

# **ARMY AIR FORCES TECHNICAL SCHOOL AND BASIC TRAINING CENTER, GULFPORT FIELD, MS**

## **IS THIS A REAL DESIGNATION**

### **LINEAGE<sup>i</sup>**

### **STATIONS**

### **ASSIGNMENTS**

### **COMMANDERS**

### **HONORS**

#### **Service Streamers**

#### **Campaign Streamers**

#### **Armed Forces Expeditionary Streamers**

### **Decorations**

### **EMBLEM**

### **EMBLEM SIGNIFICANCE**

### **MOTTO**

### **NICKNAME**

### **OPERATIONS**

Gulfport Field, a Technical School and Basic Training Center, is one of the newest and most efficient posts of the Army Air Forces Training Command. The Technical School trains an endless stream of airplane mechanics specialized in servicing those big transport and cargo airplanes that are licking the logistics problem of this war. The Basic Training Center transforms men from raw recruits into polished, smartly drilled soldiers in a very few weeks and classifies them for specialized training. Gulfport Field is located at Gulfport, Mississippi, and is commanded by Colonel Alfred L. Jewett, who activated the command on April 18, 1942. This is a streamlined field, featuring theater-of-operations type buildings, constructed with great speed and designed for efficiency and economy.

A primary purpose of Gulfport Field is the production of airplane mechanics. Students begin school after completing basic training and, while at school, they receive a compact 19-weeks course of instruction in airplane mechanics. The course is divided into 12 phases that include airplane mechanics, tools, structures, hydraulic systems, engines, fuel systems, electrical systems, instruments, propellers, engine operation, inspection, engine change, and the Graduation Field Test. The student becomes familiar with every mechanical part of the modern American airplane. He knows the nomenclature and working detail and is equipped to handle first and second echelon repairs.

The fact that this training is accomplished in 19 short weeks is possible because of the unusually effective school set-up. Students move rapidly from one phase to another under the direction of competent instructors, both enlisted and civilian. Their courses are presented concisely and well, and assimilation of the knowledge they must learn is accomplished without delay.

After completing I I phases of the school, a student is transferred to the "Guadalcanal" Graduation Field Test Area where he lives for eight days under simulated combat conditions. Most of the tools which he has been taught to rely upon are taken from him and he must utilize his own ingenuity to repair the airplanes in this area. It is here that the student learns to make full use of his knowledge and to quickly reason his way to the solution of problems which arise in the field of combat.

Gulfport Field does not, however, limit the airplane

mechanics' training to technical things. Men receive rifle instruction on the firing range, build themselves physically in the field physical fitness program and learn to drill smartly. Men graduated from Gulfport Field are primarily technicians, but they are two-fisted technicians who can lay down their tools, pick up a rifle and fight.

Mechanics, like all men developed by the Army Air Forces Training Command, are courageous and versatile. They are equipped to meet any emergency on the fight-line. The fact that they have done their job well is one of the primary reasons why American war planes are today taking the lead in the destruction of the enemy.

These men specialize in keeping cargo airplanes flying and no matter what the pay load might be—precision instruments in order that Berlin might be bombed, airplane engines, tools, machinery, airplane parts or parachutists and infantrymen—if good maintenance will get the planes through it's up to Gulfport Field graduates to produce.

"Sustineo Alas"—"I Sustain the Wings"—is the motto of the Training Command in its technical branches. Airplane mechanics trained at Gulfport Field truly sustain the wings of America's air might. No pilot, no matter how daring or how capable he may be, can get an airplane through that is not up to par. His engines must perform efficiently. His controls must respond immediately and accurately to his every touch. Airplane mechanics such as those trained at Gulfport Field assure him of an even break.

Gulfport Field, in the first year of its actual operation, three consecutive times won the quarterly Banner for Efficiency offered to the most efficient field in its district of the Command. It has always, from the first days of its existence, turned out airplane mechanics smoothly and rapidly.

It isn't an elaborate field, but its adequate physical plant offers everything necessary to a streamlined production machine. Students learn by doing.

School buildings are centrally located and are adjacent to school hangars. School rooms are located on a single street where students progress from one building to another as they advance in training. Each day a group of students is graduated and a new group begins school. They may go into "on the

line" duty, they may be

selected, because of special aptitude and proficiency, to take advanced courses as specialists in some particular phase of aircraft maintenance; or they may be sent to factory schools for additional specialized training on cargo or transport type airplanes.

Basic Training Center No. 11 was activated at Gulfport Field on July 14, 1943. The center was in full operation by the time it was formally established. Raw recruits were being received in a steady flow from reception centers.

The Basic Training Center takes the recruits, lectures them on military customs and courtesy, on basic military principles and rules. These men are taught to drill. They become soldiers.

During his stay in the Basic Training Center, every phase of the recruit's civilian life is studied. His education, his civilian background, his aptitude for specific types of work—all are closely examined. His military classification is then determined after a study of these factors and in almost every instance the recruit's preference coincides with the scientific determination of his abilities.

