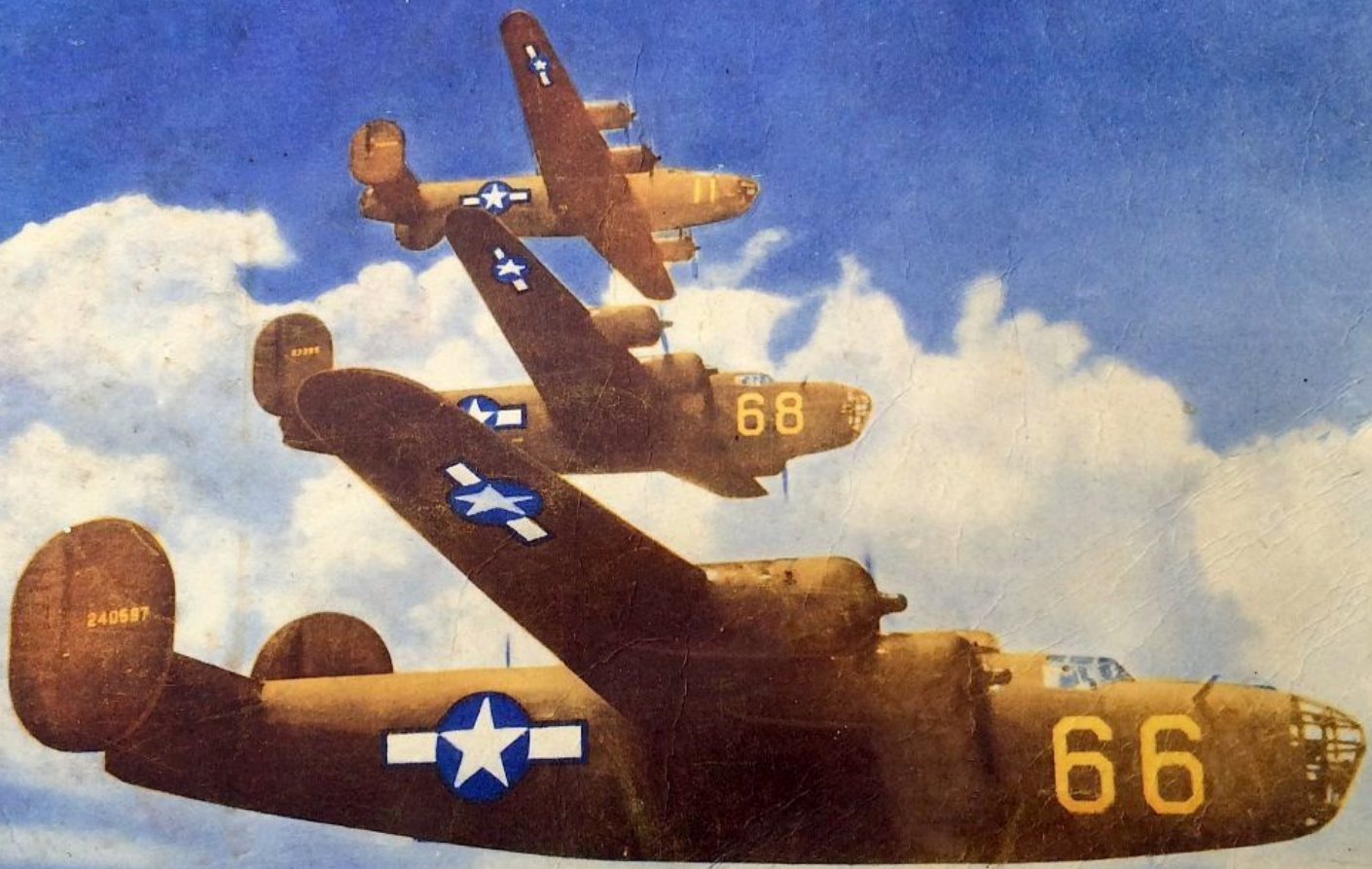
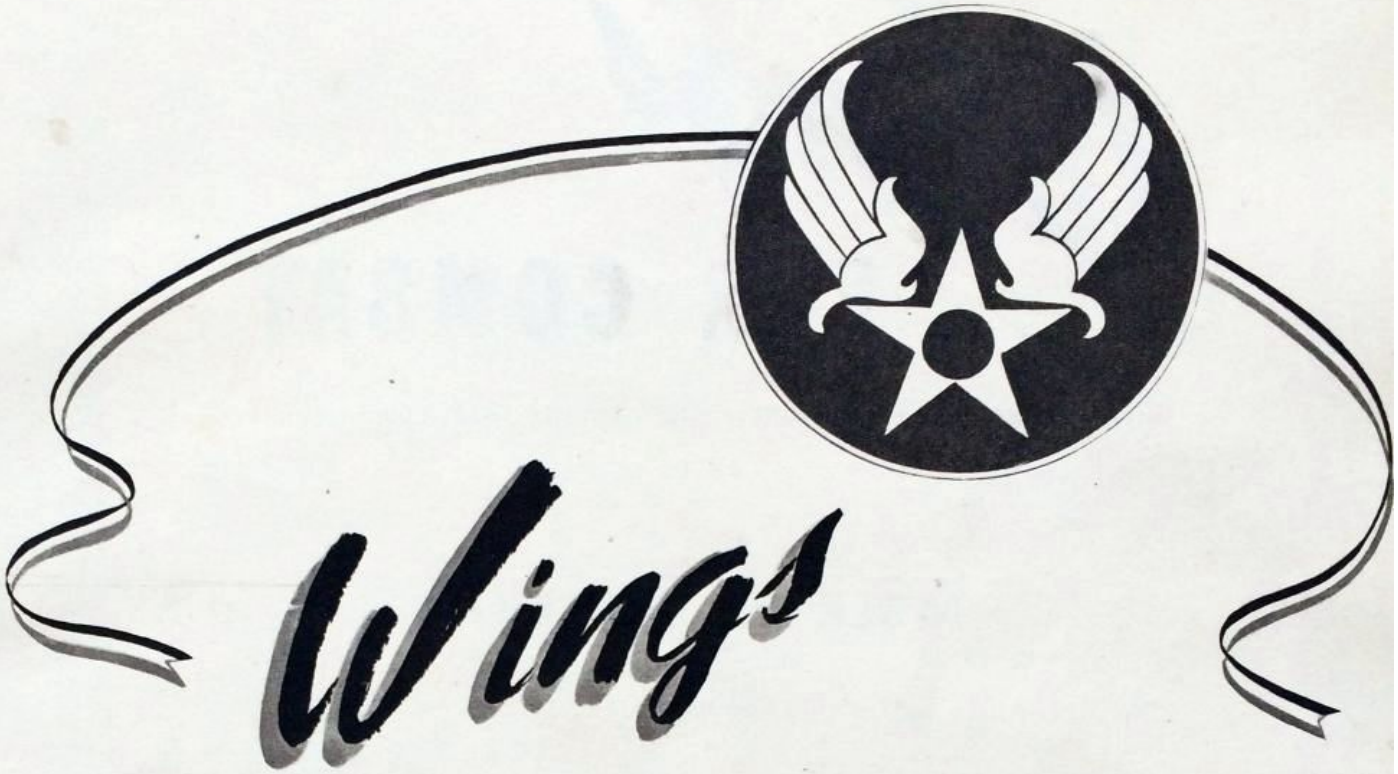
Wings FOR COMBAT



THE STORY OF THE ARMY AIR FORCES TRAINING COMMAND



FOR COMBAT

THE STORY OF THE TRAINING OF AN AIR FORCE

★

ARMY AIR FORCES TRAINING COMMAND ★ HEADQUARTERS, FORT WORTH, TEXAS

Wings FOR COMBAT

WITH 500 PHOTOGRAPHS PRINTED IN GENUINE SHEET-FED GRAVURE

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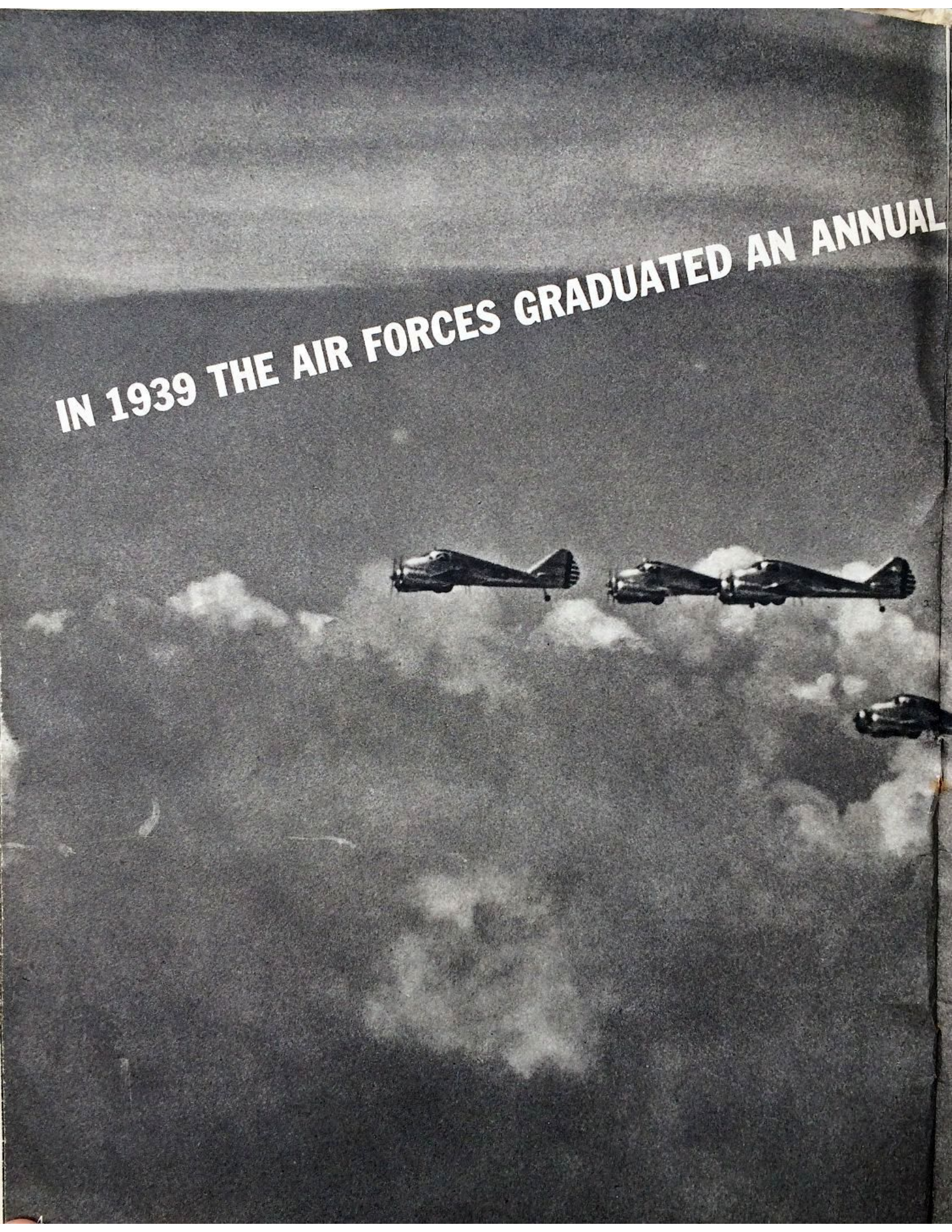
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IN 1939 THE AIR FORCES GRADUATED AN ANNUAL

