27th AIR DEPOT GROUP

MISSION

LINEAGE
27th Air Depot Group activated Jan 1942

STATIONS
Brookley Field, AL
El Savador, Philippines

ASSIGNMENTS

COMMANDERS
LTC Herbert A. Maloney, Aug 1942-Nov 1944
LTC Warren G. Nichols, #1945

HONORS
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

Azure, on a mound in base a peacock amidst wheat, in the beak an ear of wheat. The shield is in the colors of the Air Corps. The peacock was anciently identified with Indra, the Hindu mythological god of the thousand eyes, of heaven, of thunder and lightning, also of Durga, "Giver of Victory in Battle." It was believed by the ancient races that the peacock was a destroyer of serpents. These attributed traits are symbolic of the characteristics of our Organization. The wheat is symbolic of Plenty, being the basis of the "Staff of Life" and its plentitude the representation of our maintenance. (Approved, 5 Jul 1942)

MOTTO
GLORIA SUMUS SERVIRE.

NICKNAME

OPERATIONS
The 27th Air Depot Group was activated at Mobile Air Depot, Brookley Field, Alabama, in January of 1942. The Group at that time consisted of the Headquarters and Headquarters Squadron, 27th Depot Repair Squadron and 27th Depot Supply Squadron. The actual assignment of personnel did not take place until the 5th of February 1942, when a cadre of enlisted men was transferred from the Mobile Air Depot. These men were few, but their trades were highly specialized. Among them were machinists, airplane mechanics, engine specialists, instrument specialists, sheet metal workers and technicians in the other allied specialties necessary to fulfill the function of an Air Depot Group. The men comprised only ten percent of the total authorized strength. They were qualified in two ways. Some were graduates of Army Air Force technical training schools, but the majority had three to ten years' experience in either civilian or Army aircraft work. The remaining ninety per cent of the organization came in slowly during the following two months. Some of them had technical training in specialized skills, but in the main they were just a bunch of raw recruits. Basically, the time spent in Mobile was consumed in training for overseas duty, although some of the men were placed in the engineering and supply sections of the Mobile Air Depot.

On the 18th August 1942, the Group was alerted for overseas shipment, and preceded to Camp Stoneman, Pittsburg, California, on the following day, arriving at that station on the 24th of the

month. While at Camp Stoneman, awaiting embarkation orders, the last-minute transfer of personnel was affected, bringing all units of the Group to their full strength, a total of 43 officers and 751 enlisted men. The Group of that time was consisted of the following units.

Headquarters and Headquarters Squadron
27th Depot Repair Squadron
27th Depot Supply Squadron
Medical Section
Ordinance Section
Finance Section

The 27th Air Depot Group boarded the ship which brought them overseas on the night of September 1, 1942, and set sail the following day from San Francisco. The Equator was crossed on the 11th of September with appropriate ceremonies and initiation of the majority of the personnel. On the 21st of September, the Group had its first encounter with actual warfare, for on that day the ship anchored in Noumea Harbor, New Caledonia. Noumea was a wall of flame, having been bombed a few hours previously by the Japanese Air Force.

Inasmuch as another raid was imminent, the ship was ordered to proceed to Brisbane, Australia, where it docked three days later. In Australia, the Group set up temporary headquarters at Amberley Field, Ipswich. While at that base the Group underwent further training in addition to unloading and assorting their equipment in preparation for their departure to a permanent station in New Guinea. When it became known that it would be necessary for the 27th Air Depot Group to build its own warehouses, hangars and campsites at Port Moresby, some additional heavy equipment was secured for that purpose. The existing Tables of Organizational Equipment at that time were not only inadequate in the amount and types of equipment listed but were also incomplete. A typical example is shown in that each unit of the Group was authorized only one carpenter kit. With that the units were supposed to clear their areas and construct tents and necessary buildings for the protection of personnel and equipment. Overcoming these, and other obstacles, started the spirit of the 27th Air Depot Group, which had been evidenced in its accomplishments during the Papuan and New Guinea campaigns.

On the morning of December 13, 1942, the Group arrived at Port Moresby after a six-day journey from Brisbane, Australia. Australian-manned lorries took the personnel from the ship to their new home, a valley located between Ward Drome and Jackson Strip, which they appropriately named "Death Valley" From the top of the hills to the rain-swept muddy floor of the valley every inch of ground was covered with mosquito-laden, waste high Kunai grass, and a multitude of trees. The men immediately set up their pup tents and dispersed them throughout the immediate area. At this time Japanese troops were less than twenty miles away in the foot hills of the Owen Stanley Mountains. Australian troops were valiantly endeavoring to push them back over the mountains. "There was no rest that day or for many days thereafter. Supplies and equipment had to be brought from the Port Moresby docks. A water supply had to be found. The extreme heat enervated even the strongest men. That evening the Group experienced its first in a series of enemy air raids, which continued in varying intensity during the ensuing eight months. Morale hit

a new low, and the start of the combat phase of the organization's history commenced. Within one week after their arrival the men set up temporary shops made of native timber and canvas. Two weeks later they sent the first P-39 they repaired into the sky against the Nips over Port Moresby.

