47B's were built but the last of these was modified with a pressurized cockpit and designated XP-47E. By September 1942 a second plant, in Evansville, Indiana, was also starting to produce the Thunderbolt. This was an amazing feat considering that construction on the plant had begun only six months earlier. The aircraft produced at Evansville were the same as those at Farmingdale but carried an "RA" rather than an "Re" in the designation.

The first fighter unit to receive the P-47 was the 56th Fighter Group. The unit was based in the New York area and the proximity to Republic made it the ideal choice to put the Jug through an operational evaluation. John

McClure and Cecil Bell of the 62nd Squadron were the first pilots to make the trek to Republic and return with the new fighter. Bell landed with no difficulty but McClure found when the time came to drop his flaps, only one would extend. McClure pulled the plane back up to 5,000 feet and thought about his predicament. Here he was with a brand new aircraft and one he had never flown before. Should he go over the side as the people on the ground advised or should he try and bring the ship down in one piece? He wasn't a test pilot but he still felt it was worth a try, so after a few practice landings at 5,000 feet, he came in for the real thing. The P-47 landed hot but there were no other problems. This incident was the start of a love affair - one that would last until the end of the war - between the 56th and the "big beast".

The next production variant, the P-47C, was similar to the B-model. Overall length was increased by some 101/4 inches with the bulk of this appearing as an eight inch extension of the fuselage at the firewall. Additionally the rudder and elevator balance system was completely redesigned and the forward-slanting radio mast replaced by an upright one. One of the most important changes was the addition of shackles to carry a 166.5 gallon ventral tank. This change gave rise to an increase in combat range but weight creeped up again to 14,925 pounds. The early C-models used the same engine as the B but from the P-47C-5-RE on the R-2800-59 engine was used. The new engine had provision for water injection and provided a War Emergency Rating of 2,300 horsepower at 27,000 feet. The P-47C was the first Jug to see combat and there were a total of 565 built.

The P-47D was the next production version and over three fourths of all Thunderbolts were of this model. The early D-models differed only slightly from the preceding version but water injection was made standard and duration when it was available was increased. More armor plate was added for the pilot and there were some changes to the supercharger exhaust system. The demand for the P-47 was so great even two Republic plants couldn't keep up with it. Consequently Curtiss-Wright was called upon to produce the aircraft beginning in December 1942. All but twenty of these planes were completed as P-47D's (The first 20 were C-RE models) but they carried the designation P-47G-1-CU through -15-CU. By March 1944, when production ceased, a total of 354 G-models had been completed.

Early D's had provisions for belly shackles but subsequent to the P-47D-11-RE, wing pylons were also added to allow the Thunderbolt a bomb load of two 1,000 pounders, three 500 pounders or a combination of bombs and fuel tanks. The ammunition load was some 425 rounds per gun except when a full ordnance load was carried and then the RPG was reduced to 267.

When the Jug went to war, the prevailing attitude was that the plane had to stay up high if it was to survive. Pilots of the Eighth Air Force, however, didn't think this was necessarily the case and started returning from missions on the deck. To increase low altitude performance, a paddle-bladed prop was added in January 1944. From the P-47D-20-RE on, this prop and water/methonal injection became standard. The new prop and injection had the benefit of adding some 400 feet per second to the climb rate. The "Universal" wing and fuselage mountings also became standard on this model. With this it was possible for the Jug to carry up to 2,500 pounds of bombs or two 150 and one 75 gallon gasoline tanks.

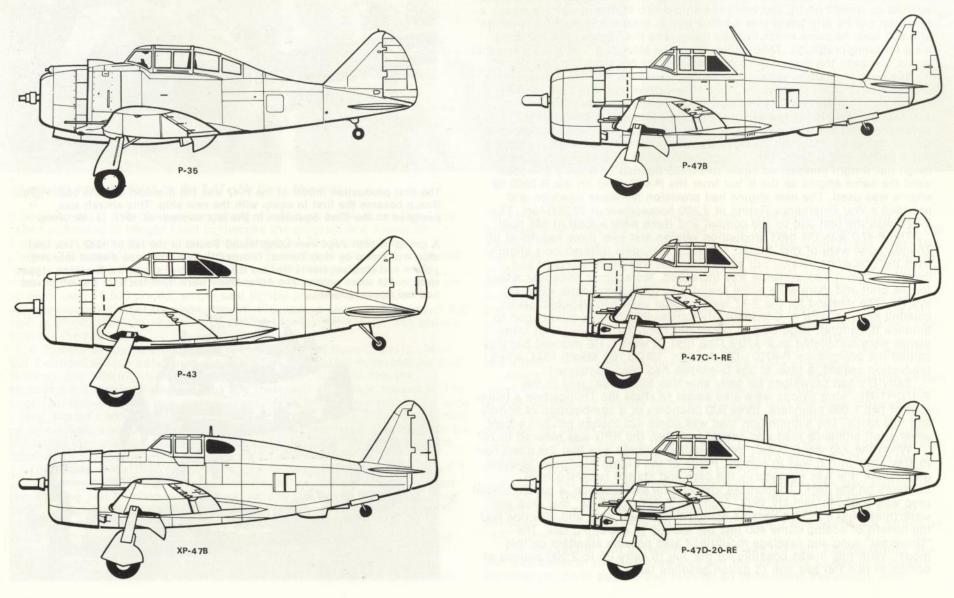


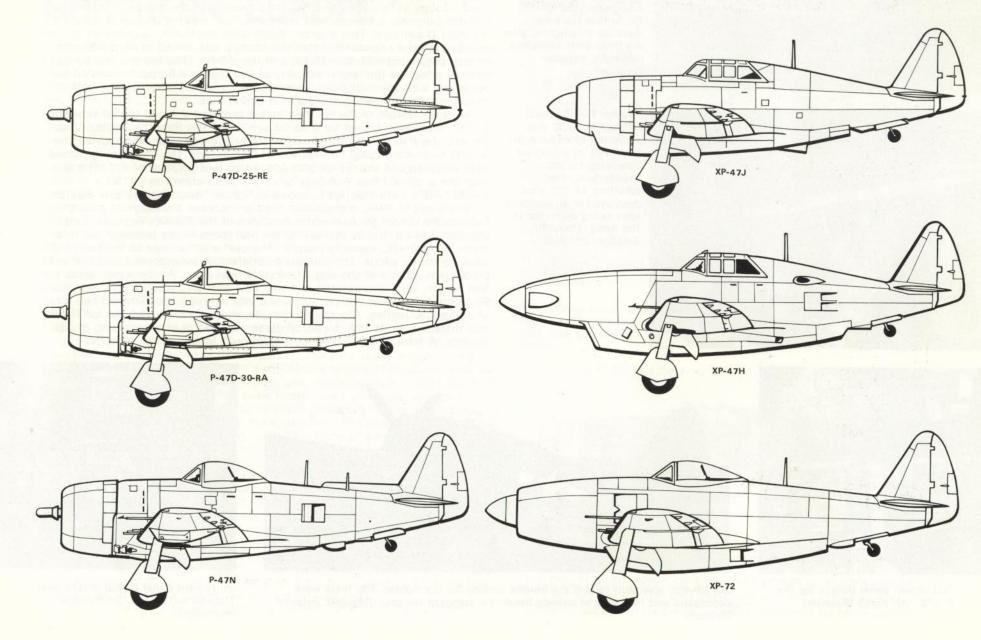
The first production model of the P-47 was the B-model and the 56th Fighter Group became the first to equip with the new ship. This aircraft was assigned to the 62nd Squadron in the late summer of 1942. (J. McClure)

A group of 56th Jugs over Long Island Sound in the fall of 1942. The lead ship was flown by Hub Zemke, Group CO. The cowl was divided into red, yellow and blue segments (for the three squadrons) and the fuselage stripes were in the same colors. The other ships were from the 61st Squadron and had red noses. (USAF)



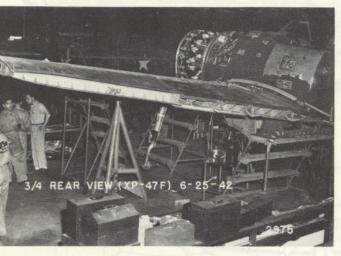
Developmental History







The 171st P-47B was completed with a pressurized cabin and designated the XP-47E. No further work was done on this fighter after the tests were complete. (Republic Aviation Division)



Another P-47B (serial number 41-5938) was converted to explore the feasibility of a laminar flow wing for the Thunderbolt. The resulting XP-47F was destroyed in an accident after being delivered to the Army. (Republic Aviation Division)

All of the P-47's through the -22-RE and -23-RA, as well as all of the Curtiss built aircraft, had the sliding framed canopy but this created a 20 degree blind spot to the rear. The British were experimenting with the blown glass canopy at this time and Republic decided to try one on a Thunderbolt. For this purpose, a canopy was borrowed from Hawker and mounted on a standard D airframe. This aircraft, designated the P-47K, was tested and the results proved so successful that the canopy was added to all production aircraft beginning with the -25-RE and the -26-RA. The bubble canopy had an adverse affect on the lateral stability of the Jug so a dorsal fin was added beginning with the next batch ordered. These planes also had the belly shackles strengthened to carry a 91.6 gallon tank.

With the advent of the German rocket powered V-1 and the jet powered Me262, there was a need for a sprint version of the Republic fighter. This aircraft, the P-47M, was fitted with a larger supercharger that allowed the R-2800 to develop 2,800 horsepower at 32,500 feet. The under wing pylons were removed and overall weight reduced so that a speed of 470 mph was possible at 30,000 feet. Virtually all of the production run of 130 P-47M-1-RE's were shipped to the 56th Fighter Group for use over Europe.

In the fall of 1944, there was a need to increase the range of escort fighters for the longer over water missions of the Pacific. Republic first attempted to do this by increasing the fuel tanks in the fuselage but this project, the P-47L, came to naught. The next attempt was to increase capacity in the wings. This proved a satisfactory arrangement and the last production version of the Jug, the P-47N, was born. A new wing, some two feet longer, was incorporated and this new section contained two additional 90 gallon fuel tanks. With external and internal fuel, the N-model had a range of some 2,300 miles. Along with the new wing, an improved version R-2800 was installed. In its final form the plane weighed in at a whopping 21,150 pounds. A total of 1,817 N-models were built including the XP-47N.



Instrument panel details for the P-47B. (Air Force Museum)



The XP-47K was built to test the bubble canopy for the fighter. The tests were successful and this type of canopy became a standard feature. (Republic Aviation Division)



Instrument panel layout on the later Thunderbolts. (The Smithsonian Institution)

COMBAT IN NORTHERN EUROPE

By late summer, 1942, the Eighth Air Force had started to take shape in England but the fighter groups originally assigned to it were destined to see their action in North Africa and not over Europe. The Eighth was not yet the strategic force it was to become but merely a training ground for the men and units soon to fly off to participate in Operation Torch. With the departure of these units in the last two months of 1942, American fighter operations from the United Kingdom virtually ceased for a period of several months. New outfits were required before the fledgling air force could again face the Germans.

The first permanent fighter group, the 4th, to join the Eighth Air Force came down a rather unique path. Long before this country's entry into the war, young Americans had found their way to England for a piece of the action. Eventually there were enough of them for the RAF to form three "Eagle" Squadrons and for almost two years these units flew combat alongside the other squadrons of the RAF. Equipped with Spitfires, the Eagle Squadrons transferred into the Army Air Force in September 1942 and became part of the Eighth. The 4th continued on operations in the sleek British planes until mid-January 1943 when it stood down to equip with a brand new fighter - the P-47.

The second fighter group to join the Eighth on a permanent basis was the 78th. This outfit had trained on the P-38 in the States and when it came to England, the big twin-engined fighter came with it. The air war in the Mediterranean had developed into a real slugfest and the three Lightningequipped outfits there had suffered heavily. The only ready supply of planes and pilots was the 78th so its P-38's and all but fifteen of its pilots were sent to Africa in mid-January 1943. New men and new aircraft, this time the P-47, began to arrive at the 78th in the same month the Lightnings were lost.

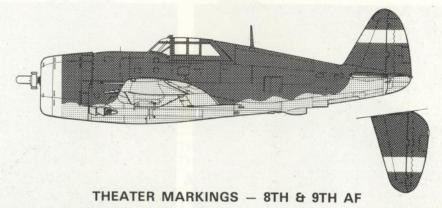
Neither of the two units were particularly pleased with the new fighter. Of the two, however, the 4th was the more vehement in expressing its dislikes. They were being asked to fly a big, ungainly, brute of an airplane - one they just knew couldn't compare with their earlier Spitfires.

This low opinion of the Thunderbolt was not held by the third fighter outfit to arrive in the United Kingdom for it was the 56th - the original P-47 unit. In January, when the group arrived, there were no fighters available. It had been almost two months since the pilots had flown and the men were getting itchy to get in the air. Finally on a day in late January, the men were sitting around the ready rooms when the familiar sound of a P-47 was heard overhead. The men fell over each other as they rushed outside to see the first of several Jugs headed in for a landing. Colonel Zemke, the commander of the 56th, called a hasty meeting of all the pilots and stated: "The first man to take up one of those planes without permission is going to be fined five pounds." With that the colonel turned and left the room.