TOTAL OF 500 PILOTS...

A GLOBAL WAR CHANGED ALL THAT.

THE CHIEF EXECUTIVE SAID

Give us

12,000 PILOTS

30,000 PILOTS

40,000 PILOTS

50,000 PILOTS

65,000 PILOTS



And now?



00,000 PILOTS

00,000 NAVIGATORS

00,000 MECHANICS

00,000 BOMBARDIERS

00,000 AERIAL GUNNERS

00,000 TECHNICIANS



The Army Air Forces

THE ARMY AIR FORCES TRAINING COMMAND is probably the largest single educational institution in the world today. Its domain is nationwide, covering every state in the union, and there is scarcely an individual in the United States who does not number a relative or friend in this vast organization.

The size of the Training Command is not an accident. For it is charged with a tremendous responsibility—the individual training of all air and ground crew personnel for the Army Air Forces. Upon its success in producing the world's finest pilots, navigators, bombardiers, gunners, armorers, radio operators, and technicians will depend in large measure the successful prosecution of the war against the Axis.

The training program of the Army Air Forces has expanded more than a hundred-fold since 1939, when Randolph and Kelly Fields were the only flying training centers in the nation, with an output of a mere 500 pilots annually. Today scores of pilot, navigator, bombardier, and aerial gunnery schools are scattered throughout the southern half of the United States, with thousands of training and combat type aircraft flying twenty-four hours a day to accomplish their epic mission.

The expansion of Air Forces technical training has been no less spectacular. In the two decades from 1921 to 1941, only 14,803 technicians were graduated by the Air Forces. As recently as 1938, the only Air Forces technical training school was situated at Chanute Field, Illinois, where mechanics, communications and armament were taught. This minuscule program was expanded until the Air Forces now boasts of more than half a million ground and air combat crew technicians who have been graduated from technical schools in more than sixty-five specialties.

Until July, 1943, flying training and technical training were performed under separate jurisdictions. The Flying Training Command, under Lieutenant General (then Major General) Barton K. Yount, was activated on January 28, 1942, and subdivided into three training centers, Southeast, Gulf Coast, and West Coast, which divided the nation's flying training activities into three approximately equal geographical divisions.

Headquarters of the Flying Training Command were first established in Washington, D. C., but were shortly moved to Fort Worth, Texas, a city chosen for its central location and because from there every flying training field in the nation was readily accessible by military or commercial aircraft in a few hours.

The Technical Training Command was activated on March 26, 1941, under Brigadier General Rush B. Lincoln. At that time this organization consisted of three technical schools, situated at Chanute Field, Illinois, Scott Field, Illinois and Lowry

Technical Training

If there is a peculiar American genius, it is the ability to make machines work. And this Genius met one of its supreme tests in the chore of making the most important machines in the world work—the clouds of airplanes that are knocking the Axis out of action.

The Genius passed the test, with an "A" rating. It has done this by rapid mass production of skilled mechanics and other technicians, trained quickly enough but thoroughly enough to keep the most powerful military forces in world history—the United States Army Air Forces—hitting constantly and hard.

Anyone whose automobile has ever been stalled, or whose radio has ever gone sour, knows how important the technician is in the simplest phases of modern daily life. How much more important is he in a field where machines and instruments must be kept in far better working order than any private automobile or radio—and through battering by storms, bombs and bullets!

CLASSIFICATION

Picking the Right Man for the Right Tool

To assure best results in this work of keeping Democracy's weapons sharp, only men virtually certain to make good technicians are chosen. A recruit assigned to the Army Air Forces undergoes a variety of scientific tests to determine what technical school, if any, he should attend.

The accuracy and complexity of these tests are themselves a good index of the changes in the AAF from the comparatively crude, experimental days of World War I. When technicians were needed to service the planes for our first Aces aptitudes and psychological tests were almost unknown.

Major Walter L. Weaver, later Commanding General of the Technical Training Command, was assigned to organize the Aviation Mechanics' School at St. Paul, Minn., back in 1917. He soon saw the need of some method of predicting what men could absorb the training and become skilled workers. So he bought a lot of toy Erector sets, put his prospective students to work on specific construction projects, and assigned officers to stand by with note books and stop watches. The slow and clumsy men were weeded out.

As today's task is so much more intricate, so must the selection process be more complicated. Written examinations, demonstrations, performance tests and interviews measure aptitudes, experience, education and preference.

In thousands of cases mechanical talent is discovered by the AAF for the first time. A lawyer, salesman, clerk, schoolteacher who had never lifted the hood of his automobile or changed the washer in a faucet suddenly found he had the makings of a good mechanic.

The system is so accurate that only a few per cent of the men chosen to attend technical schools fail to pass the difficult courses. And only a fraction of these are eliminated because of academic difficulties.

CONDITIONING

Our Technicians Can Fight

After classification, the technical student spends about eight weeks at a Basic Training Center learning the fundamentals of soldiering. He is taught to drill and salute, to keep his barracks, clothing and equipment in order, to fire various weapons, handle a bayonet, and to keep his neck in while on the receiving end of some gunplay.

And he is toughened. Although a physical training program continues to benefit him during his army career, it is in the BTC that he first loses his fat, puts on muscle and bone, and tones up his system to become a soldier.

Our technicians must undergo all the hardships of the fighting men in theaters of operation. So picked instructors send them through conditioning exercises, cross-country trips alternately running and walking, clambering and crawling through obstacle courses, practicing judo and other hand-to-hand combat methods, swimming with clothing on.

After eight weeks the soldier is ready for technical school.

THE SCHOOLS

Production Line Turns Out Experts

The sight of aviation cadets winging in formation through the clouds is pretty and inspiring, and a promise of victory. Less pretty, but just as inspiring and just as much a promise of victory is the sight of student technicians in training. A trip into the shops and laboratories cannot fail to impress any visitor. The sleek, shiny, intricate equipment, the grease-smeared drab green fatigue clothes of the students, the expressions of intense concentration of their faces; the blinding flare of the welder's torch, the dull green and red of the safe lamps in the photo dark rooms; the smell of hot oil and human sweat in the machine shops; the carbon monoxide of roaring motors on test blocks; the staccato rhythm of the telegraphers' keys; the cadenced song of a platoon marching to class—all these sights and sounds and smells harmonize into a picture of America winning the war in its own best way.

AIRPLANE MECHANICS form the bulk of the technicians. Many of the country's biggest military installations are devoted to their training—such as Chanute, Keesler, Sheppard, Amarillo, Lincoln, Gulfport, and Seymour Johnson Fields.

First they are introduced to the AAF system of service and maintenance, including the use of tools, fundamental operations of repair shops and the basic principles of electricity and circuits. There follow long weeks on structure, ground handling and mechanical features, including propellers, instruments and engines, hydraulic, electrical and fuel systems, climaxed with practical experience when students in groups take over and make inspections and repairs just as they will do later when assigned to fighting units.

Instead of immediate field service, the mechanics may be assigned to advanced schools for highly technical courses fitting them for the most difficult maintenance and repair jobs.



Training Command

Field, Colorado; fourteen civilian contract schools in various parts of the country, and a basic training center at Jefferson Barracks, Missouri.

Headquarters were at Chanute Field. General Lincoln was assigned to foreign duty, and the program, which was even then taking on monumental proportions, was placed under the efficient and farsighted direction of Major General Walter R. Weaver. Headquarters were moved to Knollwood Field, North Carolina, and the command was subdivided into five districts, with headquarters at Greensboro, North Carolina; St. Louis, Missouri; Denver, Colorado; Tulsa, Oklahoma; and Miami Beach, Florida. Some idea of the progress made by the organization may be gained from the fact that in one twelve month period, more than 100 new installations were activated and placed on an efficient operating basis.

On July 7, 1943, the Flying Training and Technical Training Commands were merged into one organization, the Army Air Forces Training Command. The purpose of the amalgamation was to bring the two closely-paralleling organizations into one Command which would integrate training with requirements; make lightning changes to keep pace with new developments, and coordinate manpower with machines. The reorganization effected a marked reduction in operative and administrative personnel.