Production in the United States had not reached the point where aircraft could be spared for this theatre of war. Because of that, the men rebuilt airplanes so badly shot up they would ordinarily be considered only fit for salvage. They cannibalized the ones they could not rebuild and used the pieces to make one or two planes that could be made to fly. Protecting the planes undergoing repair was a gigantic task. Whole mountains were moved to secure earth with which to construct earthen revetments. The men that handled the bulldozers and graders were often caught flat footed during enemy air raids because the noise of the machinery drowned out the inadequate air raid warnings. About the fifteenth of January 1943, construction of roads, warehouses, hangars and camp sites was started. To accomplish this task, it was necessary to draw laborers from the ranks of the engineering specialists and supply personnel. Clerks overnight became construction engineers. Rank was forgotten. It was a common sight to see a buck private bossing a group of sergeants. The reduction of personnel engaged in engineering and supply sections of the Depot did not cause the Group to fall behind in its work. By working around the clock, the engineering section kept abreast of the ever-increasing number of planes that were brought in for combat overhaul, and the supply section kept the supplies going forward to combat groups. It might well be added at this point that at night it was necessary to post guards to safeguard the equipment and supplies which, as one man put it, "were scattered all over hell." Not having a guard outfit assigned to the Group, it was necessary for the men who worked all day long in the shops and dispersal areas to take turns standing guard all night.

The 27th Air Depot Group played an important part in the triumph of the Battle of the Bismarck Sea, in which a Japanese convoy of 22 ships, carrying an entire division with supplies, was virtually destroyed by land-based aircraft. The battle took place March 1 thru 4, 1943. During those four days the men worked around the clock repairing badly-shot-up planes and kept sending them back over the Bismarck Sea to drop many more tons of bombs on the enemy's ships. For their untiring efforts and devotion to duty, the Group was commended by Brigadier General Paul Wurtsmith, Commanding General of the Fifth Fighter Command, and by Major General Ennis C. Whitehead, Deputy Commander of the Fifth Air Force. In addition to repairing shot-up planes, the Depot undertook the task of making numerous modifications necessary to the perfect performance of planes while in combat. A striking example of the efficiency of the Group was displayed in August of 1943, when all P-40N in New Guinea were grounded because of defective landing gear. The engineering personnel once again worked around the clock and completed the necessary modifications in the record time of four days. Later it affected the same modification on P-40's which were based in northern Australia.

September 5, 1943, marked a day that will long be remembered by personnel of the Group, for on that day planes that had been overhauled by the Depot took part in the successful operations against the enemy's strongholds at Nadzab and Salamua. Acquiring those two bases put an end to the numerous air raids which, to a certain degree, had been hampering the Depot's activities.

With the Japanese threat removed, the Depot shifted into high gear. Planes were given complete overhaul by the score. Modifications and experimental projects were carried out successfully. Supplies were shipped forward in greatly increased quantities. New planes, replacing the war weary P-39's and P-40's, were erected in an additional hangar that was built especially for that purpose. At last the men were able to settle down to a nine-hour day, and to a degree enjoy the few recreational activities that New Guinea had to offer. Baseball, basketball and volleyball teams were organized. To supplement their bully beef rations, the men hunted in the surrounding jungle and brought in deer, wild pigs and wallabys.

While the Group was busy fulfilling its work of supply and maintenance of Lt. Gen. George C. Kenney's Fifth Air Force, General MacArthur's ground forces were outsmarting the Japanese and gaining new bases. The occupation of Nadzab, Lae, Salamua, Tsili Tsili, and Saidor was followed by new landings at Finschafen, Hollandia, Wakde, Biak, Noemfoor and Morotai. Because of the lengthened lines of supply, it became necessary for the Group to once again pack its equipment and move forward to its present base, where it is operating with the 81st Air Depot Group. Jointly, they comprise the largest and most efficient Air Depot of the Far East Air Service Command. The movement of the Group took place on August 20, 1944, when its Group Headquarters was officially closed at Port Moresby, nearly two years after it first set up operations in New Guinea.

The saw mill at Laloki was an outstanding project, sponsored by the 27th Air Depot Group. Many seemingly insurmountable obstacles, not the least of which were adverse living conditions, were overcome by a crew of 18 enlisted men and two officers. The initial output of the Thick and Thin Lumber Company was 4200 board feet. A subsidiary branch of this company was the Snafu Lumber Company, whose prime function was the stacking and distribution of Lumber. The saw mill not only supplied the necessary lumber for the construction of the Depot, but also supplied lumber to many other units, including hospitals and the American Red Cross. Since setting up the original Thick and Thin Lumber Company, the crew has set up many other saw mills in New Guinea and New Britain.