The pilots were dejected for they had looked forward to flying again.



Pappy Craig in LM*R leads his flight above the patchwork countryside of England. The planes carry the standard markings used through late summer 1943. The surround to the national insignia on the fuselage was yellow. (D.F. Smith)



- A TWO-LETTER SQUADRON CODE CARRIED FORWARD OF NATIONAL INSIGNIA (BOTH SIDES) IN WHITE OR BLACK (24 INCH).
 INDIVIDUAL AIRCRAFT IDENTIFICATION LETTER CARRIED AFT OF NATIONAL INSIGNIA (BOTH SIDES) IN WHITE OR BLACK (24 INCH).
 SOME VARIATION IN FIN STRIPE LOCATION, ESPECIALLY ON EARLY AIRCRAFT.









Suddenly one of them came up with a brilliant idea. "Five pounds! That only comes to about two shillings each!" Quickly a hat was passed and soon there was enough to cover the fine. One of the men then went to the Colonel's office, plopped the money on his desk, and headed for the flight line. The rest of the day was spent with the pilots taking turns for a few minutes in the air.

During February, the three P-47 units worked on polishing the skills needed in combat. The original plan called for all three to be operational in March but because of problems with the radio and with the engines, some delay was necessary. Finally by the first week in April, all three outfits had enough aircraft and trained pilots to begin operations. The big day was April 8th and, with the 4th in the lead, 24 Thunderbolts set out on a fighter sweep in the area of Pas de Calais. Though the mission was uneventful it was a

beginning.

First blood for the Thunderbolt in the ETO was drawn by the pilots of the 4th. Twelve ships of the group left Debden for a fighter sweep on the afternoon of 15 April with Major Donald Blakeslee in command. Blakeslee, an old hand in aerial combat, would eventually rise to command the former Eagle Squadrons but on this date he had to be content with a smaller force. Blakeslee spotted three FW-190's some 10,000 feet below the formation and led his flight down on the attack. He opened fire on one of the enemy aircraft but his quarry broke into a dive with the American major right on his tail. Eventually he closed to the point where he could fire and this time there was no escape for the German pilot. The Focke-Wulf crashed on the outskirts of Ostend. While this action was going on, the other Thunderbolts tangled with more FW-190's, resulting in the destruction of two more enemy planes (one of these by Lt. Col. Chesley Peterson, another future commander of the 4th), but it cost the 4th one of its own. In addition, two other Jugs failed to return to the base due to engine trouble.

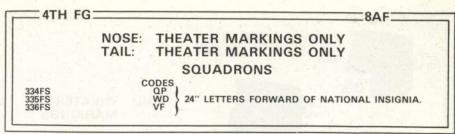
Until the 4th of May, the Thunderbolts had been used on fighter sweeps but on this date the 4th and 56th accompanied B-17's attacking Antwerp thus flying the first escort mission with the P-47. The mission was a success for all B-17's returned to England. Only one of the escorting fighters was lost and this was due to engine trouble. Whether the Germans just decided to stay home or whether the escort kept them away is hard to say but this mission paved the way for the big escort jobs that lay in the future.

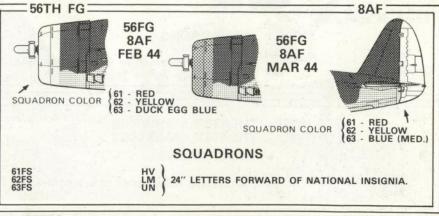
(Above Left) The flight line of the 82nd Fighter Squadron, 78th Fighter Group is seen behind a visiting Thunderbolt of the 359th Group. (USAF)

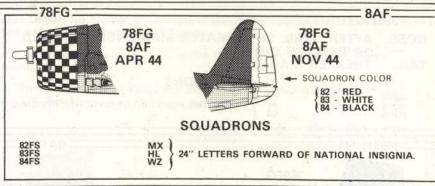
(Far Left) "Doreen II" of the 4th Fighter Group was flown by Colonel Edward W. Anderson, first commander of the group after it came into the USAF. (G. Fry)

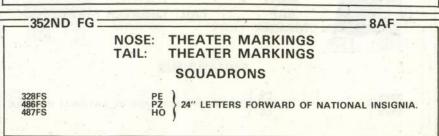
(Middle Left) This P-47D-11-RE flew with the 376th Fighter Squadron of the 361st Fighter Group. (W. Smelser)

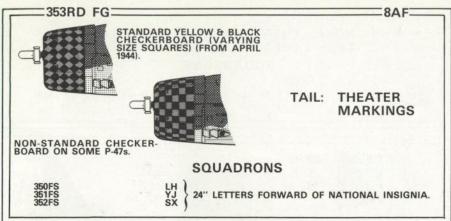
(Left) William Hovde's first aircraft with the 355th Fighter Group. Hovde was a 10.5 victory ace. (W. Hovde)

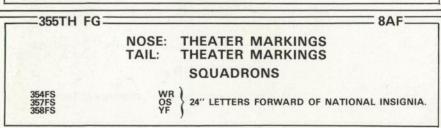


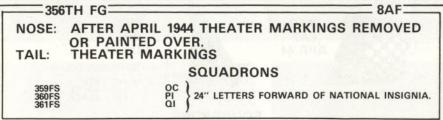


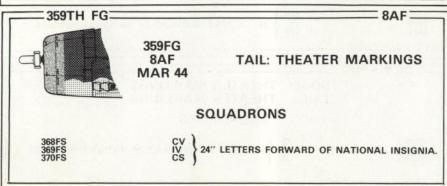










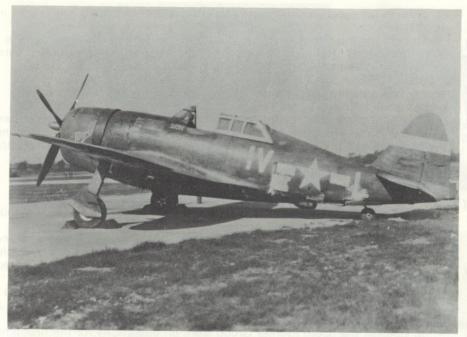


The missions in April and early May were on a limited scale for all three groups but by the middle of the month, sufficient planes were available for operations with full sixteen plane squadrons. Colonel Armand Peterson, commander of the 78th, led three such squadrons on an escort mission to Antwerp on the 14th. Though the group had been flying combat for over a month, it had not yet registered a victory. In the target area the outfit encountered a flock of some 20 FW-190's and Me-109's and dogfights broke out all over the sky. In one of these Major James Stone, a future commander of the 78th, downed the first enemy plane for the group when he successfully intercepted an FW-190 trying to get through to the bombers. Captains Jack Oberhansly and Charles London added probables and five other pilots managed to get in enough hits to enter claims of "damaged". The day was not without cost, however, for three of the 78th pilots went down. Two were captured but Captain Elmer McTaggart evaded capture and made his way to Spain.

The 56th still had a month after this to wait for its first victory. On 12 June, 48 Jugs under the command of Major Loren McCollum were on a Rodeo (fighter sweep) in the area of Rouen when a dozen FW-190's were spotted. Captain Walt Cook, leading a flight of the 62nd squadron, took his four ships on the attack. Diving from 20,000 feet, the young Ohian came out of the sun and lined up on one of the German planes from dead astern. He closed to less than 300 yards before he pressed the button. Pieces flew off the right side of the fuselage and from the right wing. Cook was down to a range of 200 yards when a big ball of fire appeared on the left wing as the ammunition seemed to explode. With this, the Luftwaffe fighter rolled to the left, went over on its back, and fell into a violent inverted spin with smoke pouring from the fuselage and wing.

The pilots of the 56th had come to England with a strong attachment for the Thunderbolt but those of the other units, having begun in other aircraft, felt no great love for their new mount. The 78th eventually grew accustomed to it and were pleased to be flying it but the 4th never did completely accept the aircraft. The day after Don Blakeslee chased the FW-190 in a dive and caught up with it someone remarked to him that the P-47 sure could dive, Blakeslee shot back with the comment "Hell, it should be able to dive, it sure can't climb."

One thing that helped convince the pilots of the 78th that the Jug was a good aircraft was its ability to take punishment and still get the pilot home. August V. DeGenaro returned from the mission of 14 July with his plane severely damaged. While on an escort mission to Amiens he had downed an FW-190 and damaged two others but in the process his own plane was hit a number of times. All of his instruments were shot out, his right aileron was completely shot away, his right wing was heavily damaged and his tail surfaces shredded. In addition, the Connecticut native had been wounded in both hands, his right knee and both ankles. Because of his injuries he had to fly his plane with his forearms. DeGenaro had to duck into low clouds to avoid three Focke-Wulfs that had been on his tail since the battle but the three soon turned back and DeGenaro turned his thoughts to the landing he must make in England. Shortly after he crossed the cliffs of Dover, he happened to glance down and notice his seat belt wasn't fastened. He had



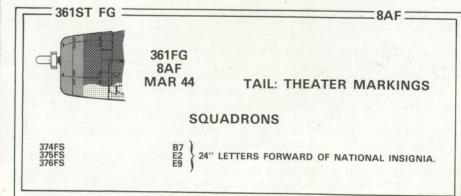




(Above) This 353rd Fighter Group ship displays the special black and white stripes added for the Invasion of Europe.

(Above Left) "Mary" was a D-5-RE of the 359th Fighter Group. (Air Force Museum)

(Left) "Zombie", P-47D-20-RE of the 356th Fighter Group was flown by Lt. Bailey. (W. Smelser)



unhooked it in combat and was unable to fasten it again because of his wounds.

DeGenaro later reported: "I headed out to sea again to bail out because I was afraid that if I bailed out over land the plane would crash into one of the towns along the coast. I looked down and spotted a fishing boat just off shore and decided to bail out near it. The canopy of my plane had jammed and wouldn't open, but since some of the glass had been shot away, I was able to punch and force my way through the canopy, bail out and open my chute. The fishing boat picked me up at once which was fortunate because with my hands injured I was unable to undo my parachute harness and I was getting weak from loss of blood."

When the three P-47 outfits began combat operations, only the 4th had any experience in aerial warfare. The learning process was long and hard and all three units lost aircraft and pilots while new tactics were evolved - ones designed to take advantage of the characteristics of the P-47. Enemy aircraft were shot down, a total of 33 through 27 July, but these victories came at a rather low rate with usually no more than three on any one mission. On the 28th of July, however, nine German fighters fell before the guns of the 4th Fighter Group. Just two days later all three groups were involved in the further destruction of 22 enemy planes. In a three day period, the Eighth Air Force fighters had almost doubled their total number of victories.

The big scorer on the mission of 30 July was the 78th Fighter Group. In addition to destroying seven Me-109's and nine FW-190's (the first time one group had scored in double figures), the group had a number of firsts for the day. Captain Charles London downed two to become the first American ace in the ETO (counting only victories with the American Air Force). Major Eugene P. Roberts became the first to score a triple victory and Lt. Quince L. Brown was the first to shoot up a ground target in the ETO. Though it had been a big day, the 78th lost three pilots including its second commanding officer in less than a month, Lt. Col. Melvin McNickle.

The fighter units of the Eighth Air Force flew both fighter sweeps and escort missions. As the number of aircraft increased, however, the latter took on an ever increasing role. In May, June and July 1943 the amount of protection given to the bombers was limited to some 20 to 30 minutes since the planes had only internal fuel. Even so, the mere presence of the P-47's caused the Luftwaffe to alter their interception tactics. Formerly the Germans had attacked the American bombers at the French coast but they soon learned to hold back until the Thunderbolts reached the limit of their endurance. On 28 July the 4th flew with 75 gallon external tanks for the first time and the subsequent success of the group on this date - and that of the 78th on 30 July - can be, to a large degree, attributed to the tactical surprise achieved by their use. The Germans waited to attack until after the American fighters were supposed to turn back and were caught with their pants down when the escorts pressed on. After this the use of external tanks became standard and the score of enemy planes rose rapidly.

In August and September 1943, the fighter strength of the Eighth Air Force doubled with the arrival of three new P-47 groups. The first on the scene was the 353rd (in August) followed by the 352nd and 255th in September. By the time these units went on operations, the tactics and

procedures for escort and fighter sweeps had been developed and proven in combat.

Though the introduction of the 75 gallon drop tank helped increase the range of the P-47, further improvements were required. The early ones were unpressurized and provided fuel only to get across the Channel. On one mission, however, the 4th continued inland with the fuel tanks until the enemy was actually encountered. The experiment worked and the other groups soon followed suite. Though this helped increase range, the real improvement came with the introduction of the 108 gallon tank. This allowed a range of some 375 miles for the Thunderbolt and cut down on the distance the bombers had to fly without escort. The Luftwaffe tried early interception of the fighters to force them to drop the tanks but this cost the Germans dearly and soon forced the resumption of the tactics of waiting until the American fighters turned for home.