General Yount was appointed to head up the vast new organization, whose Headquarters staff, consisting of more than 200 officers, occupies the top nine floors of the Texas and Pacific Railway Station in Fort Worth. The staff consists of key personnel of the former Technical Training and Flying Training Commands.

Under the reorganization, the old Technical Training Command Headquarters at Knollwood Field were inactivated, and the five former technical training districts were consolidated respectively into the Eastern Technical Training Command, the Central Technical Training Command, and the Western Technical Training Command, with headquarters respectively at Greensboro, St. Louis and Denver.

The former flying training centers were redesignated as the Western Flying Training Command, Central Flying Training Command and Eastern Flying Training Command, with headquarters at Santa Ana, California, Randolph Field, Texas, and Maxwell Field, Alabama.

Flying Training Wings, each commanded by a general officer, serve to coordinate training activities in each Flying Training Command with directives from higher headquarters.

The mechanics handle "first echelon" maintenance, consisting of day-to-day operating service, adjustment and repair.

AIRCRAFT MACHINISTS handle the heavier and more serious jobs, in the "second echelon" of portable machine shops, or the "third and fourth echelons" of more permanent installations farther to the rear of the combat zone. Machinist schools prepare these selected men with the same type of training first-class machinists receive in civilian life.

SHEET METAL WORKERS and WELDERS learn to recondition planes that come in pierced by enemy bullets. Their courses cover sheet metal work, tools and how to use them, properties of aircraft metals and solders, heat treating, splicing of cables and the technique of airplane fasteners, testing and repair of radiators, bending and connecting of metal tubing, and installation and repair of flexiglass.

ARMORERS learn the fundamentals of electricity, what a "solenoid assembly" is and how to "energize" it, servicing of relay switches and magnetic controls, the principles of chemical warfare, the firing and maintenance of small arms and machine guns, the construction and maintenance of gun sights and bomb racks.

Picked men from the armorers' schools take an intensive eight-week advanced training in the maintenance of power turrets.

PARACHUTE RIGGERS are trained to pack and care for the parachutes upon which the lives of aircrewmen depend. To qualify specialists, riggers must "drop test" their chutes to open in 3½ seconds from airplanes at 250 feet elevation with 150-pound dummies attached.

RADIO MEN learn to send and receive in code, to repair and install aircraft radio, and to master operational net and airdrome tower procedure.

GLIDER MECHANICS learn woodworking glues and glueing, steambending, plywoods, fabrics, mooring, towing, and to build new gliders, if necessary, from the wrecks of several others.

AERIAL PHOTOGRAPHERS study their job from taking the picture through developing and printing. They learn arrangement of mosaics, mosaic mathematics, design and use of various cameras, and advanced projection and enlargement.

WEATHER OBSERVERS learn the use, care and repair of instruments which measure barometric pressure, rainfall, wind-speed and direction, temperature, degrees of moisture in the air.

WEATHER FORECASTERS are handpicked with educational background emphasizing physics and mathematics. They receive long courses usually at leading universities, and prepare for the all-important job of weather prediction.

TELETYPE MAINTENANCE MEN learn battery and generator characteristics, basic magnetic phenomena and circuit wiring, teletype circuits, and repair of teletype machines.

LINK TRAINER INSTRUCTORS study the operation and care of the miniature indoor airplanes, as well as fundamentals of meteorology, civil and military air regulations, radio navigation and other subjects needed to control the "flight" of cadets using the devices.

AVIATION CADETS in training detachments, besides the courses for enlisted men, learn the duties and responsibilities of commissioned officers and prepare for service as technical officers.

BOMBSIGHT MAINTENANCE MEN learn to keep secrets as well as bombsights. They must care for the complicated, precise instruments by which bombardiers train their block-busters on Axis targets. And as most of the technical information about bombsights is secret or confidential, these men can't enjoy "talking shop."

FLYING TECHNICIANS

Guns and Wings

Keeping the planes in mechanical flying order is just part of the technicians' job. Each four-motored bomber carries six combat crewmen —two radio operators, two mechanics and two armorers. And these men become gunners when the enemy is in sight.

About half the graduating technicians qualify for aerial duty. These go to a gunnery school in one of the Flying Training Commands and learn to handle the defensive armament that will protect the precious planes on the assaults against the enemy.

After completing this course the technicians wear gunners' wings, and receive the additional pay awarded for flying duty.

Flying Training

THE COLLEGES

First Step Toward Wings

One of the most recent developments in the flying training program, a five-month course for future aircrew members in which they learn the fundamentals of the skills which they will later develop into razor-keen perfection at the specialized schools which they will attend.

The course is given at more than 100 leading colleges throughout the nation, and consists of more than 700 concentrated hours of academic and military instruction. Students receive instruction in mathematics, physics, current history, geography and English under the instructors at the institution. A staff of Air Force officers and enlisted men is charged with the responsibility for their military indoctrination. Under them the students receive thorough schooling in the customs, courtesies and regulations of the service, as well as military drill and discipline.

Further, each student receives approximately ten hours of dual instruction in light airplanes under the CAA, during which he learns rudimentary flight maneuvers, landing and traffic procedure.

CLASSIFICATION CENTER

Round Pegs for Round Holes

In the Classification Center the would-be airman spends from two to four weeks and gets the biggest physical and mental shaking down of his career. He is subjected to more tests than he ever imagined—tests devised by the nation's foremost psychologists—which will determine with uncanny accuracy his aptitude for air training. For "pencil and paper" tests he sits in a classroom with hundreds of other young men and writes the answers to examination questions devised to show not only his present mental status, but his potential for absorbing facts, knowledge, training.

In the "psychomotor" laboratory he is confronted with a battery of mechanical tests which test his physical reactions, eye-hand coordination. At the end of the tests, and having had his preference taken into account, he is classified for the job—either bombardier, navigator or pilot—for which his background, training, aptitudes and preference have most completely fitted him.

Graduates from Classification are appointed aviation cadets and go immediately to pilot, bombardier, or navigator Pre-flight Schools.

PRE-FLIGHT SCHOOL

"Look Proud, Mister"

Here for nine weeks the aviation cadet engages in an intensive bout with strict discipline, military customs, courtesies and drill. He gets his first introduction to courses in aircraft and naval vessel identification. He studies code, navigation and meteorology, and learns about oxygen in a low-pressure chamber and how to field-strip a Tommy gun. He also learns the snappiest drill west of the Hudson River, knows formal review procedure, spends hours a day at violent exercise and tough commando training, eats like a horse at the best Army messes in the world and comes out lithe, hard and eager to get into a plane.

PRIMARY

"Mister, that's an airplane!"

In primary, a civilian instructor takes the cadet to the flying line, points to a light, highly maneuverable craft, and says: "Mister, that's an airplane. We teach you to fly that."

And he does. Thirty minutes the first day, then an hour, then longer, and after from eight to twelve hours of dual instruction, the cadet is amazed to find that he can get into the airplane, take off, circle the field, making a proper approach, and land—by himself. He learns about "stages", and traffic patterns, how to perform acrobatics, how to read maps.

He comes to regard his instructor as a minor deity, quick to correct the slightest fault, sometimes a bit harsh, but always trying the best he knows how to put a future Army pilot on the right road to combat.

Primary schools of the AAF Training Command are operated by civilian contractors who provide messing, housing, flying and ground school instruction for the cadet. The cadet's military training, as at college, is taken care of by a staff of Air Corps officers, who, in addition to "keeping him on the ball" see to it that his flying proficiency is up to standard.

Then, after 65 hours in the air, and three times that many in classrooms, he is ready to go on to another step toward his coveted silver wings.

BASIC . . .

The Fledgling Becomes a Flier

He goes to basic. "And," observed a newly arrived cadet at one of the Basic Flying Schools, "the cockpit of a BT-13 looks like the grand canyon full of alarm clocks."

Soon, however, these instruments become old familiar friends. In primary the cadet learned to get off the ground, back down again, to fly straight and level. In 70 hours of basic he flies formations, learns maneuvers and stresses always the accurate precision flying of the airplane. He makes night landings, starting on a floodlighted field and ending in semi-darkness.

In ground school, the cadet rehearses the sending and receiving of radio code and blinker signals. He draws weather maps, interprets weather reports, studies cloud formations and "fronts."

Link Trainer practice is emphasized and to supplement it, he takes cross-country navigation flights and "team" instrument rides in which one student, with a hood pulled over the cockpit, actually flies blind while a classmate in the front seat keeps his eyes alert for passing aircraft.

At the conclusion of Basic, the cadet is classified on the basis of his own preference and the recommendations of his instructors as either a fighter pilot or for bomber training. If the former, he will go to a single-engine advanced training field. If he shows more aptitude for larger craft, his path leads to an Advanced Twin-Engine School.

ADVANCED

Last Step Toward Wings

At the Advanced Single-Engine School the cadet becomes one of the Eagle's brood. He is strictly on his own. Soon he will be in a single-seater that moves like lightning and deals death the same way.

He gets many hours flying the trim AT-6, driven by a 600-horsepower motor. He flies ground level and high altitude missions, using oxygen, learns about dead reckoning, more navigation and the thrill of combat tactics.

And, most important of all, it is at advanced school that the young pilot learns to shoot. He fires hundreds of rounds on the skeet range learning the rudiments of lead and deflection shooting. He spends many hours in a Link Trainer specially fitted with BB guns, firing at a moving target which speeds on a circular track.

Toward the conclusion of his course he goes to a remote range where he spends two weeks shooting with cameras mounted on his airplane, and with actual machine gun bullets. On his return from each mission the films which he has taken in dogfights with his fellow cadets are analyzed, and the cadet can see whether he was hitting or missing, and why.

The cadet's biggest day in advanced training comes when he climbs into the cockpit of a P-40 or P-39 and takes off. When he comes down he is ready and fit for his wings which he receives as he graduates, an Air Forces officer, from advanced school.