The Engineering Office personnel are responsible for modification and repair of all aircraft received by the Depot, assignment of engineering personnel, and daily reports on the status of all aircraft being overhauled, modified and repaired by the Depot. In addition, it is their responsibility to iron out the bugs in new aircraft, and to design special tools used in the maintenance of aircraft. Notable contributions by this department have been the method they devised to transport aircraft from ships to airstrips, modification of fuel systems and designing of belly tanks for fighter aircraft. In the latter much credit is due 1st Lt. Archie M. Catrost, assistant engineering officer. He designed a belly tank for P-47 which lengthened their range at a time when every extra minute in the air was priceless. For his role in that project he was awarded the Legion of Merit. Another engineering officer who has contributed to the success of the Engineering Section is 1st Lt. Bronislaw J. Swiatek, whose specialty is ironing out bugs to increase the performance of planes in combat.

DRAFTING AND PHOTO LAB. The primary duty of the Drafting Department is preparing working plans and detailed drawings, but the staff has coped with all types of problems— from the formulation of plans for the largest depot in the Far East Air Service Command to the artwork and layout of New Guinea Diary. Upon the drawing boards of this department originated the plans for many of the Depot's engineering projects and the many miscellaneous tasks required by a highly-specialized organization.

Another versatile section of the Depot is the Photo Section. Photographically recording engineering projects is an exacting job that can only be accomplished by skilled photographers and laboratory technicians. The photos throughout this book are ample proof of the high standard workmanship that is turned out by our photo boys.

Everything around an air base is important, but there is nothing more important than the Engineering Section of a Depot Group operating in a combat area. With the Japanese and the Allies battling for air supremacy in the skies above Port Moresby every plane was worth more than its weight in gold. The boys on the line knew that every plane out of action was equal to a plane destroyed. With that in mind they sweated and toiled around the clock so that our planes could go back into the air a lot faster than was humanly possible. That was a necessity and that is what they did.

Without an engine a plane is little more than a glider. Speed, altitude, performance and the amount of weight sustained in flight depend upon the horsepower and number of engines installed. To safeguard the first P-47's sent to this theatre, water injection systems were installed by our engine men. The purpose of the injection system is to provide a means of safeguarding the engine from detonation when it is operated at the War Emergency Power Rating.

The power plant of any airplane is more than just the engine. It is the combination of engine and propeller. The engine is the source of power for the propeller. The propeller transforms that energy into thrust by boring itself through the air and pulling the engine after it. In addition to repairing and installing propellers, personnel of our propeller shop worked out a modification on the P-70 night fighter. It was necessary for the planes to attain a greater rate of climb while in combat. Our shop solved that problem by installing B-24 paddle propellers on the P-70's in this theater.

INSTRUMENT SHOP

Probably the most envied men in the 27th Air Depot Group are the instrument specialists for they work in the only air-conditioned shop in New Guinea. Because of the ever present Port Moresby dust, which hampered the repair of aircraft instruments, these boys built the first air-conditioned shop in New Guinea. Like all other engineering departments, the instrument specialists made their own instrument repair tools, many of which are delicate and intricate in design. Through their skill and untiring efforts in repairing vital aircraft instruments, the existing shortage of aircraft instruments in the New Guinea area was lessened. Their resourcefulness has brought high praise from many sources. The average output of this department while at Port Moresby was one thousand instruments each month. The Bronze Star Medal has been awarded to Captain

Edward Martin, Instrument and Bombsight Officer, for meritorious achievement in the repair and maintenance of bombsights and aircraft instruments. The Legion of Merit has been awarded to Technical Sergeant William Smith for the many improvements he has made on instrument repair tools of conventional factory design.

Installing and removing radio equipment from combat aircraft sounds like an easy job to the average layman. Upon attempting it himself he will soon discover that it takes a good deal of skill and resourcefulness. When the Depot received its first A-20's and P-47's for erection these men worked day and night completing the necessary installations and modifications. Recently they were commended by Col Raymond E. Culbertson. The commendation read in part: These men comprise the Depot Engineering Radio Department. Through their ingenuity, resourcefulness and untiring efforts it was possible to turn out a record number of P-51D and F-6D aircraft complete with all new modifications and installations within a short time. The example set by these men will serve as an inspiration to all Officers and Enlisted Men of this Command, thus helping in no small measure to bring the struggle in which we are engaged to an early and successful conclusion."