The Eighth also introduced a relay system to extend the range of the fighters on escort missions. The P-47 was much faster than the B-17's and B-24's they escorted and used up their range in a much shorter period of time. To counter this, a fighter group would fly to a rendezvous point along the bomber route and then remain with the Big Friends as long as possible or until the next group showed up. The long line of bombers was protected not only by the fighter groups assigned for its protection but also by the constant stream of fighters en route to or from the rendezvous point. This relay system remained in use even after the P-51 had largely replaced the Jug as the principal aircraft used by the Eighth.

In October the 356th Fighter Group went on operations for the first time. In December the 359th joined the ranks followed by the 361st in January 1944. The arrival brought the fighter strength of the Eighth to a total of eleven groups (two P-38 units had also become operational). Sufficient men, machines and units were now on hand to convince headquarters other uses of the Jug should be considered. The mission of 25 November marked the inauguration of bombing by the P-47. The 353rd and 56th were selected to do the bombing while the 78th and 356th provided support. The plan called for the 353rd to dive bomb the German airfield at St. Omer after the 53 Jugs of

(Above Right) The 5th Emergency Rescue Squadron flew specially equipped Thunderbolts on air/sea rescue missions. Shown here are markers dropped to show the location of downed Allied pilots. (M. Kirk)

(Above Middle Right) A slightly different modification of a 5th ERS ship with the markers mounted on the wings aft of the wheel wells. A rubber life raft was carried on the center station. (M. Kirk)

(Above Far Right) Lt. Kahle of the 356th Fighter Group looks at the newly applied markings to his ship. By the late summer of 1944, the Jugs of the 8th had begun to take on very distinctive paint schemes. (W. Smelser)

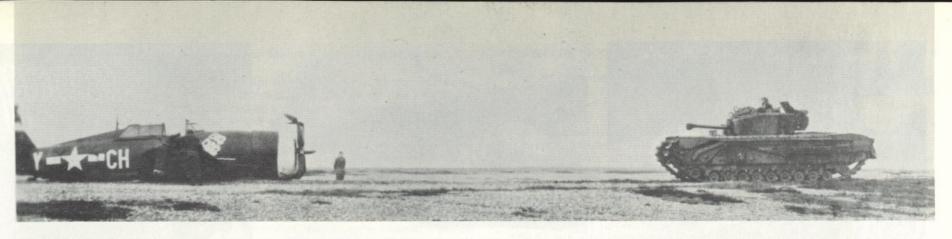
(Right) A new P-47D-28-RE of the 78th Fighter Group. Many of this group's bubble-tops were painted with medium green on the upper surfaces and sky blue lower surfaces. (USAF)

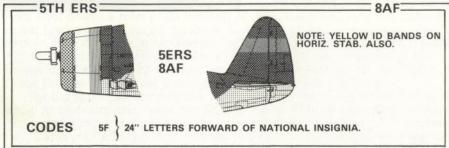


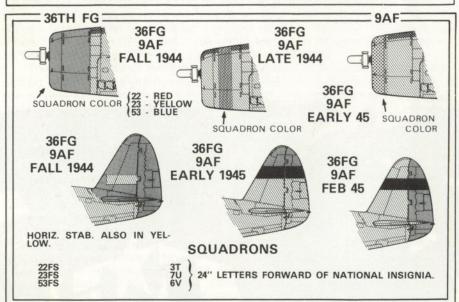












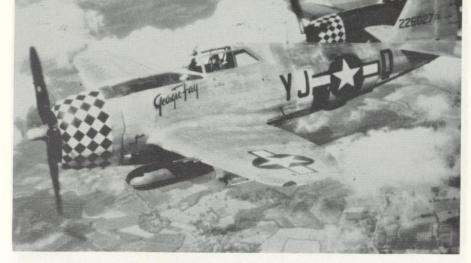
"Big Dog", a 9th Air Force P-47 of the 358th Fighter Group, after a forced landing. (Air Force Museum)

the 56th had made a drop using level bombing techniques. The P-47's from the 56th carried a single 500 pounder and flew formation on a B-24 that served as the sighting aircraft. Everything went well until it came time to drop the bombs. The release mechanism in the Liberator hung up momentarily and as a result the bombs were dropped late. Though very little damage resulted from the level bombing attempt, the 353rd had somewhat better success. The Thunderbolts of the Eighth did carry out fighter-bomber operations, especially during the Normandy invasion, but most were dive rather than level bombing.

Just as the advent of larger drop tanks had expanded the range of the Thunderbolt, the addition of the paddleblade prop and water injection expanded the operational horizons all the way down to the ground. Before this modification, there was a belief that the P-47 could not hold its own with enemy aircraft below 20,000 feet. With the greatly improved climb rate afforded by the new prop, aircraft returning from escort missions would drop down and blast any targets of opportunity that happened along.

The results were good enough that headquarters revised its policy and after early January implemented the doctrine of "Ultimate Pursuit". For the strategic bombing to continue, and grow, total air superiority was mandatory, and if the Luftwaffe would not rise to meet the challenge, the fighters were to go down after them. The Eighth helped encourage this by awarding victories for ground kills as well as those scored in the air.

The range of the Jug went up again in February 1944 with the introduction of the 150 gallon fuel tank. These came just in time for the "Big Week" (20-25 February), a period when massive raids against aircraft plants and assembly centers all across Germany were launched by the bombers of the Eighth. For the P-47, this also was a big week and marked the zenith of this fighter in the Eighth Air Force. After this the P-51 began to assume the major share of the missions and eventually only one unit, the 56th, would retain the Republic fighter.

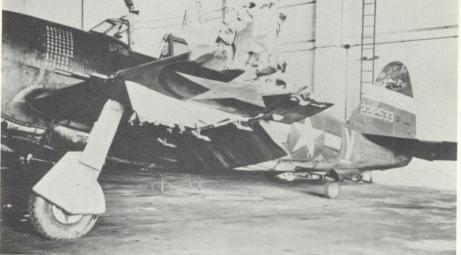


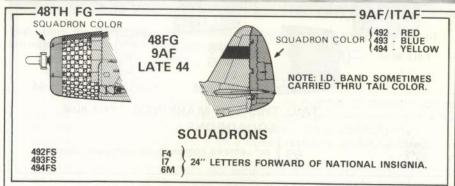
(Above) The yellow and black pattern on the nose of these Thunderbolts show them to belong to the 353rd Fighter Group. (W. Hess)

(Above Right) The damage to this 9th Air Force plane demonstrates why pilots loved the P-47 - it could take a lot of punishment and still bring the pilot home. (Air Force Museum)

(Below) A 371st Fighter Group ship warms up on an advanced strip in France. (Air Force Museum)

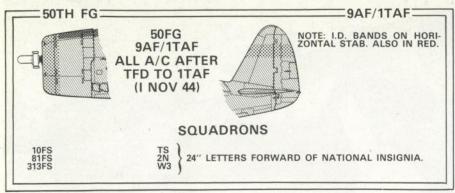


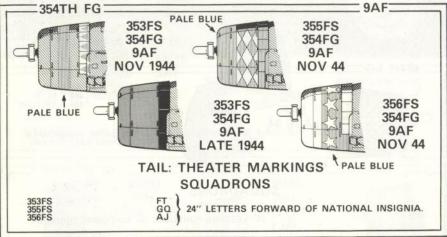


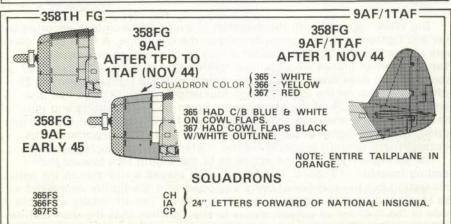


"Big Week" opened with the dispatch of over 1,000 bombers escorted by over 800 fighters and the Luftwaffe rose to the challenge. A total of 61 claims were entered by the fighters against a loss of eleven of their own. On the 21st, 33 German planes were claimed followed by 61 on the 22nd, and 27 more just two days later. "Big Week" closed with the fighters downing 25 Luftwaffe planes on the 25th. Though Mustangs and Lightnings had also participated, the bulk of the sorties were flown by Thunderbolts and most of the 218 German planes claimed were by units flying the Jug. In the five day period, over one eighth of all German fighters (and more importantly the pilots of these aircraft) available for the "Defense of the Reich" went down.

The spring of 1944 saw the activities of the Eighth turn toward the pending invasion of France. The Thunderbolt played a vital role in the aerial preparation but the number of units equipped with the fighter decreased as the Mustang began to appear in greater numbers. The 4th finally was able to trade in the P-47 for an aircraft closer to the Spitfires that the men had never really forgotten. The group converted in February 1944, followed by the 355th









in March, the 352nd in April and the 359th and 361st in May. By D-Day the number of P-47 units had decreased to only four.

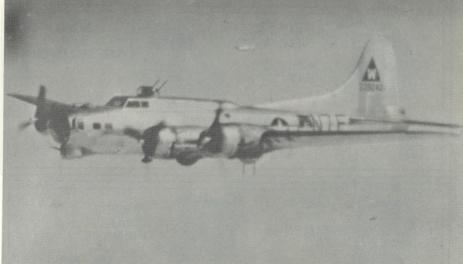
The months before the invasion had been spent in an all out attack on the transportation system in France and Germany. These missions had resulted in heavy damage to rolling stock, marshalling yards, roads and bridges and played a large part in keeping German reinforcements from the beach area. There was still a very real possibility that the Luftwaffe would strike and attempt to destroy the ships and landing areas. The job of Allied airpower on 6 June was to keep the German Air Force away. The RAF and the Ninth Air Force had the job of providing tactical support in the invasion area while the Mustangs and Thunderbolts of the Eighth were to form a protective screen in the form of a vast semicircle beyond the immediate area of the beaches. Whenever possible, these planes were also to attack anything moving toward the front.

On D-Day and for several days after, the fighter groups put up a truly maximum effort. Seven or eight missions a day were common, usually patrols over a specific sector. Most Luftwaffe units remained strangely quiet during the period and only a few worked their way close enough to strike the ground forces. Of the 26 enemy planes claimed on D-Day, three were claimed by the 56th Fighter Group.

By the end of June there was little question of the success of Overlord and the Eighth could go back to its principal role of being a strategic air force. The four remaining P-47 units continued to fly escorts but they were somewhat handicapped by range. The P-51 could fly all the way to any target in Germany and many of the deeper penetrations were escorted by the Mustang outfits. Larger drop tanks did, however, allow the P-47 to range beyond Berlin. Many of the older razor-back Jugs were now being replaced by the newer bubble-tops but this did little to improve performance (except



(Above & Left) When American forces over ran the Luftwaffe base near Gottingen, Germany, they found these P-47s complete with German markings. (USAF) (Bundesarchiv)



Just above the lead B-17, a Thunderbolt can be seen in its usual position of providing escort for the Fortresses. (USAF)

for giving the pilot better vision to the rear). The D-25 first began to reach the frontline units in late May 1944.

In October 1944, the 353rd converted to the Mustang followed by the 356th in November and the 78th in December. Only the 56th remained in the Jug in the entire Eighth Air Force. As if to show there was still a lot of life left in the old girl, the 56th, now under the command of Dave Schilling, registered the biggest single aerial score for the Thunderbolt when it downed 37 Luftwaffe planes on 23 December 1944. Though the enemy was on its last legs, it threw up several large gaggles of fighters and the 56th sent them right back down. Colonel Schilling led the scoring for the group by downing five of the German fighters.

To provide a higher speed for the Thunderbolt, Republic had begun testing the P-47M in late 1944. The only unit to receive the M-model was the 56th and it almost spelled the end of the unit's association with the Jug.

The first squadron to receive the P-47M was the 61st. Since the bugs were supposed to be gone from the plane, the older Jugs were shipped out as the new ones came in and the squadron was given five days to get the ships ready for combat. This was a tall order in itself but as events transpired it was impossible. Edward Lightfoot was flight checking one of the new ships when the engine failed and he had to belly in. Shortly after this a ferry pilot had a similar engine failure. Two such events in a short period were cause to ground the aircraft until the problems could be solved. The ground crews and Republic tech reps got right to work and in a short time solved them. Most were traceable to the electrical system or to minor mechanical problems that

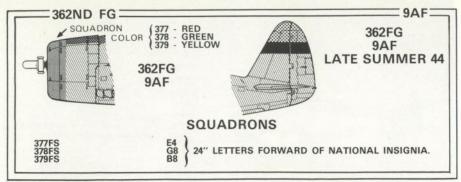
could be corrected without too much difficulty.

As the new ships continued to flow in, the number of operational sorties dropped but finally the conversion was pronounced complete and the 56th prepared to go back on full operational status. On 4 March the 62nd squadron sent fourteen P-47M's on a mission, six of which had to return to base because of engine troubles.

To counter these problems two solutions were implemented. First, severa P-51's were sent in so the group could begin conversion to the Mustang. This was met with considerable distaste by the pilots. They certainly didn't want to change over to the "Spam Can", as they derisively referred to it. The second solution created more work for the ground crews for it was decided to change the engines in all aircraft with less than 50 hours of flight time. When this was done, the P-47M was finally ready to go to war but by this time it was April and the war was almost over.