Like the aviation cadet in single engine schools, the eaglet in twin-engine advanced training reports to his field as a good pilot and leaves a first string "varsity man" for the Army Air Forces. His first task is to master the intricacies of flying a plane equipped with two sources of power.

Because the bomber is essentially a long-range weapon, there is greater concentration on practice missions, navigation and instrument flying. The pilot learns to find his way despite storms, fog, wind or strange terrain. The radio beam becomes another old friend. He spends long hours in the classroom analyzing confidential reports from combat theaters in every part of the world.

TRANSITION

He Flies the Big Stuff

On graduating from twin-engine advanced school, the young officer, proudly wearing his newly-acquired wings, reports to transition school, where for nine weeks he learns to fly the bomber which he will shortly use in action. The Flying Fortress, the Liberator, the B-25, or the B-26 become as familiar to him as his family's front porch at home. He learns to land and fly with one or more of his motors inoperative. He spends scores of hours on long distance navigation missions, flying his bomber through every type of weather to fields a thousand miles away from his home station. He continuously absorbs knowledge about his plane from instructors who have just returned from flying it in combat theaters.

NAVIGATION

No Margin for Error

If peacetime air travel demanded good navigation, wartime use of the air demands exact navigation. There is no margin for error, no allowance for mistakes.

Today, at specialized training schools located in several sections of the nation, navigation cadets are spending eighteen study-filled weeks to insure for the Army Air Forces men who will be able to "get 'em there and get 'em back."

Even in training missions, the cadet must navigate so well that he'll arrive with his plane at the end of a 500-mile jaunt within 3½ minutes of the ETA, the estimated time of arrival, and within five miles of his objective.

The navigation cadet learns the four principal methods of guiding a bomber across a continent or an ocean. The first is pilotage, the art of correlating a map with landmarks on the ground.

The second is dead reckoning, where by keeping accurate track of time, speed, distance and wind drift, he can ascertain his exact position without ever looking out of his plane. His tools for this phase are a chronometer, a drift meter, a Mercator chart, air speed indicator, free temperature gauge, and computer. The Navitrainer, a synthetic training device which can simulate on the ground every problem which is encountered on a dead reckoning mission in the air, is of invaluable assistance.

A third method learned by the navigator-to-be is use of the radio range and the radio compass with which the "radio bearing" is taken.

The fourth is celestial navigation, in which the cadet builds up an intimate sextant's acquaintance with Polaris, Sirius, Betelgeuse and 52 other trustworthy stars—the heavens' guideposts for trips to Yokohama or Dusseldorf.

In a bi-motored plane equipped as a veritable three or five desk classroom, cadets work actual problems in navigation—each plotting the course through a different method of navigation.

The new navigator spends 100 hours in the air. The air lanes he surveys take him over many states. He directs the ship through day and through night on four-hour missions, on eight-hour missions, striving always to attain "Zero-Zero"—perfection.

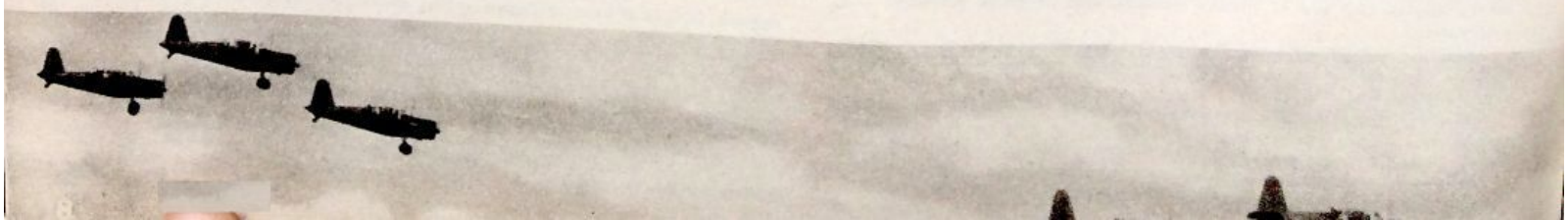
On graduation, these officers have behind them the most complete course in navigation that aviation science can devise.

THE BOMBARDIERS

They Lay Their Eggs in One Basket

The genius and the labors of millions of men and the expenditure of billions of dollars are wasted if the Air Forces fail to get a bomber above the enemy and to send its bombs into the target. That accounts for the rigorous training given at the Bombardier Schools of the Army Air Forces Training Command.

Classroom subjects cover much more than bombs and bombsights. The student bombardiers work problems in mathematics, aerodynamics, physics, and navigation, until their reaction-time has been speeded up to calculator



quickness. Aircraft identification is vital, for the bombardier frequently doubles as a gunner. Making an intensive study of enemy surface craft, the bombardiers learn where to send the bomb to blast a Jap cruiser in half. They study maps and aerial photographs of enemy targets—Berlin, Tokyo, the industrial areas of the Ruhr. And, again, stress is placed on the development of strong muscles and clear heads through physical training.

The cadet's introduction to bombing is from the "high chair," from which he gets a chance to try his accuracy while sitting 12 feet in the air. The chair rides the concrete floor on rubber-tires while the bombardier adjusts his sight in accordance with the movements of an electrically operated "bug" on wheels below.

Scurrying about on the floor, the "bug" has the same relative movement to that of the trainer as would the movement of an enemy battleship to a U. S. bombing plane.

From practice on the ground, the student goes aloft for "dry runs." His sight-settings are checked by an instructor. Later, he gets the thrill of turning loose scores of 100-pound practice bombs and watching the white puffs on the range as he hits or misses the target. The combination of the Army Air Forces bombardier and the U. S. bombsight has proved conclusively its potency in action.

THE AERIAL GUNNERS

As the war progresses on many fronts, it becomes increasingly apparent that America's paramount contribution is the four-motored heavy bombardment airplane.

Formidable is the Word

This sturdy craft is long ranging, heavily armored, and bristles from nose to tail with machine guns.

Four of the ten crew members are designated as air crewmen (pilot, co-pilot, navigator and bombardier) and the remaining six are combat crewmen. All the last eight men are qualified as gunners. It is the performance record of these gunners, trained in the Command's six flexible gunnery schools, which brings the big forts back.

Because these men would be too often just passengers if their only function were to preside at their guns, they are also required to be technical specialists —mechanics, radio operators, or armorers.

The gunner's role in aerial combat was described in a speech by General H. H. Arnold last year:

"It's the gunner who may double in brass as an engineer or radioman, who dishes it out—dishes it out in a manner designed to keep the other fellow at a respectful distance. They are all members of a team. For a time, only the pilot wore wings. Then wings were authorized for bombardiers and navigators. Now wings are authorized for the other men of that combat team.

"The gunner always has been appreciated by the Army Air Forces as such; now we are giving the man himself something to wear that will identify him as gunner—a man to be honored and respected by all."

The aerial gunner's apprenticeship begins with a workout on a standard .22 rifle range. Later he learns to lead a target on the skeet range where he blasts away at clay pigeons. When he begins to score from a standing position on the ground, he learns how it is when you try the same thing from the back of a truck bouncing down a rutted road. On synthetic training devices, the young "gunner" uses the standard turret sights and fires spots of light with a photo-electric gun. A meter records the number of "hits," and an automatic noise-maker accustoms him to the sounds of battle.

He first shoots real machine guns, the .30 and .50 calibers, on the ground ranges where he fires on targets which are atop driverless jeeps which run about on a track before his turret-mounted guns.

Finally, the gunner goes into the air to shoot at towed targets, from the turrets of an actual bomber.

The potential Axis-slayer gets also many hours in classrooms, learning the 200 parts of a .50 caliber machine gun, the various types of sights, and simple formulae necessary for sight adjustments. And he spends hours learning to identify all the world's aircraft.

A gunner never knows just how good he is until he swaps lead with an enemy aircraft. How well he is "swapping it" is told every day in front page accounts of tremendous enemy air losses at slight cost. But the headlines are written first in the hot slugs blasted out on the practice range.

War Colleges of the Air

When the Army Air Forces first entered the war, the prime problem was to get pilots, navigators and bombardiers into the planes a stepped-up production was turning out. They had to be good, but they had to be turned out in a hurry.

Later, with training in full swing, there came a breathing spell when General Yount and his staff could look around to find the spots which needed attention. Among the first things to demand remedial work was air instruction.

Thus, after 15 years as one of the Army Air Forces' best known flying centers, Randolph Field drew the assignment to training Air Forces pilot instructors for the entire nation. Instructors had always been good flyers. But that did not necessarily mean they were good teachers. Nor that they taught the same things in the same way. For instance, there are 47 recognized ways to do a "stall" in an airplane. Conceivably, 47 instructors might teach 47 students 47 different ways of executing the same maneuver.

So Randolph was given the job of standardizing instruction and of literally instructing instructors.

The school is divided into six parts, primary, basic, single-engine advanced, twin-engine advanced, ground school and school for military commandants.

Student-trainees for basic and the two advanced flying schools are selected from the top third of advanced training fields throughout the nation. Their course lasts one month and into it is crammed 60 hours of highly technical flying, psychology of teaching, analysis of maneuvers, the study of structural aircraft, theory of flight and other less stressed subjects. The future instructors are taught not only *how* something happens but *why*.

The primary course is attended by civilian pilots, either sent from government contract schools or headed for them. This course lasts two months.

The ground school teaches commandants of cadets, teachers for ground school subjects and also feeds the pilot his ground information.

At Bryan Army Air Field, also in Texas, is located the central instrument school for instructors, and the CIS for fixed gunnery instructors is on Matagorda Peninsula in the same state.

Central Instructors School (Bombardier) located at Midland, Texas, serves as a clearing house for processing all vital information pertinent to the instruction of bombardier students.

The nation's outstanding marksmen form the "faculty" at the Gunnery Instructors School at Fort Myers, Fla., where the lessons of war and the results of long experience are passed on to those who will teach the trigger-men in America's bombers how to aim and shoot.