ELECTRIC

Rewiring aircraft undergoing combat overhaul is the primary job of the boys in the electric shop. , they have shown their initiative on many occasions by making improvements on factory-made electrical units. One of their latest outstanding feats was the modification of a General Electric magneto. P-47's arriving at the Depot for erection was found to have faulty magnetos. Our experts found that the trouble was located in the breaker point assembly. Not having replacements for the faulty magnetos, they had to rely on their Yank ingenuity. The outcome was a modification using a Scintilla breaker point assembly in the General Electric magnetos. By doing so the delivery of P-47's to combat units was facilitated.

Not only have these boys rewired and modified upwards of a thousand airplanes, but on numerous occasions they went to the aid of other units that were experiencing trouble with critical electrical items. Overhauling the many electric motors found on our modern combat aircraft presented few problems to these experienced men. Not once were they faced with a task that they could not overcome. The overall initiative and ingenuity displayed by the members of the Electric Shop have earned for them the distinction of being known as the Tom Edison’s of New Guinea.

The repair, inspection, maintenance and modification of all aircraft armament used by combat groups in the New Guinea area were accomplished by the Ordnance Section of the 27th Air Depot Group. During the early days of the Papuan and New Guinea Campaigns the armament boys were handicapped by the lack of special tools. , this did not deter them in their mission. Their ingenuity and determination brought forth tools fashioned from odds and ends obtained from the scrap piles. They cannibalized wrecked aircraft for parts which otherwise could not have been replaced. During the Battle of the Bismarck Sea they worked around the clock servicing and repairing the guns of our fighter aircraft and bombers. All combat units that participated in that action commended the Ordnance Section for the willingness with which they undertook the task and for

the initiative and efficiency displayed in keeping the guns firing during that crucial battle. Since then thousands of guns have been handled by our armament crews.

The first oxygen plant to be set up in New Guinea was that of the 27th Air Depot Group. To the personnel of this department fell the task of manufacturing and supplying oxygen and carbon dioxide to all Fifth Air Force units in New Guinea. Although handicapped by a critical shortage of skilled technicians not once did this department fail to meet the ever-increasing demands of combat and service units in New Guinea. On numerous occasions, when the oxygen supply of medical units scattered throughout New Guinea became exhausted, this department went to their aid and thereby indirectly saved the lives of many American and Australian servicemen.

As the name implies, the duty of the Typewriter Repair Section is to service the hundreds of typewriters that are scattered throughout the Depot. Since it first set up operations this department has repaired over 500 typewriters. Lack of spare parts was overcome through sheer initiative and ingenuity. Tools that were not available were made by the personnel of the department.

Originally the machine shop was housed under canvas and the machinery installed on wooden platforms. Later it was moved to a modern Igloo hangar constructed on a concrete foundation. Regardless of the hardships this shop had to work under equipment arid special tools flowed unceasingly from this department. The men in this shop produced vital tools, jigs and dies, which enabled our aircraft mechanics to make repairs on airplanes. Camera and gun mounts were produced in this shop by the score. They tooled precision parts which were unattainable from the United States. Because they lacked a hydraulic press the machinists devised one of their own. At various times machine shop personnel removed broken spark plugs from engine cylinders thereby saving many man hours required in making engine changes. Never can it say that the machine shop supplied too little, too late. On the contrary, it can be stated that the difficult was accomplished immediately, though the impossible took a little longer.

The Plating Department, like all other departments in the Engineering Section, built its own equipment from salvaged materials. Due to the climatic conditions that prevail in New Guinea many aircraft parts require plating to prevent them from rusting. While at Port Moresby this department handled the plating requirements of other Air Force units in addition to its regular Depot work.

Because of the necessity of heat treating aircraft structural parts, the Heat Treating Department's first project was the construction of a cyanide furnace, salt baths, and a heating oven capable of a range of 1700 degrees. In addition to aircraft structural parts, this department heat treated all dies, taps and special tools manufactured in the machine shop. It was not until very recently that a heavy duty heat-treating furnace was added to their equipment.

RADIATOR AND MAGNAFLUX

All aircraft parts that undergo stresses while in flight are magnafluxed in this department for possible cracks. Coolant radiators and regulators taken from airplanes undergoing major repairs

are also cleaned and tested in this department. Records show that a minimum of 350 regulators have been handled each month since this department started functioning.

BLACKSMITH

This department handles the foundry work required by the Depot. An example of the initiative shown by the personnel is the drop hammer which they designed and constructed. One of their major projects was casting P-40N oil inlets at a time when they could not be supplied to us by the manufacturer. In addition to the P-40N oil inlets they sand casted many other vital parts which could not be produced in the Machine Shop. The tablet on the memorial in Port Moresby is a fitting example of the versatility of the personnel in this shop.

WELDING

Because flints for their welding torches could not be obtained this department constructed an electric igniter of their own design, which was submitted to and approved by the Air Service Command at Patterson Field, Ohio. A gigantic task performed by this department, in addition to their regular assigned duties, was the welding of the many washing machines which were produced by 27th Air Depot Group. The intricate and exact work performed by these men aided greatly keeping our planes in the air.