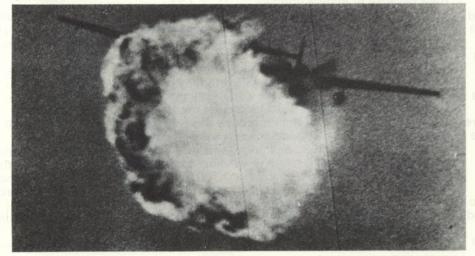
The Eighth Air Force fighter groups destroyed a total of just over 9,400 German planes of which almost 5,300 were aerial victories. An absolute measure of the P-47 in these figures is somewhat difficult but the four outfits flying the Thunderbolt through all or most of their combat tours (56th, 78th, 353rd, and 356th) accounted for over 1,500 aerial victories and 1,150 ground victories. Further, the 56th was the top outfit in the Eighth in terms of aerial victories. Add to this large numbers of locomotives, rolling stock, trucks, tanks and other vehicles, ground installations and weapons destroyed by the Jug and you have a very impressive record.

In terms of the men who flew the Thunderbolt, perhaps the best measure





The Me-110 was particularly easy meat for the eight .50 caliber guns of the P-47. Here, Bob Johnson scores one of his 28 victories on 8 October 1943. (R.S. Johnson)



of the plane is the fact that over one fourth of all aces (counting only aerial victories) scored all their victories in the big Republic fighter. Many others including such top guns as John Meyer, George Preddy, Ray Wetmore, Don Gentile, William Whisner, Duane Beeson, John Thornell, Henry Brown, and Don Blakeslee scored at least some of their victories in the P-47. Francis Gabreski and Robert Johnson, both of the 56th, scored 28 aerial victories each to lead all comers in aerial kills. The 56th also produced five other men with over fifteen victories including Walker Mahurin (21.), Dave Schilling (22.5), Fred Christensen (21.5), Hub Zemke (17.75), and Gerald Johnson (17.). The 353rd's two top aces were Glenn Duncan (19.) and Walter Beckham (18.) and both men scored all of their victories in the Thunderbolt.

Though many Thunderbolts went down before the guns of German planes, the majority of Eighth Air Force combat losses were due to causes other than enemy fighters. Of the nine strictly Thunderbolt aces, six went down while on combat operations but only one due to aircraft action. This was Bud Mahurin and he was hit by the tail gunner of his last victory in the ETO - a Do-217. It is interesting to note that all of these men survived the war.

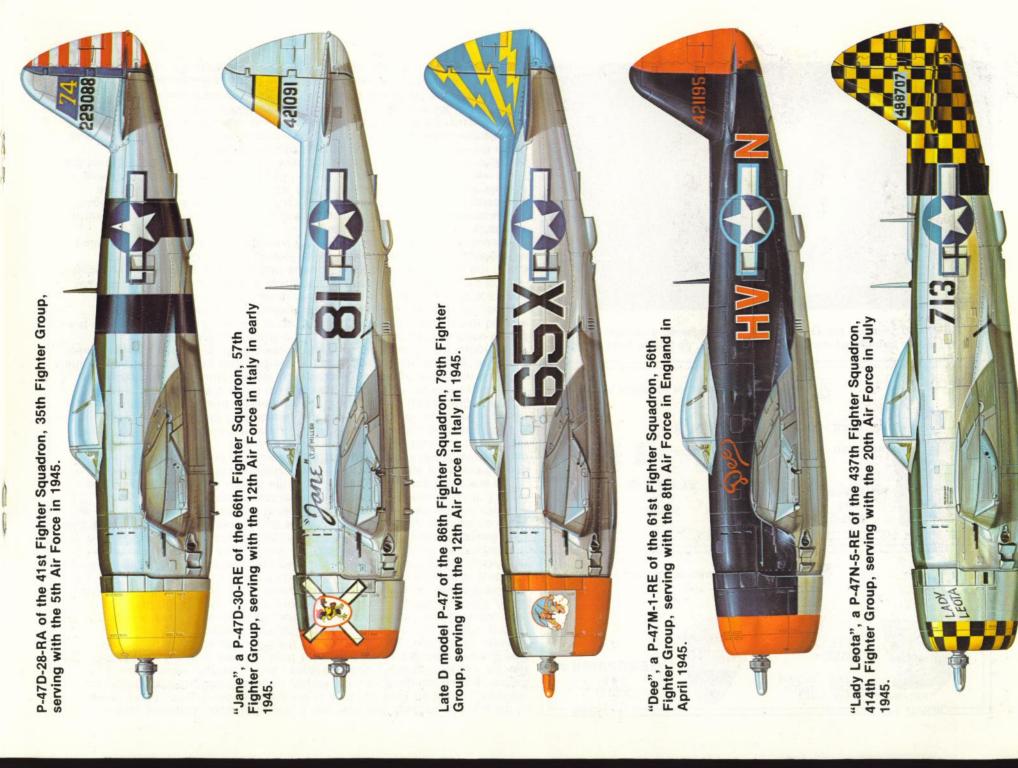
To end the discussion of the P-47 in the Eighth Air Force, perhaps the best commentary was provided by Major General William E. Kepner, commander of VIII Fighter Command. In a volume on fighter tactics distributed to pilots during the war, Kepner stated: "If it can be said that the P-38's struck the Luftwaffe in its vitals (due to its range) and the P-51's are giving it the coup de grace, it was the Thunderbolt that broke its back."

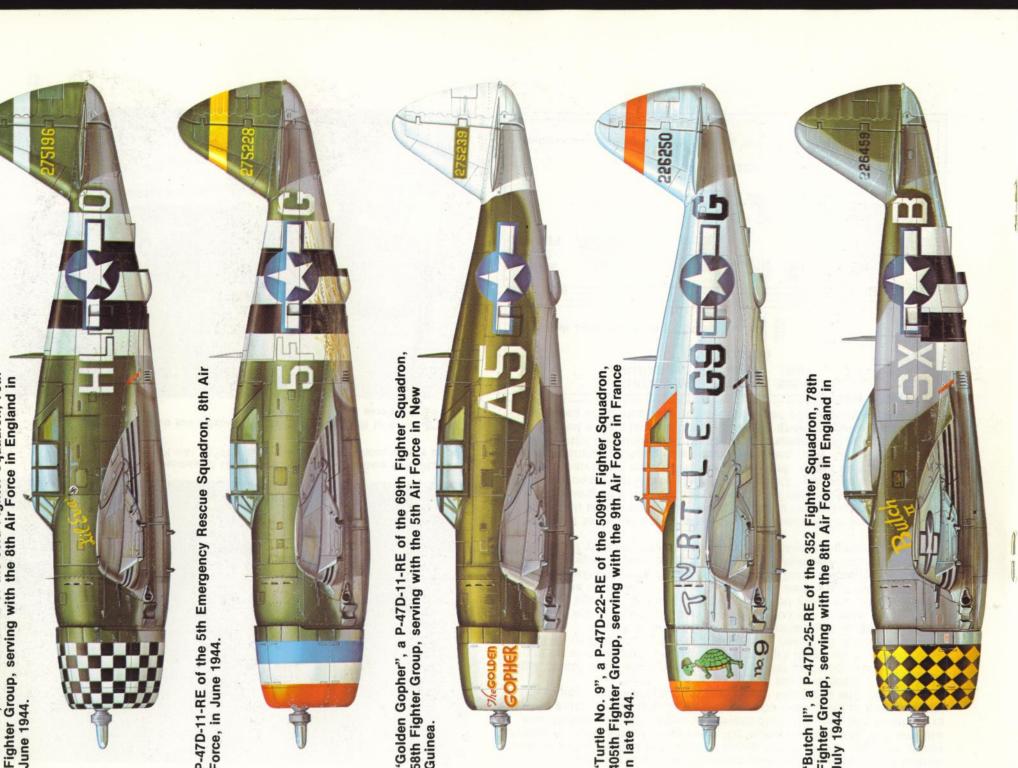
When discussing the air war in the European Theater, the Ninth Air Force is often overlooked. Its mission was tactical rather than strategic in nature and as a result the fighter units never had the opportunity to participate in the more "glamorous" aspects of aerial combat. The exception to this was the 354th fighter group but even this high scoring outfit is usually overshadowed by the units of the Eighth. The job of the Ninth was much more closely aligned to the foot soldier for it had to go in low and hit the Germans on the ground. This was dirty, dangerous and unforgiving work but it had to be done and the Jug played a large part in the success of the organization.

The Ninth had been in the Mediterranean during the early part of the war but in the fall of 1943 it became obvious that a tactical air force was needed in England to help pave the way for an invasion of the Continent. Consequently, on 16 October the Ninth was officially reactivated in England with only the skeleton of an air arm.

Surprisingly, the first fighter unit assigned to it was the 354th. The outfit was equipped with the Mustang, the first to arrive in the ETO, and it began operations in November 1943. The P-51 was a long range fighter and the 354th was soon flying escort for the B-17's of the Eighth Air Force. During the latter part of November and December four more fighter groups joined the Ninth including two each in Mustangs (the 357th and 363rd) and Thunderbolts (the 362nd and 365th). Two more P-51 outfits for the Ninth was just too much for the Eighth to bear so a swap was arranged in January 1944 whereby the 357th went to the Eighth and the 358th (P-47) went to the Ninth. By February, the Ninth had a total of five fighter groups operational.

During the first two months of 1944, the fighter groups - and the bomber units, for that matter - operated closely with the Eighth. Though targets of a



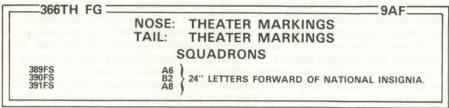


tactical nature were hit, escort of the B-17's and B-24's claimed priority. In March, however, the emphasis began to shift. The Eighth had experimented with the P-47 as a fighter-bomber but it remained for the Ninth to take the experiments and turn them into proven concepts. The Thunderbolt was ideally suited to the ground attack role with its massive structure and reliable radial engine. The Jug could lose one or more cylinders or large pieces of wing and still bring the pilot home.

The first dive-bombing mission for the Ninth came on 15 March when seven planes of the 366th Fighter Group dropped 250 pounders on the German airfield at St. Valery. This was followed on the 26th by attacks by several groups on marshalling yards and V-1 sites in France.

By April, many of the Luftwaffe units had withdrawn to the Fatherland to protect against the heavy bomber raids. This allowed the Jugs of the Ninth to really get down to the work they were intended for. In terms of priority, transportation targets rated number one. The V-1 sites and German airfields rated just behind. Also during this period, a new type of target, the fortifications along the coast of France, came in for raids by the marauding fighters.

The planning for Overlord was well along by the spring of 1944. The strength of the tactical air forces had risen as the scheduled date approached. Some thirteen P-47, three P-38, and two P-51 groups were operational by early May. These units would provide the support needed when the invasion began. Between 1 May and 5 June the tempo of the attacks stepped up. Even greater emphasis was placed on transportation and airfield targets in the Normandy area. On 21 May some 500 fighters found and strafed rail targets north of the Loire and entered claims for 46 locomotives destroyed. So heavy were the attacks during the period that







The light blue markings of the 353rd Fighter Squadron were later replaced by a solid yellow cowl. This ship was coded FT*O. (Air Force Museum)

A P-47D-30-RE of the 365th Fighter Group taxies out during the winter of 1944/45. (Air Force Museum)







there was little left to shoot at when the first few days in June rolled around.

On D-Day the fighters of the Ninth provided cover over the beaches and attacked targets called in by the ground forces. During the assault phase, five specific targets assigned to the air force were heavily attacked and four others were struck as targets of opportunity. These included known strongpoints and fortifications near the coast. The ground forces called on the fighters to strike batteries shelling them and bridges bringing German equipment to the front. One outcome of the day's activities was the establishment of a policy, whereby a number of squadrons would be kept available for short notice missions against targets of need. The Thunderbolts struck just behind the lines on the cooperation missions. From the 7th to the 18th of June claims of 1,000 motor transport vehicles and fourteen tanks were entered. Some highway bridges were knocked out completely while others were heavily damaged. Such close support also created road blocks to slow German troops and supplies in their movement from the rear.

Closely related to these activities was continuation of the interdiction campaign first initiated in May. The idea was to prevent any movement of equipment from points deep in France to the Normandy area. Bridges over the Seine, in the north and northeast, and the Loire, in the south, were attacked again and again. Rail cutting and bombings of marshalling yards also helped in this regard.

Because of the tactical nature of its mission, units of the Ninth Air Force moved to the Continent as soon as bases could be made available. Just thirteen days after the landings, the first field was completed and the 366th Fighter took up residence. By early July six more fields were in operation

and by the end of July, virtually all of the fighter units were based in France.