A central instructor school for navigators was recently activated at Selman Field, Louisiana.

... And these, too!

In increasing numbers, America's "future generals", graduates of the Military Academy at West Point, have requested assignment to the Air Forces for training as pilots. In October, 1941, the superintendent of the Academy requested a plan of training for the institution's air-minded cadets. In response, General Arnold outlined a complete course of instruction, vesting administrative control and responsibility in the superintendent, and technical control in the Commanding General, AAF Training Command. Necessary directives were issued early in 1943 and today basic and advanced training is taught at nearby Stewart Field. Primary training is received at the civilian-operated detachments to which other aviation cadets are sent. Approximately 40 per cent of each class at West Point today seeks flying training and, of that number, all but an average of 10 per cent are selected.

An important addition to the training program was the initiation of a school for Negro aviation cadets at Tuskegee, Ala. These capable young Americans receive primary, basic and advanced training, and transition to tactical planes at Tuskegee. Already, early graduates of the course have been organized into a formidable combat unit and some of them have already seen action against the enemy.

Ready for their mission in carrying troops into the back-yards of the enemy, thousands of glider pilots have been trained, landing light airplanes with no power and slipping silently through the clouds on gliders' wings at the advanced glider school of the Training Command.

The liaison pilot, whose unheralded but highly important duties are performed in light planes, concentrates on behind-the-lines observation, patrol and message carrying. Specialized schools in the Training Command are turning out these winged messengers by the hundreds.

The importance of women in wartime military aviation was emphasized last year with the beginning of a new Women's Pilot Training program, under the direction of the Training Command. Women students, known as WASPs, between the ages of 21 and 35 receive a special course of flying stressing navigation. Calisthenics, mathematics, physics, code, weather and military courtesy also occupy prominent spots in the curriculum. On completion of the course, graduates are qualified for non-combatant flying duty with the Air Forces, principally in the ferrying division of the Air Transport Command. Miss Jacqueline Cochran, noted woman flyer, is director of the program which is in operation at Sweetwater, Texas.

Concluded only recently, the training of men for the Royal Air Force provided invaluable assistance at a time when it was most needed by Great Britain. In the interval during which thousands of youths from England, Scotland and Australia won their wings on foreign soil, the facilities necessary for returning training activities to United Kingdom possessions have been partially completed. However, training continues for refugee eaglets from The Netherlands and The Netherlands' East Indies, who will return to action under the colors of their homeland. Although supervision is provided by the Training Command, operations are directed by Dutch officer personnel at the Royal Netherlands Military Flying School at Jackson, Miss. Fighting pilots for China are being trained in large numbers in the clear skies of Arizona. Their training is complete from Pre-flight, through both single-engine and twin-engine advanced, and includes the final preparation in light and medium bomber Operational Training Units. Schools in the United States also have provided instruction for youths from more than a dozen countries of Central and South America, and training for several hundred French students has begun.





Foreword

In this book there is presented an accurate, up-to-date picture of the activities of the Army Air Forces Training Command — the organization which is charged with the epic mission of preparing for combat the pilots, navigators, bombardiers, gunners and ground crew technicians of the Army Air Forces.

Our air and ground crews are now making history in theaters of operation in every part of the world—and their exploits testify to the training they have received. But there is a larger task ahead of us—to provide still more highly trained specialists in the art of aerial warfare—to the end that the Axis shall be blasted from the face of the globe wherever he may seek combat or wherever he may hide.

This book will show how we are striving to accomplish that mission.

Barton K. Yount

BARTON K. YOUNT
Lieut. Gen., Army of the United States
Commanding General,
Army Air Forces Training Command







BARTON K. YOUNT
LIEUTENANT GENERAL, A.U.S.
Commanding General Army Air
Forces Training Command



WALTER F. KRAUS
BRIGADIER GENERAL, U.S.A.
Chief of Staff, AAF Training Command

The Technicians—
They Learn 65 Essential Jobs

The technicians are the backbone of the Army Air Forces. Each member of a ground and combat crew must have his highly complex skills at his fingertips to insure the success of a mission. Representative technical specialties taught to enlisted men and officers of the AAF Training Command are portrayed on the pages which follow.





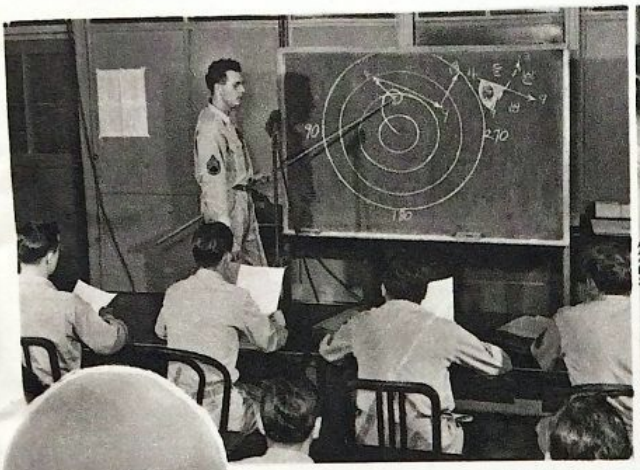
Weather observer students in teletype class.



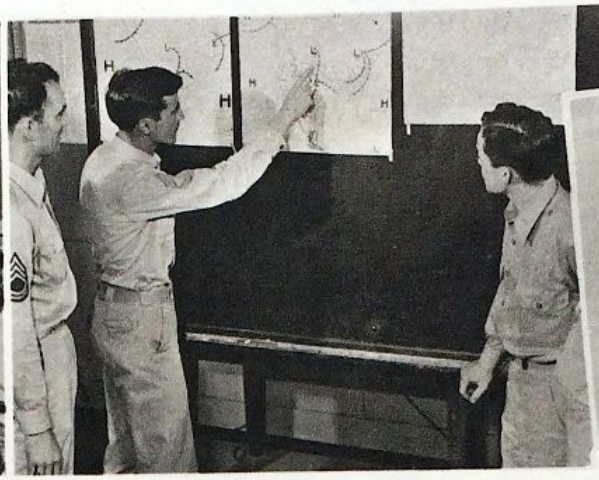
Meteorology cadets learn to operate radiosonde equipment.



Weather observer students plotting balloon route.



Forecaster student making single station analysis.



Practice briefing session.



(Below) Weather observer servicing anemometer.



Pilot balloon ready for release.

Aviation cadets study mechanism of thermo-hydrograph.



Weather observers change chart on microbarograph.



Observers read instruments in shelter.

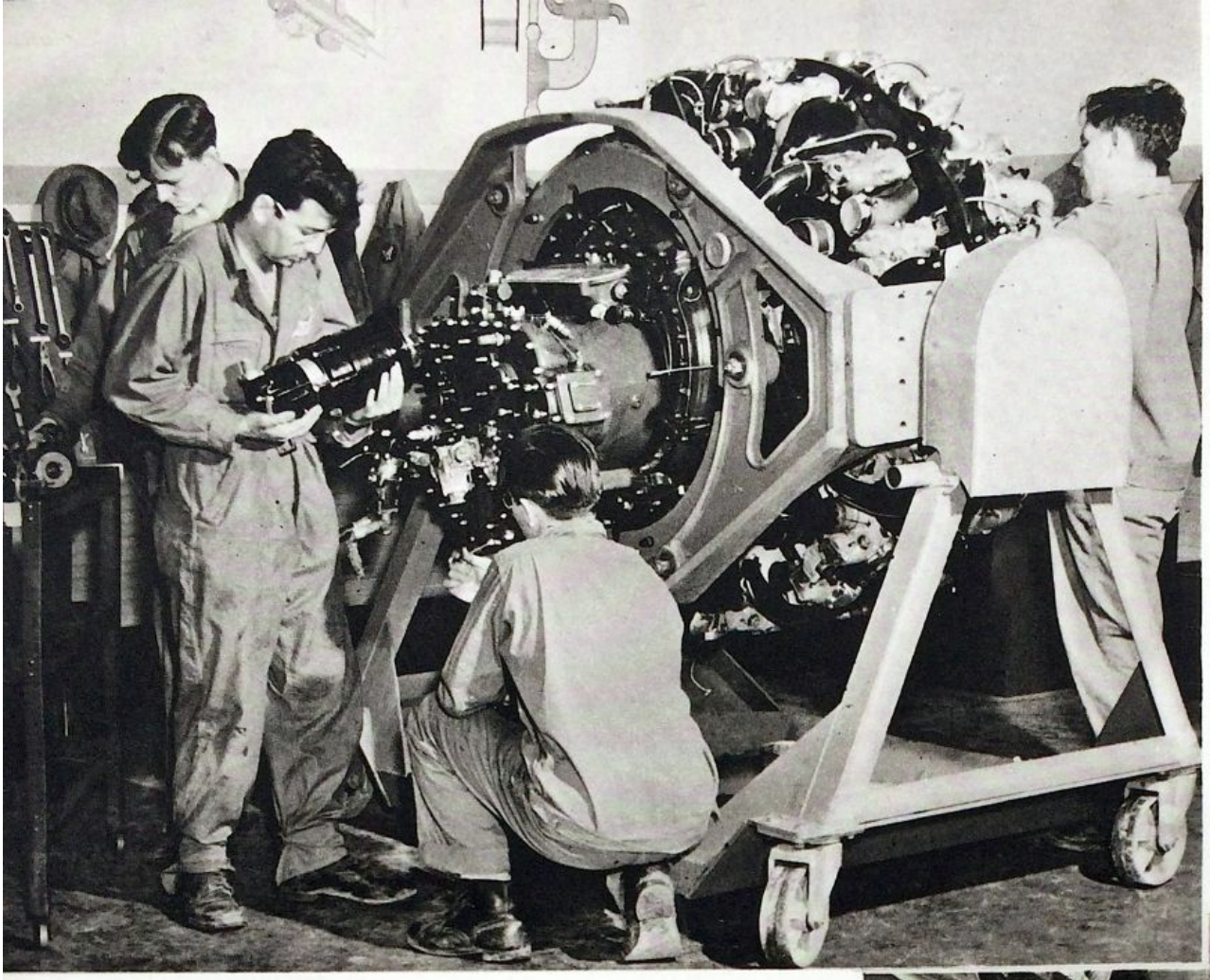


Weather forecasters making upper air analysis.