SHEET METAL

The first department of the 27th Air Depot Group to start functioning was the Sheet Metal Department. Immediately upon arrival in Australia they began sheet metal repair work on American and Australian aircraft. While at Port Moresby this department patched up many bombers and transports, making it possible for them to be flown to Australia for combat overhaul. The efficiency and initiative shown by the personnel of this department brought praise from many sources. Working with the Welding Department, they made it possible to fly a wing to a disabled C-47 which was downed behind enemy lines.

HYDRAULICS

Probably the most abused parts of planes that were overhauled by the Depot during the Papuan and New Guinea campaigns were those of the hydraulic system. It was a common thing to pull a landing gear strut apart and find it filled with Prestone engine oil and in some cases even water. Each strut had its own story to tell. It was not the fault of the crew chiefs. It was due to the shortage of supplies that existed in this theater of war at that time. The many actuating cylinders found in our modern aircraft are built to operate under certain conditions. It depends if a cylinder is packed with rubber, neoprene, or some other composition, whether a mineral or vegetable base hydraulic fluid is to be used. The first P-47's brought into this theater used a vegetable base fluid for the braking system. Shortly after it was decided that a mineral base fluid was to be used. This change made it necessary to repack all master brake cylinders with neoprene packings, and the changing of the brake fluid lines. The men in the Hydraulic Shop accomplished the task though they had to make their own tools to do so. The way blow torches were applied to the struts would turn the hair of a factory representative grey. Yet it was a case of using the blow torches or not making the modification. The modifications were made, and not one complaint came back to the Depot saying that the landing gears were unsatisfactory. All in all, the story of

the Hydraulic Shop personnel is the same as that of all the other engineering shops. They had no tools, but they accomplished their mission.

DOPE & FABRIC

For their expert workmanship and willingness to work around the clock during the Battle of the Bismarck Sea, these boys were commended by Headquarters of the Fifth Air Force. As fast as the planes returned to Ward Drome, the dope and fabric boys set to work mending and repairing the many fabric control surfaces of our planes that had been damaged by enemy fire. Because of their skill many bombers and fighter aircraft, which otherwise would have been grounded indefinitely, were able to fly out over the Bismarck Sea once again and drop many more tons of bombs on the enemy's convoy.

CARBURETORS

Starting with two men, this shop expanded more than any other department in the Engineering Section. At present the personnel roster has the names of twenty-four men on it. While at Port Moresby they trained many men from other units, including personnel of the RAAF, in carburetor repair. A modification made by them was approved by the Bendix Stromberg Company, and is now in use in all theaters of war. Lacking proper test stands they built their own automatic mixture control testing stand in addition to a power enrichment valve setting jig.

CARPENTERS

Building all the desks, chairs, filing cabinets and numerous other kinds of furniture was one of the tasks performed by our carpenters. They designed and constructed special stands for aircraft engines which are shipped by plane to forward areas. Due to the fact that engines had to be dispersed individually throughout the engine dispersal area it was necessary for our carpenters to make individual weatherproof shelters. In addition, they helped in the construction shops and other buildings. Loading ramps for heavy artillery were constructed during the Lae campaign, which helped to get the guns to points of action where they would do the most good.

ROAD BUILDERS

Moving whole mountains to construct revetments and roads was one of the many, accomplishments performed by our heavy duty operators. Clearing areas of trees, Kunai grass, and filling in swamps aided laterally in the completion of the Depot in record time. While operating their heavy equipment it was not possible for them to hear the air raid warnings. Consequently, they were often caught in the open while the enemy raiders were overhead. Yet they went on working around the clock, regardless of pouring rain, mud and enemy action.

HEAVY EQUIPMENT

Removing wrecked aircraft from Jackson Strip and Ward Drome and placing aircraft guns into position were just a couple of the duties that broke the monotony of loading and unloading boats. When something heavy had to be moved, these were the boys who did it. Driving 40 foot trailers over the winding narrow roads of Port Moresby was no simple task but to them it was just another easy job. Getting to supplies in dispersal areas was not an easy job in view of the numerous trees that always seemed to be in the wrong places, and the deep mud that would bog

down their vehicles. Aside from the duties of moving heavy equipment they also kept the numerous special vehicles such as tugs, Cletracs and tractors, in running condition twenty-four hours a day.

CONSTRUCTION

The construction gang is credited with building the finest mess hall in New Guinea in addition to a theater, dispensary, orderly rooms, day rooms, Special Service building and the many other buildings that are necessary to a well-functioning organization. The most modern chapel to be built in New Guinea was constructed by these men. They might well be called the "Original Builders of New Guinea."