On 25 July, Operation Cobra, the breakout from Normandy, was unleashed. Between 0938 and 0957, eight fighter-bomber groups bombed and strafed an area some 7,000 yards long and 250 yards wide. This was followed by an attack of some 1,500 Eighth Air Force heavy bombers. No sooner had the ground ceased to shake when another seven fighter-bomber groups swept in to renew attacks on the eastern and western segments of the area. All together, 559 fighters mostly Thunderbolts, dropped over 200 tons of bombs. The havoc created by the intense aerial bombardment dazed the German troops in the sector and the American First Army poured through the gap and on toward the heart of France. The next six days saw some of the closest cooperation between the P-47's and the ground troops.

The pattern establishment at Normandy and expanded during Cobra continued during the race across France and on into Germany. As the ground troops advanced, the Thunderbolts of the Ninth acted as their aerial extension. Bases were established as close to the front as practicable to minimize the time to reach the target.

Toward the end of September three Jug outfits (50th, 358th and 371st) from the Ninth were transferred to the 1st Tactical Air Force. Joining these were units from the Twelth Air Force and the entire French First Air Force. The fighter strength of the Ninth was reduced to fifteen groups but there were still plenty of aircraft to get the job done.

When the German Ardennes Offensive was launched in December, the weather was bad enough to keep most of the aircraft on the ground. Even so, the Ninth flew some 5,300 sorties during the period of 23 to 27 December.

(Left) One of the ground troops rides Glenn T. Eagleston's FT*L (44-20473) to help guide him in. Eagleston was the top 9th Air Force ace. (Air Force Museum)

(Far Left) A closer look at the personal markings on Eagleston's aircraft.

(Right) The 495th Group was an operational training unit and, as a result, suffered a rather high accident rate. Many of its ships were older aircraft from operational outfits. (Air Force Museum)

(Below Right) Thurman Schreel (on the left) and Charles Taylor led a team of ground personnel of the 56th Fighter Group in converting an older P-47 into a two-place airplane. The plane, coded UN*Q (42-75276) was later equipped with radar and used on several operational missions toward the end of the war. (T. Schreel)

The 406th Fighter Group earned itself a Distinguished Unit Citation for its effort during this time. The group provided direct support to the beleaguered forces at Bastogne (only twenty minutes flying time from its base). Some 81 missions were flown to the area - most within ten miles of the town. On three successive morning flights the Thunderbolts arrived just as the Germans attacked and helped the defenders repulse the attackers. In addition to destroying thirteen German aircraft, the 406th, knocked out 610 motor vehicles, 194 tanks or armored vehicles, and 226 gun positions. Quite a week's work!

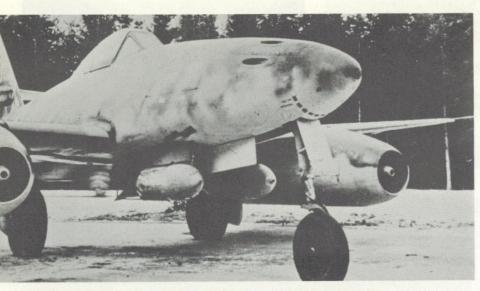
The year 1945 opened with an all out assault by the Luftwaffe on Allied air bases in Belgium and Holland. No matter how well conceived the plan may have been in the mind of Hermann Göring, in practice it was a failure. The Americans lost some 30 planes and the RAF 120 but there were few casualties among the pilots. The Germans, on the otherhand, lost some 200 planes and pilots - a very large dent in the strength of fighters so desperately needed to defend what was left of Germany. Typical of the actions was that occuring at Asche, Belgium. Eight Thunderbolts of the 366th had just taken off when the attack hit. The planes had no choice but to enter the fight at ground level. When the smoke had cleared, the pilots claimed a total of twelve victories. In addition, the gun crews on the ground claimed seven and the 352nd (a visiting Eighth Air Force Mustang unit) claimed 23. Out of an attacking force of some 50 German aircraft, 42 were destroyed.

As the victorious Allied armies rolled across the Rhine into Germany, the Thunderbolts of the Ninth went along. Whenever and wherever targets could be found they were pounded. Whereas the Eighth ceased operations on about 20 April (there were no more strategic targets) the Ninth continued to fly right up to 8 May. In the last campaign (25 March to 8 May) fighter-bombers flew 29,200 sorties and were credited with 240 Luftwaffe aircraft destroyed in the air and 1,495 more on the ground. The last P-47 lost in the ETO came just one day before Germany surrendered when a plane from the 405th crashed while buzzing a POW camp.

Though most of the coverage of the Ninth has dealt with the use of the Thunderbolt as a ground attack fighter. Thirteen pilots who flew the P-47 exclusively made ace with top honors in this category shared by Paul Douglas (368th), Edwin Fisher (362nd), and George McLaughlin (404th). With seven victories each.



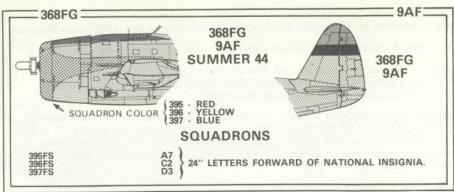


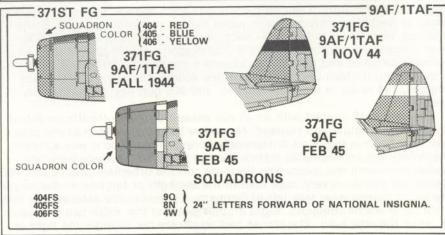


The latter stages of the war saw the introduction of the first operational jet fighter - the Me-262. Though superior in performance, this plane was severely limited by a lack of fuel and several fell before the guns of P-47's. (H. Rossbach)

Mike Jackson of the 56th stands in front of his P-47M. The plane, coded LM*J (44-21117) was in gray and green on the upper surfaces and natural metal below. (D. Morris)

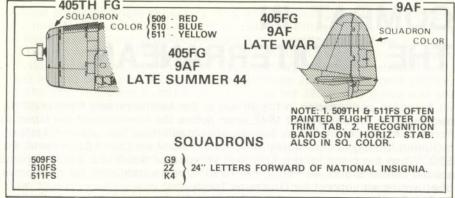


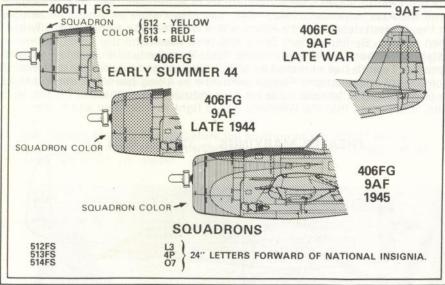


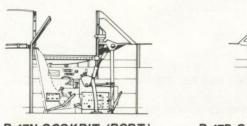


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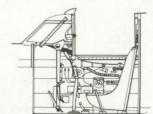
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P-47D COCKPIT (STARBOARD)



Perhaps the gaudiest color scheme applied to the Jug was that used on the 61st Fighter Squadron's P-47M's. This was Russ Kyler's ship and was black on the upper surfaces, natural metal on the lower and carried a red nose and rudder. The codes were in red with white outlines and the surround for the national insignia was pale blue. (L. Lester)

The M-models of the 63rd were also rather bright. "Ole Miss" was flown by Edgar Huff and "Fireball" by Flip Kuhn. The ships were done in two-tone blue on the upper surfaces with natural metal codes, bright blue rudders and red noses. (E. Andermatt)







COMBAT IN THE MEDITERRANEAN

American participation in the air war in the Mediterranean Theater (MTO) had begun in the summer of 1942, even before the formation of the Ninth Air Force in August of that year. Though the organization flew many missions, including the big one to Ploesti, it is best remembered for its service in the ETO. When the plans for the American invasion of Northwest Africa began a second United States Air Force, the Twelfth, was established for the purpose of providing air support for Operation Torch.

The Twelfth began combat operations in November 1942 and, from then until the Axis surrender in May 1943, was responsible for American air power in the western desert. When Africa was won, attention turned to Sicily and then to Italy. By September, Sicily had been taken and the Allies had established themselves firmly in the "Soft Underbelly of Europe". Until this time the Twelfth had operated as both a tactical and a strategic air force. The complex of bases around Foggia were now in Allied hands - a second front in terms of heavy bomber raids on Axis industry was possible. On top of this, it appeared that the Germans would fight to hold Italy and better



1. AIRCRAFT IDENTIFICATION NUMBER OR LETTER LOCATION VARIED BETWEEN GROUPS.

(Top) Lt. William Carswell of the 319th FS, 325th FG in his number 79.

(Center) Ground crew loading rockets in launch tubes of a 12th Air Force Jug in Italy. (USAF)

(Bottom) Aircraft of the 325th Fighter Group on the line at Foggia. (W. Hess)

tactical air support was necessary. These factors mitigated for the formation of a new Air Force and on 1 November 1943 the Fifteenth was born. The new air force assumed the strategic role while the Twelfth retained the tactical.

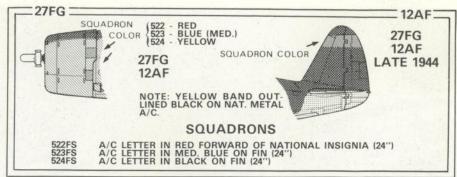
Though neither would ever rival the Eighth or Ninth Air Forces in size, the missions of each was similar to its ETO counterpart. The Thunderbolt was used in both but it was with the Twelfth that the Jug saw the most service.

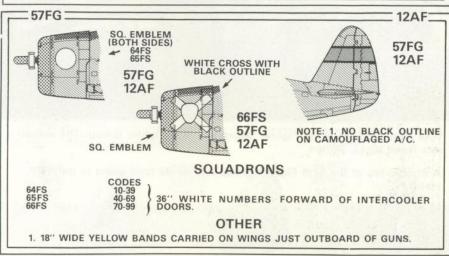
The first Thunderbolt unit in the MTO was the 325th. The group was still stationed in Africa when Colonel Robert Baseler, commanding officer of the group, flew one in to the acclaim of the pilots. Though it would be assigned to the Fifteenth, the 325th had been equipped with the P-40 and the men had no desire to carry out the long escorts anticipated with the old Curtiss product. During November, a steady flow of Jugs came to the group. Colonel Baseler realized the vast differences between the new ship and the P-40 and knew that completely new techniques would be needed on operations. He requested, and got, three pilots from the Eighth Air Force - all from the 4th Fighter Group - to help the men learn the lessons of survival and tactics.

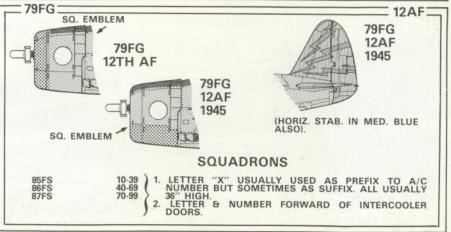
In December, the 325th moved to Foggia and began operations even before all of the ground personnel had arrived. The first mission, an escort to Greece, came on 14 December. From then until the end of January, the pilots split their time between operational flying and practice missions. The big day for the group while equipped with the P-47 came on 30 January 1944. The plan called for the 325th to precede the bombers, slated to hit German bases in

Colonel Chester Sluder's aircraft before the addition of the 325th Fighter Group checker tail motif and his personal markings. The aircraft later carried the name "Shimmy". (W. Hess)











"Ole Baldie" of the 525th Fighter Squadron, 86th Fighter Group. The aircraft was flown by Lt. Botten.

A Bubble-top of the 57th Fighter Group sits on its hard stand in Italy. (W. Hess)



the Udine area, by fifteen minutes and hopefully catch the Germans flatfooted.

Major Herschel Green was leading a section of four aircraft on the mission when he spotted some fifteen Ju-52's flying at an altitude of 1,000 feet. Green led his section around so it could attack the transports from out of the sun. Down went the Jugs and then, down went the Ju-52's. Green blasted four of them from the sky while the other members of his section finished off eight more. In addition, the major destroyed a Do-217 and a Macchi 202 for a total score of six. The remaining members of the 325th tangled with a large number of German and Italian fighters and destroyed 28 of them.

The 325th continued to fly the Thunderbolt until May 1944. Its last mission in the Jug came on 24 May. The Fifteenth, as the Eighth had done, decided to standardize on aircraft with a greater range - the P-38 and the P-51.

While the Fifteenth traded in the P-47, the Twelfth converted to this type. A total of six P-47 outfits were destined to see service with this organization. Like the Ninth, it concentrated on air-ground operations and the commanders believed the Jug ideally suited to the task.

The first of the tactical units to receive the P-47 was the 57th Fighter Group. The new ships arrived in January 1944 and were immediately put to use flying interdiction missions behind enemy lines. Bridges, roads, the railway system, and every other means of transportation were hit. For a series of attacks on 14 April 1944 against targets in the Florence-Arezzo area, the 57th received a Distinguished Unit Citation.

In March 1944, the 79th Fighter Group re-equipped with the P-47. Two more units (the 27th and 86th) switched to the fighter in June and two more (the 324th and 350th) in August. For the 27th, it had been a long journey. In the early days of World War II, the group had been in the Philippines and twenty of the pilots had flown to Australia to get aircraft just after the Japanese attacked. Transferred to the United States without men or machines, the unit had eventually arrived in North Africa where it flew A-20's and later A-36's. It had then converted to P-40's and finally to the Jug. As soon as these five new groups became operational, they joined the 57th in fighter-bomber operations.