Future meteorology officer follows course of balloon through theodolite.





Airplane mechanics learn how to remove and install accessories.

Aviation engineer cadet establishes basic center of gravity of airplane to determine optimal loading.





Future engineering officers install ignition harness on radial engine.



Student mechanic learns use of compass.



Aircraft sheet metal repair section.

Student welding gusset plate.





Machinist student operating milling machine.



Electric arc welding.



Aluminum welding demonstration.



Operating Doall machine.



Aircraft metal worker repairs damaged wing tip.

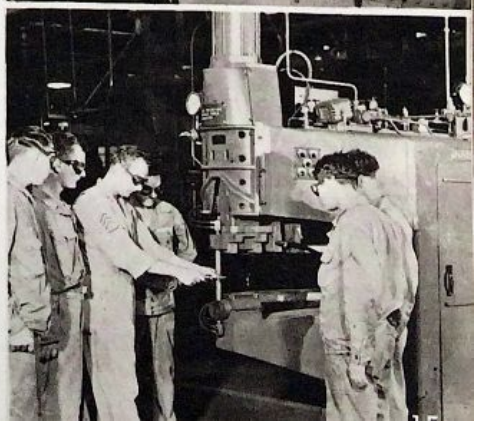


Repairing bullet holes in fuselage.



(Right) Demonstration of resistance welding.

(Left) Machinists learn operation of heavy equipment.





Installation of glider instruments.

Mockup of B-26 fuel transfer system.

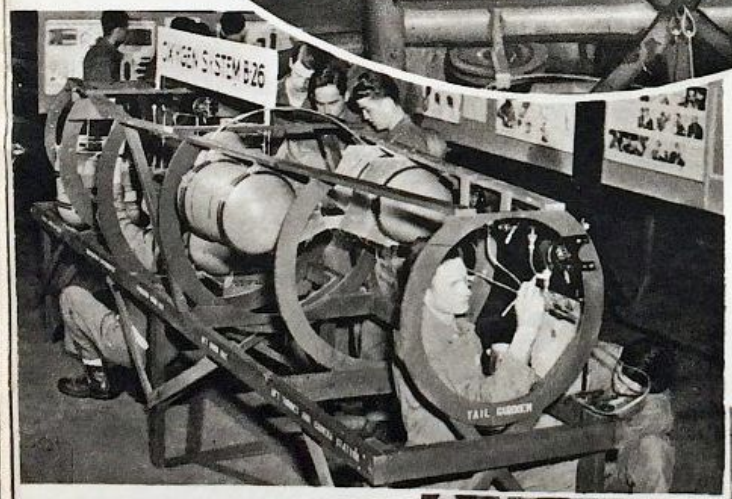


Demonstration of tensile strength machine.



(Below) Checking brake clearance on glider.





Airplane mechanics study B-26 oxygen system.

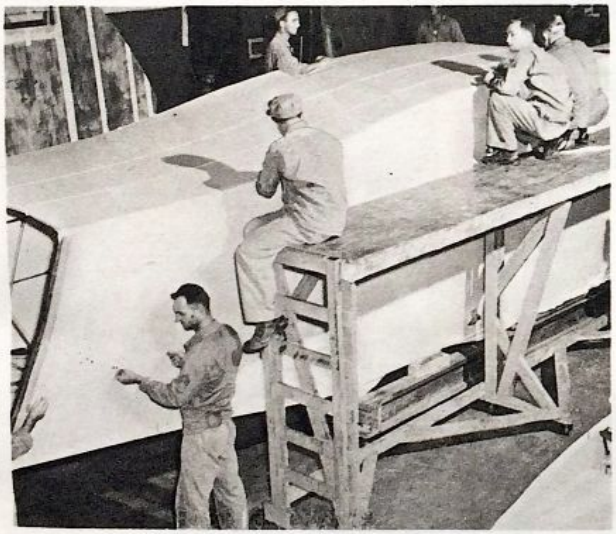


Mechanics study landing gear timing valve adjustments.



Glider mooring instruction.

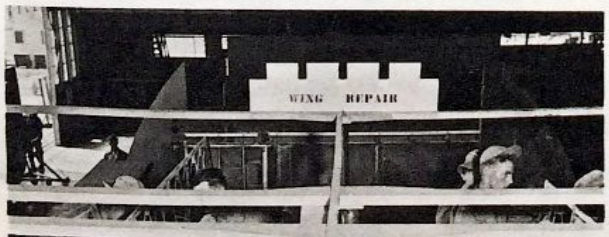
Cargo type glider is loaded by glider mechanics.



Glider mechanics covering fuselage of CG-4A.



Students in maintenance shop at special purpose motor vehicle school.





(Left) The fine points of wing repair.



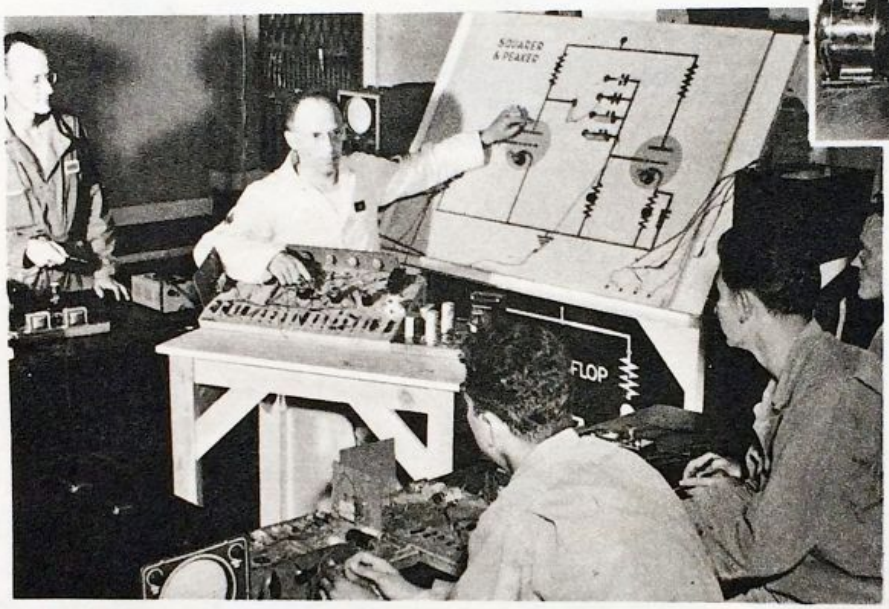
Loading vehicle under combat conditions.



Performance check tests radio mechanics student.



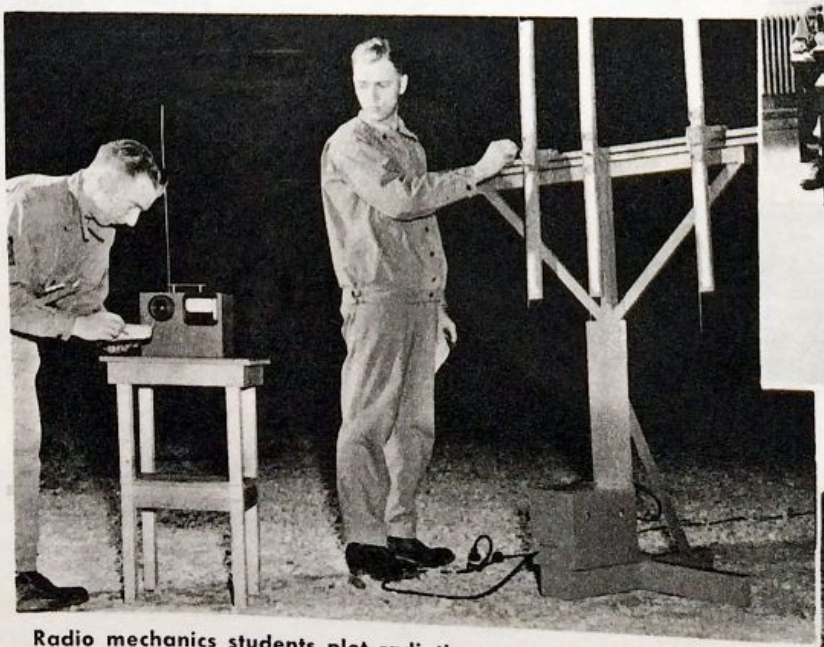
Testing resistance of power transformer.



Student radio mechanics hear lecture on squarer and peaker circuit.

(Below) Teletype maintenance students at their machines.





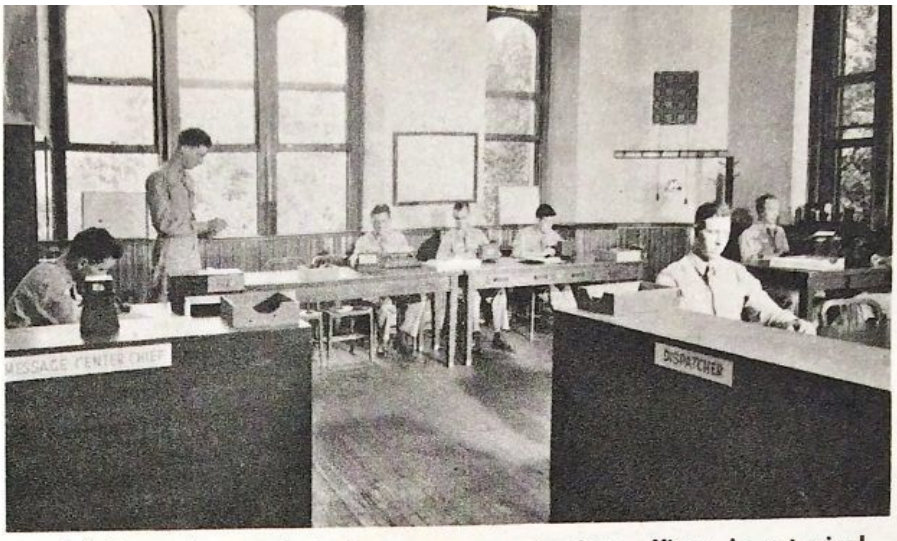
Radio mechanics students plot radiation pattern for a directional antenna array.