WATCHDOG of the 27th Air Depot Group's operations is the Inspection Department. To this department fall the duties of checking and approving tools, supplies and the work of the mechanics repairing aircraft. The department assumes the responsibility for the satisfactory performance of planes overhauled and erected by the Depot. The Inspection Department is comprised of three sections, Supply, Technical, and Aircraft inspection.

The principle duty of the Supply Section is to check the condition of incoming equipment and aircraft parts, and to determine their serviceability. It then classifies the equipment and parts as suitable for use, damaged and unserviceable, reparable, or obsolete.

Technical inspection is general supervisor over all Depot Inspection activities. It prescribes methods of inspection, provides safety precautions, and handles distribution and filing of all technical publications and blue-prints.

The Aircraft Inspection section carries out its work on aircraft being overhauled, erected or modified. This section makes a complete check on all aircraft received by the Depot for repair. It inspects the work of the mechanics to ascertain that parts are installed properly. It also conducts engine checks and all important flight test operations. Of the many successful innovations made on combat planes by the Engineering Section several are credited to the Inspection Department, which determined their need and advocated their installation.

FLIGHT TEST

Despite expert ground and paper work only the test pilot can prove whether the engineering theories behind airplane design are right or wrong; whether an airplane will or will not fly successfully. One of the most difficult assignments for test pilots is flying radically different plane types during a single day's routine. In this theater of war their assignments are particularly more hazardous and exacting.

Instead of testing new airplanes our pilots have had to test planes that had undergone combat overhaul; planes that were patched up and fitted with parts salvaged from other aircraft. Our pilots are truly pilots' pilots, for they fly the planes and guarantee their worthiness before delivering them to combat units.

WASHING MACHINE PROJECT

Scrub typhus and numerous skin diseases presented a serious problem in the New Guinea sector of operations. The task of combating it was that of the Medical Corps. The 27th Air Depot Group played an important role in the prevention of those diseases by enabling many thousands of troops to wear clean clothes. Because it was impossible for mobile laundry units of the Quartermaster Corps to operate in sectors where roads did not exist, the Army turned the problem over to the Depot at Port Moresby. The Depot solved the problem by designing and manufacturing washing machines made from gasoline drums, steel airstrip mats, and miscellaneous lengths of pipe and angle iron. Unique in design, the famous THREE BARREL WASHING MACHINE proved to be, not only a help in combating disease, but also as a time saver. The washing machine consists of three perforated gas or oil barrels rotating on a shaft placed within stationary galvanized iron outer drums. Universal joints between drums align shafts and ease bearing strain. The shaft is driven through a truck transmission by a small gasoline engine. The drums, shaft and transmission are mounted on a wooden base Two gasoline drums welded together comprise the boiler unit. They are set on a four foot stand with grating one foot off the ground. The rear and sides of the stand, when, walled up with brick or native stone, form a satisfactory furnace. The Depot manufactured and supplied these washing machines to scattered units of all the armed services in the Southwest Pacific thereby aiding in the prevention of disease.

When our land forces secured the airstrip at Dobadura they were handicapped by the lack of proper transportation facilities. Airborne supplies had to be unloaded and transported for the most part by native carriers and a few jeeps. Due to the fact that roads did not exist over the Owen Stanley Mountains it was impossible to drive trucks from Port Moresby to Dobadura. The only hope of alleviating the situation was shipping an Army 6x6 truck by air. That task was accomplished by the 2479 Quartermaster Truck Company, which at that time was a unit of the 27th Air Depot Group. In order to ship the truck by air it was necessary to cut the truck in half and reweld it when it reached Dobadura. The top of the cab had to be removed as1 well as the left front fender and both running boards. The gasoline tank was disconnected from the main fuel line and removed along with the spare tire rack. The body assembly was removed in one operation, but in order to load it on the plane it was necessary to disassemble it. The rear brake fluid lines were cut at the frame splice, and valves were installed to shut off the flow of fluid. The electrical wiring was cut at the same point and a cannon plug was installed. The vehicle was then loaded in two sections on a C-47, unloaded and reassembled by a crew of nine men in one hour and thirty minutes. Named the FLYING JOE RON, this truck was the forerunner of the present United States Army Airborne Trucks.