On 15 August 1944, the Allies invaded France from the south in Operation Dragoon. The Thunderbolts of the Twelfth provided close air support during the landing and for some time after. Early September found the troops from the south joined with those that had broken out of Normandy. The fighter units then returned to Italy to resume operations in that country. The 324th Fighter Group, however, remained in France and became a part of the 1st Tactical Air Force.

The war in Italy was measured in terms of a gain of a few miles or a few yards. When the war in Europe ended, all of the country had still not been cleared. The P-47's of the Twelfth continued to soldier up to the very end. It was toward the end, late April 1945 that one Jug pilot won the Congressional Medal of Honor. Raymond L. Knight of the 350th participated in group missions against heavily defended airfields in Northern Italy. During these strafing raids he destroyed at least twenty Luftwaffe planes on the ground



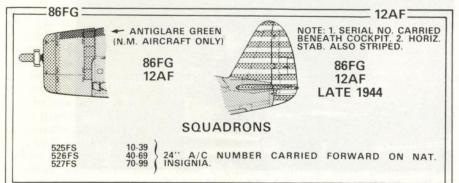
The Thunderbolt frequently escorted the B-24 on long range missions. (USAF)

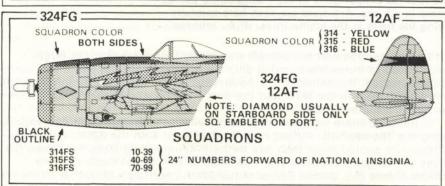


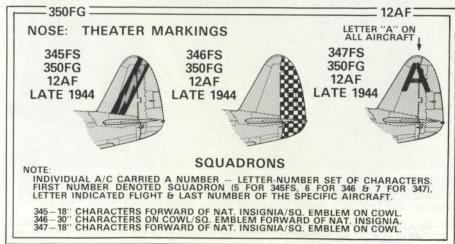
In Italy, the 12th Air Force was used for tactical support. Here a three-bomb cluster is mounted on the wing pylon before a mission. (M. Kirk)

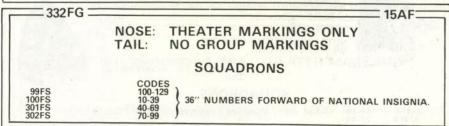


The Bf-109 was a frequent foe of the Thunderbolt in the skies above Europe. (Bundesarchiv)



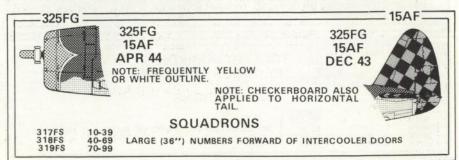








Ground crewmen work on a P-47 of 1 Grupo de Aviacao de Caca arming the plane. This outfit was Brazilian and flew as a fourth squadron to the 350th Fighter Group. (USAF)





The four .50 caliber guns in each wing could use up ammo in a hurry. Armorers are seen here carefully laying the belts in the ammo trays. (R.A. Johnson)

but on his last mission his aircraft was hit by flak defending the target. Knight tried to nurse his crippled ship back to base but the plane was too badly damaged. It crashed in the Apennines killing the pilot. Knight was the only fighter pilot in the MTO and the only P-47 pilot in Europe to be awarded the nation's highest medal.

In the MTO there were seventeen aces with at least some of their victories flying the Thunderbolt. All but two of these were with the 325th. Six of the 325th pilots scored more than five in the P-47 including Herschel Green (10 of his 18), Eugene Emmons (9.), Lewis Chick (6.), Edsel Paulk (5.) and William Rynne (5.). James Fenex of the 324th and Ralph McArthur of the 79th were the two aces outside of the 325th.

COMBAT IN THE PACIFIC

Before the start of the Japanese onslaught in the Pacific, the United States had vastly under-rated its future enemy's aerial ability. Such relics as the P-26 and P-35A were still operational in December 1941. When the attacks came, the Zero was in the vangard. It was a rude awakening for America.

In early 1942 the remnants of what had been the Far East Air Force were reformed in Australia as the Fifth Air Force and participated in the defense of Port Moresby (New Guinea), Darwin and the northern coast of Australia. Flying aging P-39's and P-40's, the pilots of the Fifth faced a superior enemy and suffered heavy losses. By August, there were only 245 fighters available to the air force and of these, 170 were awaiting salvage or being overhauled. The enemy was expected to attempt to take Port Moresby and drive the Allies from New Guinea. From there, it would be a simple matter to launch an assault on the Australian Continent.

This was the situation facing General George C. Kenney when he replaced Major General Lewis H. Brereton as commander of the Fifth Air Force on 4 August 1942. Kenney, a former World War I fighter pilot, had a reputation as an out-spoken, tough, practical leader who got things done. His first priority was to clear the skies above New Guinea so the Allies could control the entire island. Dependable men were put in positions of authority, those who were too tired or not capable of leading were sent home and red tape was cut to get the much needed supplies to operational units. Just three days after Kenney took command, the Fifth was able to launch a bombing strike of sixteen against the Japanese base at Rabaul. Though not large, it did serve to keep the Japanese away from the landings at Guadalcanal and the mission did give an indication of what lay ahead.

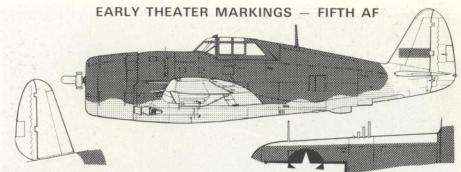
The war in the Pacific was separated from the one in Europe by much more than half a world. It was a war of vast distances mostly over jungle or open water. Range was a critical element.

The P-38 with its two engines and long range was the favored Army fighter in the Pacific but every other American type was used. The P-47 also operated with the Fifth Air Force. The first group, the 348th, arrived in June 1943 and commencing combat operations in July.

The 348th was under the command of Colonel Neel E. Kearby and was the third unit in the USAAF (the second to be shipped overseas) to work up on the Jug.

When Kenney had taken command in the southwest Pacific, the Allies had held Port Moresby, on the southern coast of New Guinea, and little else on the island. The Japanese had landed at Buna and were pushing across the Owen Stanley Mountains toward the city. In the year since then, the enemy forces had been driven back across the mountains and American forces were established on the northern coast. Lae and Wewak, the home of strong Japanese air organizations, had so far prevented Kenney from realizing his goal of achieving total air superiority over the island.

With the addition of the 348th and the 475th, a Lightning unit, Kenney made plans to knock out the Japanese bases and toward this end built an advanced fighter base at Tsili-Tsili, only 60 miles from Lae. The enemy

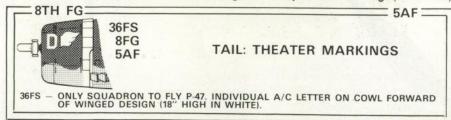


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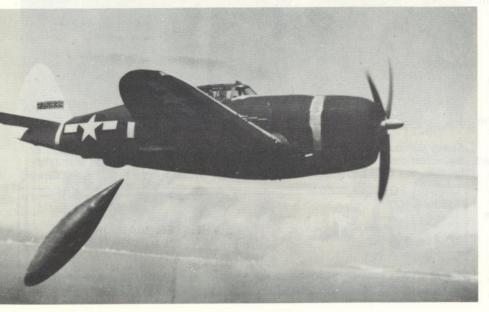
Kenny Giroux, second from the right, and other members of the 36th Fighter Squadron pose in front of Giroux's aircraft. The winged letter was standard for this, the only squadron in the 8th Fighter Group to use the Jug. (W.Giroux)





"My Jeanne" of the 348th Fighter Group shortly after the group arrived in the Southwest Pacific.

The same aircraft just after it released its wing tank. (Air Force Museum)



discovered what was happening on their door step and launched a strafing attack on Tsili-Tsili on 16 August. Among the American planes sent up to meet the attacking enemy were Neel Kearby's Thunderbolts. The Japanese lost some fourteen aircraft on the raid and the 348th got its share. For the next two days, the United States airplanes hit the bases at Wewak with bombs and strafing attacks. The results showed destruction of some 175 aircraft on the ground. General Kenney was close to his goal and, although there was still a lot of fight left in the Japanese, their airpower had received a heavy blow - one from which recovery would be difficult. Lae fell to the Allies the following month.

On 11 October 1943, Neel Kearby, got into a fight with the Japanese on a fighter sweep to Wewak and for the action was awarded the Congressional Medal of Honor - the first American fighter pilot to win the honor in the war. Kearby was leading his flight of four aircraft when he spotted a lone Zero below and led his flight down. With a short burst, he dispatched the plane and pulled out of the dive to return to altitude. Just as he did he spotted a large formation of Japanese fighters and bombers. The four Thunderbolt pilots shoved their throttles forward and went tearing into the formation. With eight .50 caliber guns blasting away and the enemy planes so vulnerable to torching, it didn't take the colonel long to knock down four more. He then spotted two Zeros attacking one of the P-47's and went after them. Again, his fire hit home and the two planes went down. Neel Kearby had downed seven planes on the mission but he never received credit for the last one. His gun camera had run out of film and no one had seen number seven crash. On 4 March 1944, Kearby was again leading a four ship flight and after shooting down two Japanese planes was himself shot down and killed. At the time he was tied for the lead in the Pacific victories with 22.

Toward the end of 1943, more Thunderbolts began to arrive in the southwest Pacific. One group, the 35th, converted to the P-38 completely while single squadrons of the 8th and 49th switched to the P-47. Though the two squadrons remained in the aircraft for only a few months, the 35th Fighter Group stayed with the Jug until March 1945. In early 1944 the 58th Fighter Group arrived in the Theater to become the third all P-47 outfit.

As in Europe, not everyone in the Pacific was pleased to get the Thunderbolt. The 9th Squadron of the 49th Fighter Group had been flying the P-38 when the word came that it was going to convert to the P-47. Ralph Wandrey ended up with a score of six victories and remembers the arrival of the new ship this way: "We were extremely unhappy about the 'Jug's' and after a few flights, I called my plane 'Republic's Abortion'. It had all the flying qualities of a ruptured duck, and its climbing ability was almost equal to that of a brick." Wandrey had occasion soon after the conversion to experience the ruggedness of the big fighter and, though it didn't necessarily make him a true believer, it did give him a little more respect for the ship.

While the 9th Squadron was in the process of moving to Gusap, some 100 miles from Lae, word came in to Wandrey's flight that the new base was under Japanese attack. His four ship flight intervened but Wandrey found he could do little but try and scare the enemy - his guns wouldn't fire. He tried to bluff one Zero but the enemy pilot wouldn't take the bluff. The Japanese pilot came in from dead ahead and opened fire. All Wandrey could do was



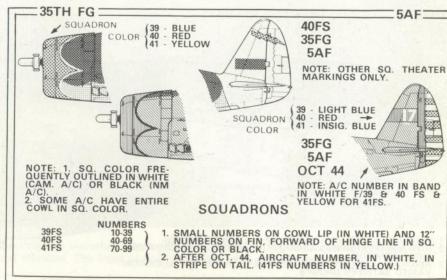
Major opposition for the Thunderbolt in the Pacific came from the Zero. Here a captured fighter is given the once over by the men who will have to face it in combat. (S. Woods)

crouch down behind the big engine and fly straight ahead. The two planes missed by only a couple of feet and Wandrey gratefully headed his ship in for a landing. The left side of the plane was hit in some twenty places and the left wing was riddled. Only then did he find that his gun switches had not even been connected. In the action, however, the guns of Gerald Johnson, 9th Squadron C.O., had worked and he downed two Japanese planes. Johnson's wingman also scored a double.

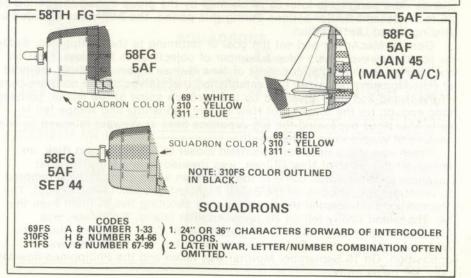
There was always a certain amount of competition between the P-47 and P-38 jockies regarding the relative merits of the two ships. One of the big questions was the speed of the two so in early 1944 a race was held to see which would come out on top. Neel Kearby was the pilot for the Jug while Richard Bong flew the Lightning. Two better candidates couldn't have been found for both were among the top aces in the theater. The two planes, with full combat loads began the race wingtip to wingtip over Nabzab and headed for Gusap. The fighters flew at tree top level the entire way and when they arrived at their destination, Bong and Kearby were dead even.

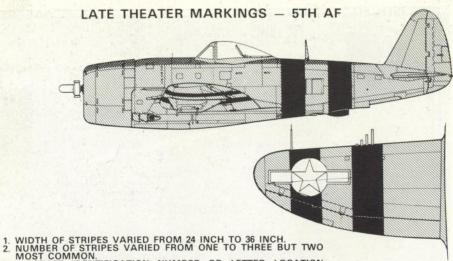
Rabaul was the major Japanese base in the southwest Pacific and as such was a major objective of the Allied forces in the area. In October the Fifth Air Force began the final reduction of the stronghold from the air along with Navy aircraft. Eventually Rabaul was cut off from the rest of the Japanese defenses and allowed to wither until it was no longer a threat to the Allies. It never was invaded.