Gulfport Field is located along the coastal plain of the Gulf of Mexico. Here, beneath the semi-tropical sun of one of the nation's most famous resort areas, students and permanent party men alike divide their time with duty, recreation and physical training. Men who guide the destiny of Gulfport Field realize that soundness of body is essential to an alert, active life. Drill and calisthenics keep muscles toned and provide a refreshing change from the long hours of duty.

Permanent Party men have erected baseball and soft-ball diamonds and courts for volley ball and other sports. There is plenty of room at Gulfport Field for drilling and maneuvering, as the field stretches over more than 1,200 acres of coastal land. There are two obstacle courses and officers and enlisted men are required to keep in condition under the direction of competent physical instructors. Establishment at Gulfport Field of a Heavy Bombardment Processing Headquarters, a unit of the First Bomber Command of the Second Air Force, brought into full play the airdrome section of the field. The heavy bombers use the field as a base for simulated tactical operations over the Gulf of Mexico and pilots who are now flying the battle lanes of the world received much of their over-water navigational training at Gulfport Field.

Another section of the field is utilized by the 1308th Signal Pigeon Company (Aviation) and carrier pigeons

are trained here and taught to fly from planes. The company also trains the men who serve as keepers for these vital messenger birds.

Officers and men of Gulfport Field have carefully landscaped squadron areas. Keen competition exists to determine who has the most attractive area on the Post. The result is a clean, neat field. Each squadron has its own headquarters building, well equipped day rooms and barracks. Standards of military discipline and sanitation are unusually high.

A Service Club, Guest House, theaters, Post Exchange branches, barber shop, tailor shops, library, telegraph and signal offices, a sports arena, recreational building and five beautiful chapels are among the many conveniences for the personnel of the field.

It is obvious that much careful planning and much hard work has made Gulfport Field what it is. But there is something more intangible that makes the Post of unusual note. It is the spirit of cooperation, the determination on the part of every person on Gulfport Field, to make it the finest in the world. Another important factor in life at this Post is its fine Station Hospital, completely equipped and staffed with competent doctors, nurses and technicians. No better medical care is available anywhere, either in civilian or military life.

All other detachments operating on this field work efficiently and well in order to assure its smooth operation.

Ground was broken on May 8, 1942, for Gulfport Field. The field itself was not occupied until September of that same year, but members of the initial cadres were not inactive. They occupied temporary quarters in the Army Recreational Area in Gulfport and there, in tents that served as offices and barracks, they worked to perfect its administrative machine. When first students arrived in early September, school buildings had not been completed, but school officers did not delay. Tents were erected in squadron areas. Airplanes were assembled beneath trees. The teaching began and moved into school buildings as they were completed.

News of Gulfport Field, its purposes, aims and what its men are doing is reported by the "Gulfport Field Post," a twelve-page tabloid camp newspaper published each week.

Graduates of Gulfport Field have already taken their places on the battle fronts of the world. They are doing their work "in the Gulfport Field tradition."

## *112-Day Airplane Mechanics' Course*

New arrivals at the cargo and transport type Airplane Mechanics School at Gulfport Field are quickly made familiar with the full scope of their new work. After a short introduction, including the showing of two films, a conducted tour of the school system occupies the day prior to enrollment in the first branch. These soldiers, who will soon become the trained men who keep the Douglas Skytrain, Curtiss Commando and other giant cargo airplanes of the Army Air Forces in top flying condition, are given explanations on the various mock-ups and are guided through each building and hangar in which they will work. Simple school rules and regulations, duties of a crew chief, the method of grading (the last day of each phase being a practical testing day), and the first day's assignment for the first phase are explained.

## *Airplane Mechanics' Tools*

On the first day of actual study in the Technical School, the future airplane mechanic begins using hand tools. Throughout the eight days spent in this branch, he learns the proper identification, nomenclature, use and care of wrenches and screwdrivers, measuring, cutting, soldering, riveting and flaring tools. Safetying and locking devices are also taught. The student learns the application and efficient working use of each tool by the performance of practical projects on mock-up, using aircraft materials and aircraft hardware. The last day in the branch is spent on problem projects using tools, hardware and materials to determine whether or not the student progresses to the next phase. Each succeeding branch stresses proper tool identification in addition to care and use of tools.

The second phase, Airplane Structures, beginning the ninth day after the student has entered school, provides the first contact with an actual airplane. It is here that the student learns to do the following:

Identify and locate structural units and parts; handle, moor and clean an airplane; inspect and maintain safety belts, bungee cords, tires, tubes, wheels and bearings; load and balance an airplane, remove, install and rig control surfaces; perform minor metal and fabric repair; inspect and maintain oxygen systems, de-icing systems, flotation equipment and heating systems. In this phase, the student is given his introduction to Technical Orders, Maintenance-Inspection Instruction Forms and Form 41-B. As he progresses throughout succeeding branches, repetition in the use of these forms will add to his knowledge of them. On the twelfth day in the phase the student must pass the problem projects day satisfactorily before continuing on to the next branch.