A-20 AND P-47 ERECTION PROJECT

The first A-20's and P-47's to be erected in New Guinea were handled by the Depot at Port Moresby. Although few difficulties were experienced in the actual erection of the planes numerous difficulties were encountered in transporting them from the American docks to the hangar that was erected for this project at the end of Jackson Strip. The planes had to be hauled seven miles over rough and narrow mountainous roads. The accomplishment of this feat was only possible through the teamwork of all the men concerned in this project. Two P-47 jigs were

made and mounted on trailers. The planes were then made fast to the trailers by means of cables and turnbuckles. A special A-20 jig was mounted on a forty foot trailer. The jig was so designed that the total weight of the plane was equally distributed between the two mid-section supports and the flat part of the fuselage. In order to lift the P-47's on to the trailers it was necessary to add a seven foot extension to the boom of a C2 wrecker. The extra height of the boom made it possible to lift the planes and back the trailers underneath them. In preparing the planes for transportation from the docks to the hangar it was necessary to remove the plywood from the wheel wells. The belly tanks were cushion-dropped, and the collars had to be removed from the landing gear struts. After hanging a 100 pound weight at the tail lift point, the planes were hoisted, and the landing gears were retracted. The trailers were then backed under the planes, and in turn were hauled away over the winding narrow Moresby road. The men engaged in this project were commended by Major General Walter H. Frank, Commanding General of the Air Service Command. Personnel engaged in the erection of the planes were commended by Col. Ralph Brownfield, Commanding Officer of the Fifth Air Force Service Command, in a letter stating that the planes erected by the Depot were a direct contribution to the success of the Cape Gloucester campaign.

ENGINEERING INGENUITY

Air transport of cargo and personnel by troop carrier units has been an important element in combat areas, particularly in New Guinea where there are few roads. Every C-47 is worth more than its weight in gold. When one was damaged at Bena Bena, which at that time was surrounded by Japanese troops, a call was sent to the Depot at Port Moresby to forward a complete wing to that airstrip. Because roads did not exist, and because the Japs controlled the air and sea around Bena Bena, it was not possible to ship the wing by either truck or boat. The only alternative left was to ship it by plane. Thus, the problem of flying a complete wing section over the Owen Stanley Mountains was left to the Engineering Section of the 27th Air Depot Group. Finding that the wing was too large to fit inside the fuselage of a C-47, our engineers decided to sling the wing under the fuselage. This brought protests from factory representatives, who claimed that the plane would not fly with the wing attached to it, and if it did get airborne, the attached wing would be ripped away from the fuselage of the plane. Our engineers listened politely with half an ear and went about slinging the wing beneath the C-47. Although several difficulties were encountered, the wing was successfully attached to the fuselage of the C-47, and the plane was flown over the hump to Bena Bena, thereby making it possible for another one of the all-important C-47's to continue its mission of hauling men and supplies to points where they were needed the most.

MOTOR MAINTENANCE

The men of this section were originally members of the 1717 Ordnance Motor Maintenance Company. When the Company was disbanded in April of 1944 the men were reassigned to the Ordnance Section of Headquarters and Headquarters Squadron. Their experience in motor maintenance and repair while stationed in combat areas of New Guinea has done much in making this section one of the foremost motor maintenance units in the Southwest Pacific area. The men lost no time in setting up their shops at Port Moresby, and within a few days after their arrival began servicing the trucks, jeeps and special vehicles of the 27th Air Depot Group. Having

to rely chiefly upon their ingenuity, because of the lack of spare parts, they kept many vehicles in perfect running order which otherwise would have been relegated to the scrap pile.

RANGE AND SAFETY

In July of 1943, the P-47 appeared in this theater for the first time and began to replace the war torn P-39's and P-40's. This plane did not have sufficient range for operations in this theater where fighter planes have to go long distances to find the enemy and knock him out of the sky. Longer range could only be obtained by increasing the fuel capacity, thus presenting a major problem to the Engineering Section. By installing an improvised belly tank and mounting the same on the plane with suspension brackets, modifying the fuel system, and rewiring the electrical system, this flaw was corrected. A twenty-four hour schedule was introduced to make possible the manufacturing of the tanks and modification of the aircraft to meet a deadline set by the Fifth Air Force. Within a short time, enough tanks were made, and planes modified to put three fighter squadrons in the air to carry out long range missions to provide cover for bombers and transports. Another attempt to give the plane additional range proved unsuccessful. A forty-two gallon Xmas Tree tank was installed just to the rear of the cockpit and increased flying time by forty minutes. Upon the suggestion of higher headquarters, a test was made to determine the practicability, vulnerability and safety of the tank. A war weary P-47 was modified and fitted with the Xmas Tree tank, ran up to fifty inches of mercury. A second plane was positioned a thousand feet from the plane, and its guns sighted to hit the tank approximately two inches below the center. After a two second burst the test plane became a flaming pyre. By making that test the Depot proved the tank to be impracticable.

DEPOT SUPPLY A STRONG right arm of the 27th Air Depot Group is the Depot Supply Section. This section is delegated with the responsibility of furnishing Air Force units with supplies and equipment necessary to "Keep 'em flying."

First project accomplished by this section after its activation was the requisitioning and assembling of organizational equipment. That was followed by the movement of the Group's equipment and supplies to the port of embarkation. The many details of that phase were borne by those few experienced supply personnel who, in addition, had the responsibility of training newly-assigned men in supply operations. Carrying out that project successfully in a short period of time necessitated personnel working long tiresome hours. At the port of embarkation additional items were secured bringing the Table of Organization and Equipment to authorized allowances, which at that time were inadequate.