The invasion of New Britain came in December 1943 and the Thunderbolt was in the midst of the air support. The main landings came on the 26th of the month at Cape Gloucester and Japanese opposition from Rabaul was not









AIRCRAFT IDENTIFICATION NUMBER OR LETTER LOCATION VARIED BETWEEN GROUPS.

long in coming. A force of 25 Vals with 50 Zeros as escort came over in the afternoon to attack the American fleet. These planes were met by the P-40's of the 35th Squadron, P-47's of the 36th and P-38's of the 431st. All together some 22 Vals were claimed as well as 24 of escorting fighters. A little later two squadrons of the 348th intercepted fifteen Betties, with fighter escort and downed fourteen of the bombers and two fighters. These sixteen enemy planes were part of the total of 79 claimed by the group during the period of 16 to 31 December. For actions during this period, the 348th was awarded a Distinguished Unit Citation.

he could, however, there were a number of objectives to be taken. First on the agenda was the total conquest of New Guinea. From the small toe-hold at Port Moresby, the Allies had established themselves on the northern coast of the island and then advanced up the northern spine of the island, pausing long enough for the invasion of New Britain. Hollandia and Aitape fell in early May (thus bypassing the big Japanese base at Wewak) followed by the capture of Wadke later in the month.

There was still a need for an airfield closer to the action, so Biak, an island off the coast of New Guinea, was invaded in late May. The first Japanese aerial reaction came in the afternoon when eight Zeros attempted to penetrate the air cover of the 342nd Fighter Squadron (348th Group). The Thunderbolts intercepted the enemy planes shooting five of them from the air. The island finally fell on 20 June. Another island, Noemfoor, was captured in early July. Later in the same month Cape Sansapor, the last Allied objective on New Guinea, was invaded but this time there was no opposition. On 15 September Morotai was taken and the Philippines now lav only 300 miles away.



P-47's of the 318th Fighter Group lined up for inspection in Hawaii. Shortly after this picture, the planes were loaded aboard two escort carriers and headed for Saipan. (Air Force Museum)

With the Fifth Air Force on Biak, Sansapor and Morotai, the Japanese abandoned their air bases in the Celebes and Halmaheras. In October the air forces under General Kenney launched a series of raids against Balikpapan. Borneo. The purpose of these were to destroy oil supplies of the Japanese and they called for the fighters going along on escort to fly maximum range missions. Major John Young, Operations Officer for the 35th Fighter Group. had this to say about the long range involved: "The missions were fighter sweeps designed to clear the target of Japanese aircraft at the moment the Liberators were coming in to do their job. Balikpapan was 835 miles from General MacArthur had set the goal of returning to the Philippines. Before Morotai and in order to reach it, it was necessary to equip the P-47's with three external tanks. The wing tanks were dropped as emptied, while the 75 gallon belly tanks were kept during the entire combat. It was obvious that even with the added gasoline supply, it was necessary for each pilot to use every trick we had developed in conserving fuel to reach the target and return."

Major Douglas Parsons was Deputy Commander for the 35th during the period. He recalled: "We flew our new P-47D-28's 835 miles on offensive sweeps to precede the bombers into the area. Tactics involved going in at an altitude of 20,000 - 30,000 feet and then boiling down into any enemy fighters that took to the air. After a few passes, everyone headed for home. It was pretty much of a rat race, but the tactics worked. We shot down fifteen Japanese planes each of the two times we drew the mission to Balikpapan. Two pilots were lost during these missions, one of whom ran short of gasoline less than two hours from base."

The invasion of the Philippines had originally been planned to hit Mindanao but the Allies were convinced the Japanese air and sea forces were weak. As a result, the southernmost island was bypassed and the first

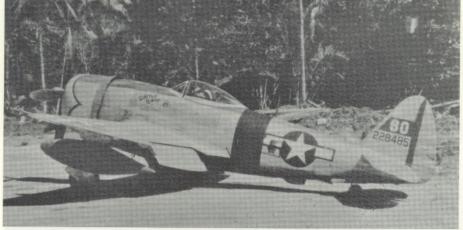


A P-47D of the 35th Fighter Group at Clark Field in 1945. The first aircraft in the line belonged to 201 Escuadron Aero de Pelea (Mexican Air Force). This unit flew as a fourth squadron to the 58th Fighter Group and its aircraft carried green, white and red vertical stripes on their tails. (USAF)

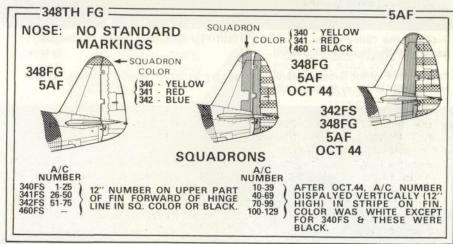
landings took place on Leyte on 20 October. The invasion took place near Tacloban and Dulag and by the 26th of the month the Fifth was operational from these air fields. The Japanese launched a major sea offensive to try and dislodge the Americans but the Combined Fleet never reached its destination. Naval airpower met the enemy fleets and in the battle of Leyte Gulf virtually ended the ability of the Imperial Navy to continue large scale naval actions.

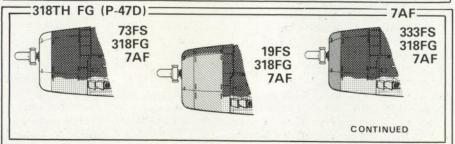
The losses at sea did not stop the Japanese from trying to reinforce their troops on Leyte. From the latter part of October until the 11th of December, some eleven convoys were sent to run a gauntlet of fire but, of these, 124 ships and barges were sunk. Three years to the day after the attack on Pearl Harbor, the Americans made another landing on Leyte, on the western side of the island, at Ormoc. The Japanese also tried to land a brigade nearby and heavy fighting erupted in the air, on the ground and at sea. All together, 53 fighters were claimed by American fighter planes including two by the 460th Fighter Squadron (348th Group). Four days later the Japanese tried to get another convoy in but it suffered the same fate as the earlier ones. Though fighting continued on the island until 8 May, no further attempts at landings were made.

Before the main island of Luzon could be invaded, an airbase closer to this island was needed. Toward this end, Mindoro was invaded on 15 December and by the 20th, American fighters were operational from the air field at San Jose. The Japanese had been surprised by the initial landings but soon responded with a naval attack against the Allied transports. No American naval units stood between the Japanese and their goal, only the aircraft of the Fifth prevented a disaster.



Sporting two victories, "Battle Baby" of the 41st Fighter Squadron awaits its next mission. The front of cowl is yellow with a black outline.







P-47s of the 19th Fighter Squadron, 318th Fighter Group being loaded on carrier for the journey to Saipan.

The 318th Fighter Group entered the war by flying off escort carriers on to a newly built strip on Saipan. (USAF)



One of the units based at San Jose was the 58th Fighter Group. The unit had joined the Fifth almost a year before but most of its missions had been ground attacks rather than ones involving action with the enemy in the air. As a result, the group had relatively few victories in the air. The night of 26 December, saw the outfit ready however. Colonel Gwen Atkinson led the group at this time and he recalls the events: "There is no doubt in my mind that the toughest mission in which I participated was the one on 26 December. We were ordered to attack and disperse a Jap naval task force consisting of a heavy cruiser, a light cruiser and six destroyers attacking Mindoro. With nothing more than .50 caliber slugs and guts, there being insufficient time to bomb up, we attacked with our P-47's. If it were possible to fly through an open blast furnace I don't believe it would compare to the gunfire that opened up on us from those eight boats. Twenty-nine from our group participated in the mission and how any of them came out alive is still a mystery to me. We lost ten pilots and had one badly injured (five of the ones shot down eventually were located). The Japanese force withdrew with the loss of two destroyers after a weak attempt at shelling the air field that did little damage." For its action, the 58th received a Distinguished Unit Citation as did the three other air units participating in the attack.

Once San Jose was operational, fighters could be launched to cover the bombers raiding Clark Field. From 22 December until the end of the year, six attacks were flown and resulted in claims of 94 by the American fighters. On the 24th, the four squadrons of the 348th Fighter Group (the unit was one of the few American units to operate with four squadrons) flew escort. The enemy, for once, showed up in strength and a vicious air battle ensued. When it ended some 45 minutes later, 32 Japanese fighters had been shot down and the 348th had lost four of its own.

Luzon was invaded on 7 January 1945 and by the 15th of the month American fighters were operational from Lingayen. There was little enemy air opposition and the Thunderbolts of the 5th went over to the ground attack role. Anything that moved on the ground was fair game. Trucks, Japanese soldiers, gun emplacements, rail traffic, and carts felt the sting of the eight .50 caliber guns. Lingayen was only some 50 - 200 miles from the front lines so it was possible to fly several missions each day. Until the 10th of March, virtually all the fighters of the Fifth were engaged in this activity but after a short time, the longer ranged P-38's and P-51's were pulled out to begin sorties against more advanced targets. Both the 35th and 348th Fighter Groups converted to the Mustang in March and only the 58th continued to fly the Thunderbolt. The 58th continued to support ground operations until enemy resistance finally ceased in July.

Though the Fifth Air Force was not the only air force operating in the Pacific, it was the only one to operate the Thunderbolt in combat until the middle of 1944. The Central Pacific had largely been a Navy show and most airpower flew off the decks of aircraft carriers. In June 1944, however, the Marianas were invaded by American troops and there was a need for aircraft to support the troops on the ground. In Hawaii, the 318th Fighter Group (of the Seventh Air Force) were mounted in the Jug and a decision was made to bring this outfit into Saipan, the first of the Marianas to be hit, as soon as an airfield could be made available. The Thunderbolts of the group were



The Oscar was a major Japanese aircraft type faced over the Pacific by the men flying the P-47. (W. Smelser)

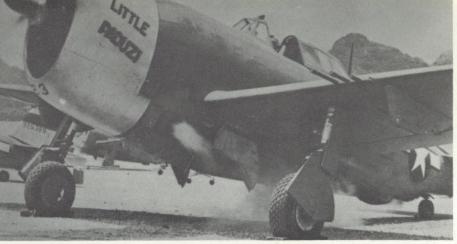
loaded aboard two escort carriers and sailed for the invasion area. Though the task force was subjected to Japanese bomber attacks, all 71 planes were launched from the carriers, landing on Saipan just a week after the first troops waded ashore.

The P-47's went into action immediately. In addition to ground attacks, the group flew strafing missions against enemy airfields and patrolled above the U.S. bases to prevent return visits by the enemy. During the invasions of Tinian and Guam, the 318th continued to support ground troops but eventually the activities of the group were limited by range and it took a number of longer range P-38's on strength.

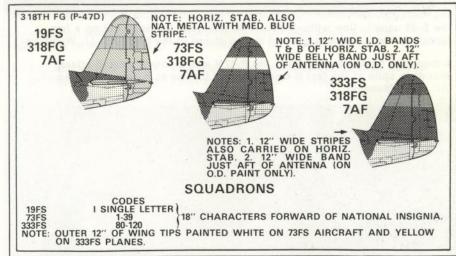
The people back at Republic realized the limitations of their big fighter and already had a solution well along. A new version of the Thunderbolt, the P-47N, began to roll off the lines in late 1944. This ship had the range needed for the Pacific but it was an even bigger brute than its older brothers. The USAAF had plans to establish a fighter force on bases nearer the Japanese home islands and toward this end incorporated the new version of the Jug in these plans. In April 1945, the 318th re-equipped with the P-47N and moved to le Shima, an island three miles off the coast of Okinawa and only 325 from Japan.

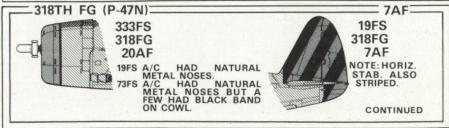
The group set to work very soon after taking up its new quarters. Bombing and strafing missions against targets in southern Japan and over China were common. During May and early June, the pilots ran into stiff Japanese air opposition on almost every mission and ran up an impressive score. By 10 June, the group had claimed 108 victories since it first began operations from le Shima.