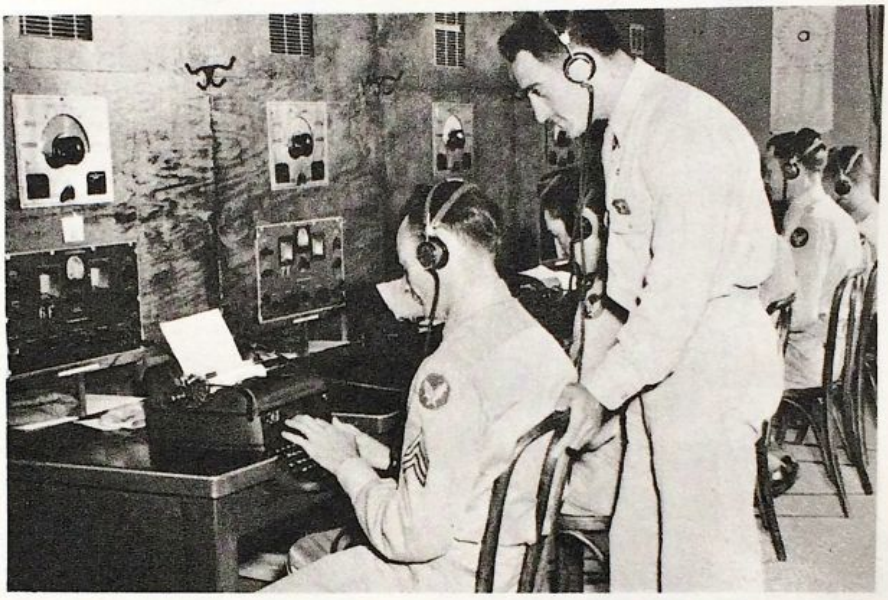
(Right) Student receives instruction in teletype maintenance.



Interior view of radio direction finding shelter.



Aviation cadets study to become communications officers in a typical message center.



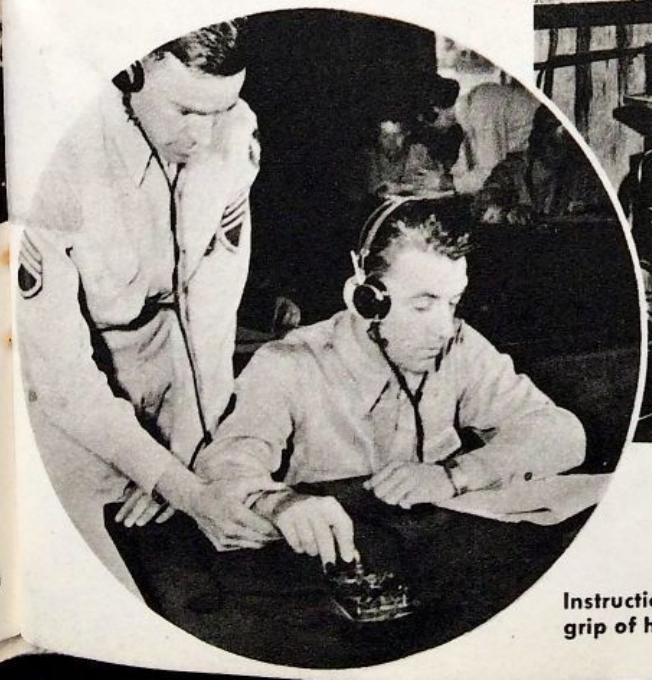
Radio operator students receive and transcribe Morse code on typewriter.



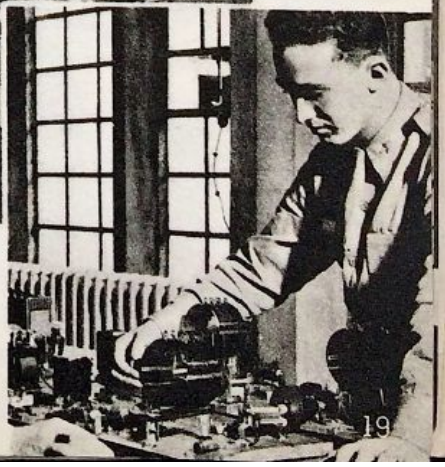
Radio operator students learn how radio direction finder works.



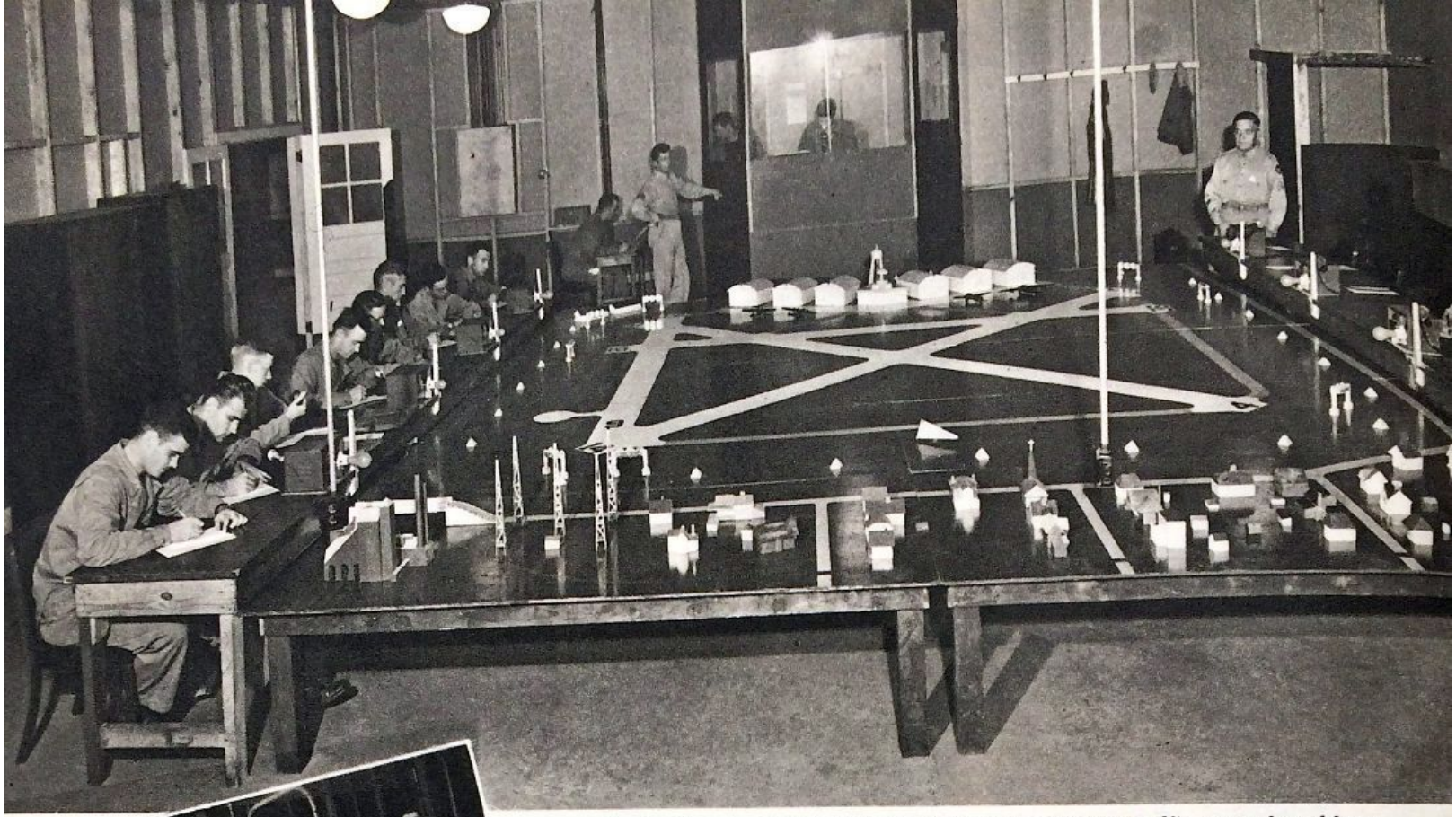
Future communications officers learn operation of mobile radio ground station.



Instruction in proper grip of handkey.



Bread board construction.



Control tower operator students simulate airport traffic control problems.



Future Link instructors "fly" orientation problem.



Link instructors check base of trainer.