While in Australia approximately fifty per cent of the Supply Section personnel were placed on detached service at the Depot in Brisbane, where they assisted personnel of the 81st Air Depot Group and in turn were initiated into the details of overseas supply.

Upon arrival at Port Moresby part of the personnel were assigned to construction details and clearing areas for dispersment of equipment. The balance of the personnel was placed on detached service with the 7th Service Squadron to aid in operating the Port Moresby Air Depot, which enjoyed the distinction of being the first supply unit of its kind to operate in a combat

zone. Bombing raids were a frequent occurrence, making necessary wide dispersion of supplies and installations, all of which were adequately camouflaged.

In February of 1943 personnel of the Supply Section assumed full control of the Port Moresby Air Depot and began to carry out the duties for which they were originally assigned. During the months of February and March 1943, supplies were moved from Pleasant Valley to the new warehouses which were being constructed in the 27th Air Depot Group area, commonly known as Death Valley. As the months rolled on supplies continued to arrive in vastly increased quantities, making it necessary to place many of them in areas laden with jungle growth. Moving to and removing from the ever-increasing flow of supplies from the dispersal areas proved to be a task filled with many obstacles. The ever-present New Guinea mud caused trucks, trailers, and even jeeps to bog down. Trees hampered the movement of the forty-foot trailers. Yet the Supply Section kept the supplies of General George C. Kenney's Fifth Air Force moving. Requisitioning of supplies presented a serious problem as supplies had to be drawn from numerous sources, including the mainland of Australia. , in a short time that problem was alleviated, and the wheels of supply were put in motion, full steam ahead. Never did the Supply Section fall behind in its work.

SHIPPING The shipping section of the Group is made up of the men who load the planes and boats with vital air corps supplies destined for combat organizations. They handle tens of thousands of different items of equipment, from the smallest nut and bolt to the wings of our giant bombers. Equipment is also crated and packed in this section to protect it from the elements and damage while in transit. During an average month this section will handle two million pounds of air freight alone

ENGINE PICKLING THE task of handling engines was a tedious job. Filling ACP's necessitated the unboxing and placing of engines on cradles for air shipment. All serviceable engines coming into the Depot for transshipment to combat groups and reparable being returned to overhaul depots had to be boxed for water shipment. Cletracs, with make shift booms and C2's, were utilized in the handling operations. Engines remaining in the dispersal area were pickled every thirty days. An average of four hundred engines were handled each month while the Group was at Port Moresby. By working long hours, the men kept the engines moving, and supplied all Fifth Air Force units in New Guinea.

MEDICS

A unit to which many members of the 27th Air Depot Group owe a vote of gratitude is the Medical Section. This section has rendered medical aid to personnel of the Group ever since it was first formed in January of 1942. During the early days at Port Moresby Group personnel were hard hit with injury, sickness and insect bites, which kept the medics going night and day. Facilities and supplies for the Medical Section were few and far between during the first six months at Port Moresby. , shortly thereafter a new dispensary was built, which also housed the dental, pharmacy and administrative departments. The low ratio of sickness within the Group is ample proof that the medics have taken every precaution to safeguard the health of all personnel in the Group.

As authorized by Executive Order No. 9075, citation in the name of the President of the United States was awarded to the 27th Air Depot Group. The citation is as follows:

The PAPUAN FORCES, UNITED STATES ARMY, SOUTHWEST PACIFIC AREA, are cited for outstanding performance of duty in action during the period July 23, 1942, to January 23, 1943. When a bold and aggressive enemy invaded Papua in strength, the combined action of ground and air units of these forces, in association with Allied units, checked the hostile advance, drove the enemy back to the seacoast, and in a series of actions against a highly organized defensive zone utterly destroyed him. Ground combat forces, operating over Roadless jungle-covered mountains and swamps, demonstrated their courage and resourcefulness in closing with an enemy who took every advantage of the nearly impassable terrain. Air forces, by repeatedly attacking the enemy ground forces and installations, by destroying his convoys attempting reinforcement and supply, and by transporting ground forces and supplies to areas for which land routes were nonexistent and sea routes slow and hazardous, made possible the success of the ground operations. Service units, operating far forward of their normal positions and at times in advance of ground combat elements, built landing fields in the jungle, established and operated supply points, and provided for the hospitalization and evacuation of the wounded and sick. The courage, spirit, and devotion to duty of all elements of the command made possible the complete victory attained.

Air Force Order of Battle
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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.

Unit yearbook. *27 Air Depot Group, New Guinea Diary Jan 1942-Dec 1944*. S. T. Leigh and Co. Sydney, Australia. 1944.