The Airplane Hydraulic System phase is specialized and deals with Fluids, packing, seals, units or systems used in an airplane to actuate landing gears, wing flaps, cowl flaps, windshield wipers and brakes. The students begin their study by working with fluids, seals and units in addition to learning the fundamental principles of hydraulics. Progressively through the phase, the future airplane mechanic studies simple hydraulic systems, power sections, landing gear sections, wing flap sections and braking systems. Stress is laid on inspection, maintenance and trouble shooting on elaborate mock-ups as well as complete hydraulic systems installed in airplanes. Hydraulic shock struts and brake adjustments complete the student's work in this phase.

The fourth phase in which the student airplane mechanic works deals with the principles of internal combustion engines and accessories with the accompanying inspection and maintenance to be performed. The study begins with basic fundamentals of electricity and magnetism so the student may better understand and perform projects on magnetos, ignition systems and ignition timing. The student becomes familiar with internal combustion engine principles, use of special tools; does removal and installation of cylinders and valves; checks valve clearances; removes and installs accessories; inspection and maintenance of induction and exhaust systems; installation, inspection, reading and interpretation of engine instruments, and preparation of engines for storage. Actual engines are worked on by the students while mock-ups and cut-away models provide demonstration of operational principles.

Airplane oil, fuel and carburetor systems of modern airplane engines used in cargo airplanes are covered in this phase of study. The student becomes familiar with all units and systems by performing inspections and maintenance, installation and removal of units on mock-ups, checking and adjusting engine controls and performing related projects demanded by ever-changing flight conditions. Inspection and reading of pertinent engine instruments is stressed. The student also performs a limited amount of inspection and maintenance on turbo-superchargers and supercharger regulators.

In the electrical phase of his work, the future airplane mechanic learns the complete system whereby airplanes are served with electricity. The course covers fundamentals of trouble shooting and blueprint reading, batteries and auxiliary equipment, lighting systems, motors and auxiliary power units, starters, generator circuits and control umfc, generator paralleling and trouble shooting, wiring and operations of autosyn instruments. The student performs inspections, maintenance, wiring, continuity testing and .problem projects on electrical mock-ups as well as work on installations in

airplanes during the period of 11 days, in which he is in this phase.

Two types of airplane propellers, the Hamilton Hydromatic and Curtiss Electric Four Blade, and the various accessories and parts that are used in conjunction with the operation of these precision parts constitute the next seven days training in the course. Beginning with familiarization and nomenclature the student moves rapidly into checking propeller track, blade angle and minor blade repair. Two days are spent with special inspections, dis-assembly and re-assembly, installation and removal of the Hydromatic propeller. One day the student learns the proper maintenance and inspection on Hydromatic Governors, auxiliary systems and anti-icing. Projects covering the Curtiss Four Blade propeller include inspection, removal and installations, the relay system, proportional governor, diagnosing, correcting troubles, service and maintenance. Problem projects conclude the work in this phase.

Phase nine of the Airplane Mechanics Course at Gulfport Field's Technical School is a practical course in inspection, operating and trouble shooting of live operating airplane engines used in cargo airplanes. All installations in this phase are radial type engines of the R-1820, R-1830, R-2600 and R-2800 series. The student receives instruction in familiarization, inspection and adjustment of power plant installations. He starts and stops the four types of engines relying on his instrument readings to determine proper or faulty operation. Engine, fuel, ignition and electrical and mechanical troubles are diagnosed, corrected and pre-flight operations made to determine proper functioning.

The Inspection Branch of the school opens with the issuance of a complete new set of Maintenance Inspection Instruction Forms, Form I, I-A and Form 41-B, for student use. Forms 60-A, 60-B and 61 are maintained with the various airplane engines and propellers. The student performs first and second echelon maintenance and inspections on complete airplanes. During the 16 days spent in this phase the student accomplishes the pre-flight, daily, 25-hour, 50-hour, 100-hour and special inspections required on all airplanes and component parts to keep them in proper working order. Strict compliance is stressed in maintaining Forms 41-B, 60-A, 60-B and 61. Additional practical work in conjunction with oxygen systems, compass! compensation, hangar equipment, parachutes and trouble shooting is done by the student. One full day is given to loading and balance to better fit the mechanic to properly load and re-adjust loads to keep the cargo airplane balanced before take-off, during flight and again upon landing.

For the last eight days in the technical school, the student is assigned to a field area during which time he is a member of a "mock" Air Forces Squadron. He sleeps in a pup tent, eats in field mess, performs guard, mess and fatigue duty in addition to applying his technical knowledge and skill to practical simulated combat and field problems.

Airplanes are dispersed throughout woods and shrubbery, personal camouflage is practiced and runways are disguised

by the use of camouflage materials. Specific maintenance and repair jobs are given to the student. Limited time intervals are granted for the accomplishment of some inspections and problems which rely upon the ingenuity and ability of the student to get the job done. At the end of the phase, each student is ready to protect himself and his equipment. He has earned the right and responsibility of taking his place in the Army Air Forces to keep the cargo airplanes flying.

### **NEED TO EDIT AND ADD ENDNOTE**

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<sup>i</sup> Unit History. Gulfport Field. 1943.