On 25 May, Richard Anderson and Donald Kennedy of the 318th were flying their P-47N's over a Japanese base on Amani O Shima when they



"Little Paduzi" of the 318th Fighter Group. (USAF)







The B-29 usually flew without escort on missions to Japan but on a few occasions the P-47N was used to sweep ahead of the bombers. (J. Weathers)

Armed with bombs and rockets, the P-47N was a potent ground attack aircraft in spite of the fact it was designed for use as a long range escort. (Air Force Museum)

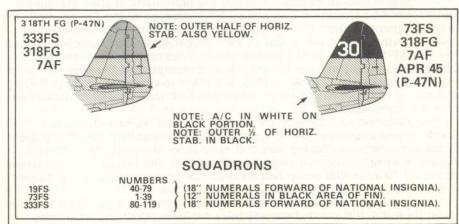


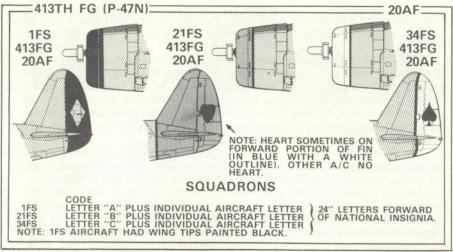
spotted 30 aircraft bearing down on them. The two American pilots climbed toward the Zekes and began to fire as soon as they were in position. The fight lasted only some four minutes but by the time it had ended, Anderson had made ace with five enemy planes on this one mission and his partner had downed three. A second 318th pilot, John E. Vogt, duplicated Anderson's feat of making ace on a single mission just three days later.

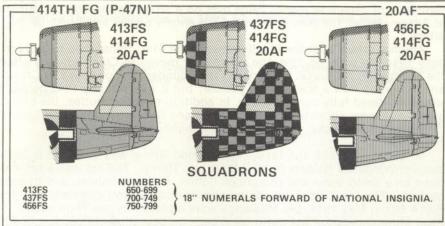
The Twentieth Air Force was assigned the task of prosecuting the strategic war against Japan with the new B-29. Three units equipped with the P-47N were assigned to the air force. The first of these, the 413th, joined the 318th on le Shima in May 1945. A third group, the 507th, arrived on the island in late June. The last group to arrive in the Pacific was the 414th and it was based on Iwo Jima. Though originally intended for escort, the new unit seldom had the chance to fly this type of mission. The reputation of the Thunderbolt as a ground attack machine led to its use in this role more frequently. Airfields, railroad bridges, ordnance dumps, factories, shipping and any other targets that happened along felt the presence of the marauding Jugs.

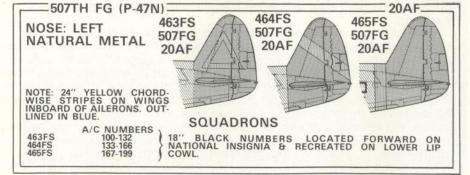
On 8 August, the 413th and 507th flew their only escort mission over Japan. Approximately 400 B-29's were targeted for the steel-producing city of Yawata on the island of Kyushu. The 151 P-47's of the two groups swept in ahead of the bombers to clear the skies of enemy interceptors. The Japanese put up a maximum effort on this day with 60 fighters rising to meet the Americans. A fierce battle resulted in the downing of thirteen enemy planes for the loss of four Thunderbolts.

Five days later the 507th flew another mission, a fighter sweep over Korea. Again, the Japanese rose to fight and the group destroyed twenty for the loss of one P-47. Lt. Oscar F. Perdomo was one of the pilots on the mission and he sent four Oscars and a Willow down in flames. Not only did this make Perdomo the last American pilot to make ace in a day, it also earned him the honor of being the last American ace of the war. The unit won the Distinguished Unit Citation for the mission. Two days later, the war in the Pacific was over.





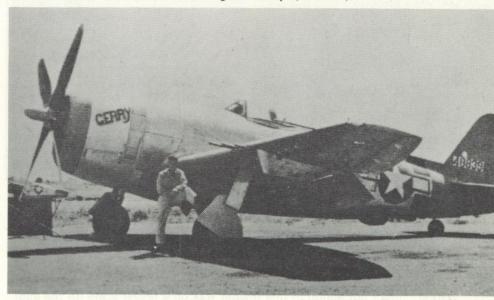






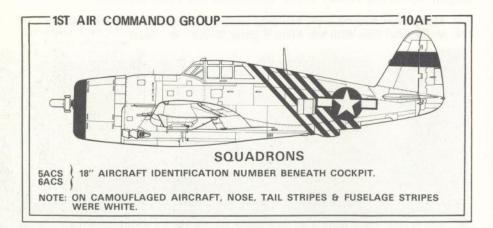
Larger internal wing tanks and large external tanks gave the P-47N the longest legs of any version of the Thunderbolt. (Air Force Museum)

E.H. McEachron flew "Gerry". The ship carried the individual aircraft number 774. McEachron flew with the 414th Fighter Group. (W. Hess)





A P-47 of the 81st Fighter Group comes in for a landing in China. (USAF)



CHINA BURMA INDIA

There was one more theater where the P-47 saw action - the China, Burma, India - but action in this theater was on a lesser scale for the Jug.

The Tenth and Fourteenth Air Forces operated in the CBI and a combined total of three full fighter groups plus two squadrons of a fourth flew the P-47.

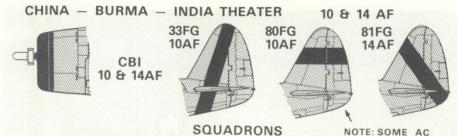
The 33rd Fighter Group served in the Mediterranean until early 1944 when it moved to India and began working up on the P-47. In April, the group moved to Shwangliu, China and was assigned to the Fourteenth Air Force. Training continued on the new fighter until September when the group returned to India (and the Tenth Air Force) for the remainder of the war. The 33rd flew dive-bombing and strafing missions in Burma in support of Allied ground troops operating in that area.

The 80th Fighter Group had been trained on the Jug in the United States. In fact it was the second unit to receive the new fighter. When it shipped out for India, however, the Thunderbolts were left behind and it entered operations flying the P-40 and the P-38. In the spring of 1944, the 80th again received P-47's and flew ground support missions in Burma. In addition, it provided air defense for the Indian terminus of the Hump route by striking at Japanese airfields and flying cover above Allied bases. The unit received the Distinguished Unit Citation for action on the 27th of March 1944. A large formation of Japanese planes came over on a strike against the oil refineries at Assam, India. The 80th intercepted the enemy planes and broke up the attack.

Another group from the Mediterranean, the 81st, transferred to India in early 1944. As with the 33rd, the group later moved to China where it joined the Fourteenth Air Force. Training on the Thunderbolt continued in China and the group flew a few combat patrols; but it was January 1945 before it was considered fully combat ready. In addition to escort duties, the 81st struck at enemy airfields and installations and flew ground support for the Chinese ground forces. These duties continued through the end of hostilities.

In late March 1944, the 1st Air Commando Group was activated in India to support Wingate's Raiders in their drive into Burma. The 1st was a total air force on a small scale and comprised fighter, bomber, liaison, and transport sections. The two fighter squadrons attached to the unit originally flew the P-51A but in May 1944, the Mustangs were replaced by the Thunderbolt. After a training period the outfit went back on operations in support of Allied ground troops until May 1945 when it again converted to later model Mustangs.

In the Pacific, over 40 aces of the Fifth Air Force did the bulk of their flying in outfits equipped with the Jug (35th and 348th). This list was headed by Neel Kearby's 22 aerial victories. In addition, a number of other aces of the 8th and 49th Fighter Groups flew the plane during at least a part of their combat tour. In the Seventh and Twentieth Air Forces, the 318th had all the aces with the exception of Oscar Perdomo of the 507th. Judge E. Wolfe was the top gun of the group with nine Japanese planes to his credit. As in Europe, the relative worth of the P-47 was not measured exclusively by the number of enemy planes downed in combat. The success of the Allied advance was, in large part, a direct result of support from the air. In this often difficult and always dangerous job, the Thunderbolt was outstanding in the war against Japan.



SQUADRONS

NOTE: SOME AC

33FG (10AF) 58FS 59FS 60FS WITH NO STRIPE.

80FG (10AF) 88FS 89FS 90FS

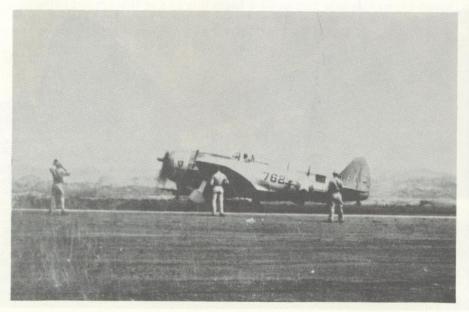
81FG (14AF) 91FS 92FS 93FS

NOTE: DETAILS OF MARKINGS IN CBI THEATER ARE SKETCHY, THE ONES SHOWN ARE REPRESENTATIVE EXAMPLES RATHER THAN DEFINITE.

Ground crewmen fitting rocket launch tubes to aircraft 62 [serial number 42-76012]. The squadron emblem on the cowl marks this ship as belonging to the 65th Fighter Squadron, 57th Fighter Group.

A flight of Thunderbolts from the 345th FS, 350th FG over the Alps.

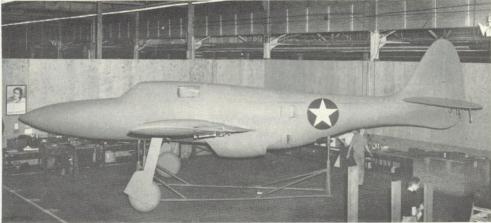
P-47 N of the 456th Fighter Squadron, 414th Fighter Group ready for take-off. The cowl and tail were yellow and the serial number for the plane was 44-88389.

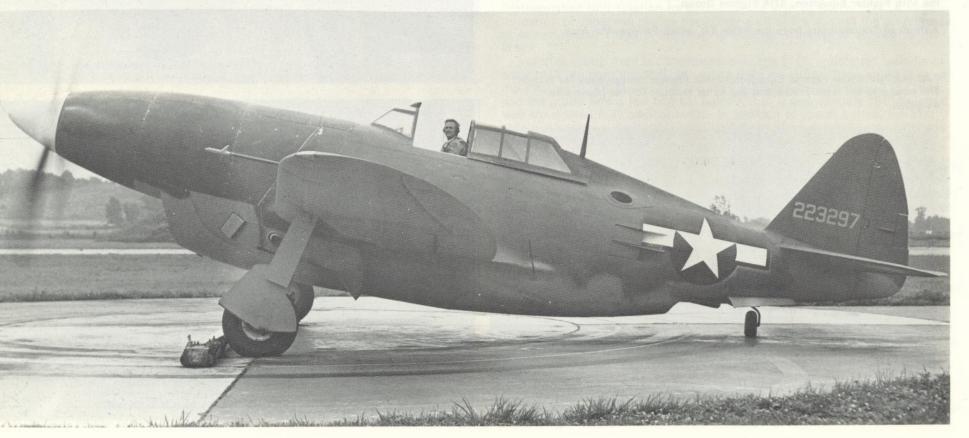












EPILOG

To close the story of the wartime use of the P-47 it is necessary to consider some rather impressive statistics. Between March 1943 and August 1945, the Thunderbolt flew a total of 545,575 sorties in the various theaters where it saw service. In the course of these, 134,899,415 rounds of ammunition were expended, 59,567 rockets launched and 132,482 tons of bombs dropped. Combat flying time of 1,352,810 hours resulted in the consumption of 204,504,000 gallons of fuel.

In terms of damage inflicted, the P-47 was credited with the destruction of over 7,000 enemy planes of which 3,752 were aerial victories. In the ground attack role, 9,000 locomotives, 86,000 pieces of rolling stock, 68,000 motor transports, 6,000 armored cars and tanks, and 60,000 horse drawn vehicles were destroyed by the Jug in Europe. Two-thirds of the 15,683 Thunderbolts built in the three plants tooled up for the fighter were sent to units in combat theaters and over 6,000 of these were still operational when hostilities ceased in August 1945.

The Thunderbolt had its roots in the minds of two expatriate Russians but it came of age in a conflagration stretching across the entire face of the globe. In its final form, it was the biggest and heaviest single engine fighter ever built and it was produced in greater numbers than any other American fighter. Originally conceived as a high altitude fighter of limited range, the P-47 exhibited the versatility of all true thoroughbreds and performed as a fighter-bomber, ground attack aircraft, and long range escort. Pilots, even ones who preferred other planes, respected the ability of the Jug to absorb substantial battle damage and still make it home and appreciated the heavy hitting power of the eight machine guns in the wings. Disliked by a few, loved by many, and respected by all, Republic P-47 blazed a never to be forgotten path across the skies above Europe, the Mediterranean, the Pacific and the Asian Continent.

(Above Far Left) The fastest version of the Thunderbolt was the XP-47J. This ship achieved a speed of over 500 mph in level flight but again, it was too late to see production. (Republic Aviation Division)

(Above Left) The XP-69, seen here in 3/4 scale mockup form, never materialized. The plane would have been a monster with a projected weight of 26,164 pounds. (Republic Aviation Division)

(Left) The XP-47H was powered by a 2,500 hp Chrysler engine. Two of these ships were built but it came too late to ever make production feasible. (Republic Aviation Division)



The first XP-72 was designed around the Wasp Major engine and may well have been the fastest of all American Fighters. Unfortunately by the time the ship was built, the need was for long range escort fighters and the XP-72 never entered production. (Republic Aviation Division)

The second XP-72 was equipped with an Aero Products dual-rotation prop. The ship could climb from sea level to 15,000 feet in three and one half minutes. (Republic Aviation Division)