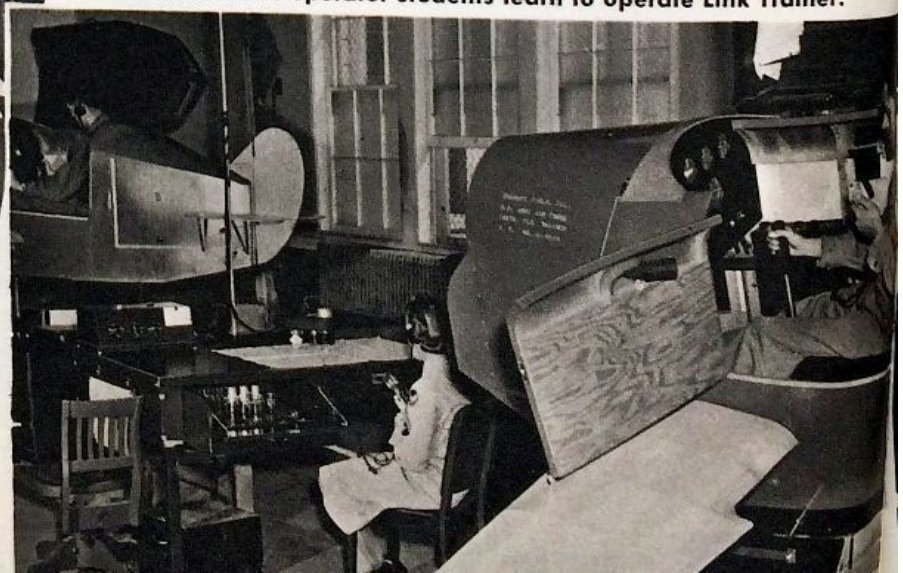


Lesson in aircraft recognitio



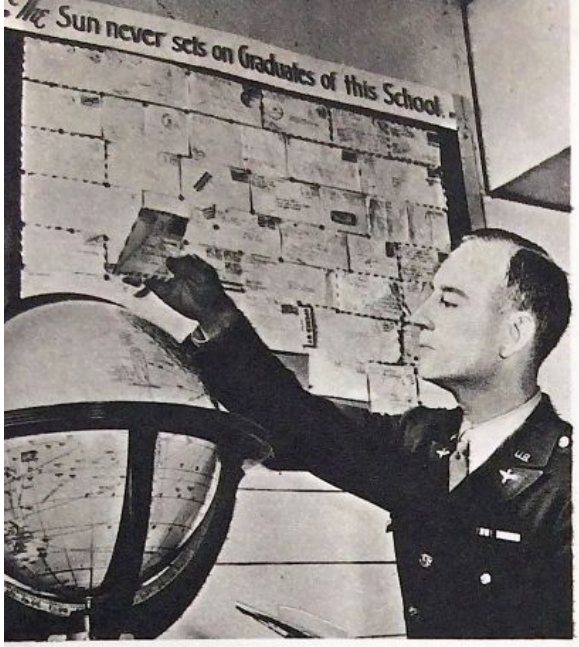
Operating desk where Link instructor simulates radio procedure.

Control tower operator students learn to operate Link Trainer.

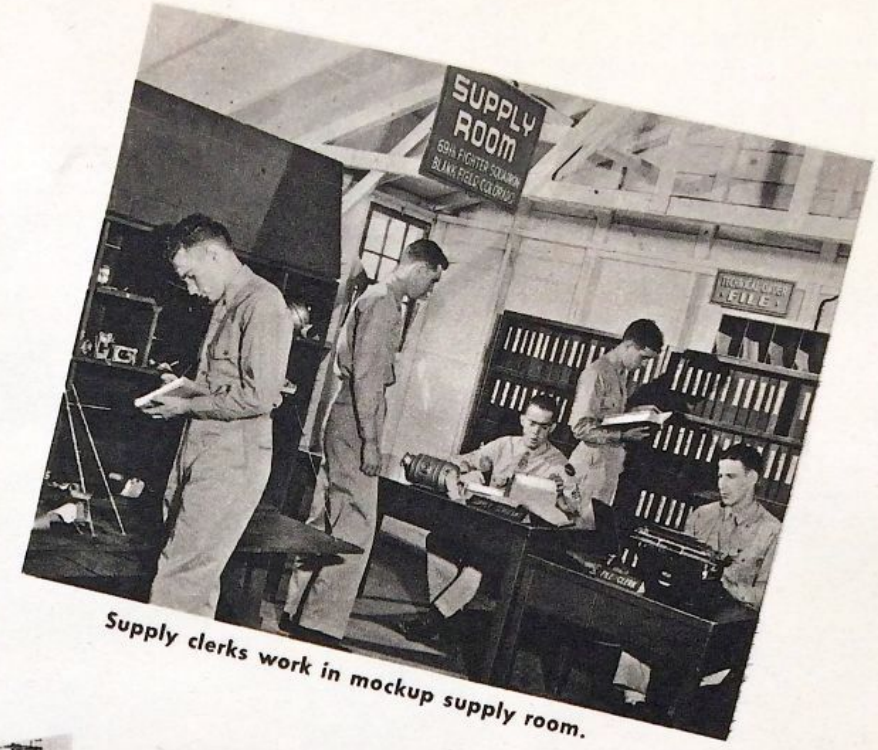




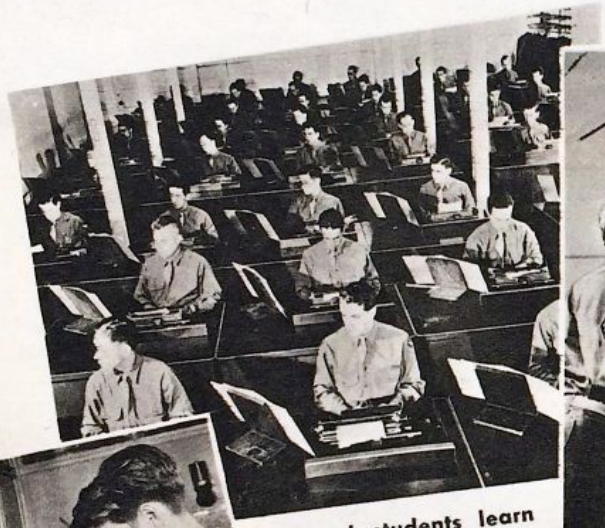
Student at controls of Link Trainer.



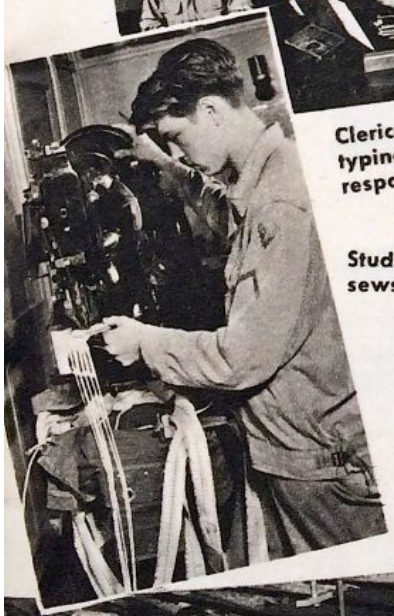
Director of training at clerks school scans mail from graduates the world over.



Supply clerks work in mockup supply room.



Clerical students learn typing and military correspondence.



Student parachute rigger sews harness.



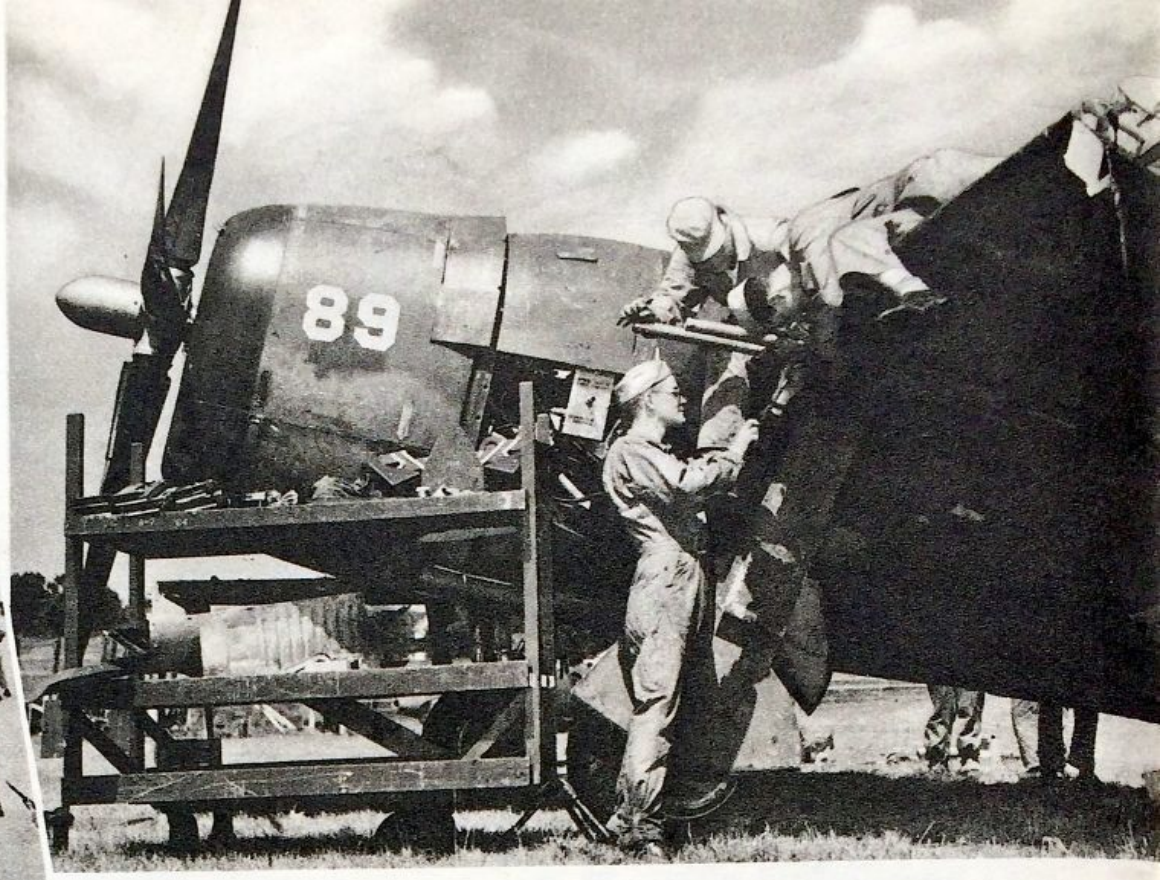
Packing a cargo parachute.



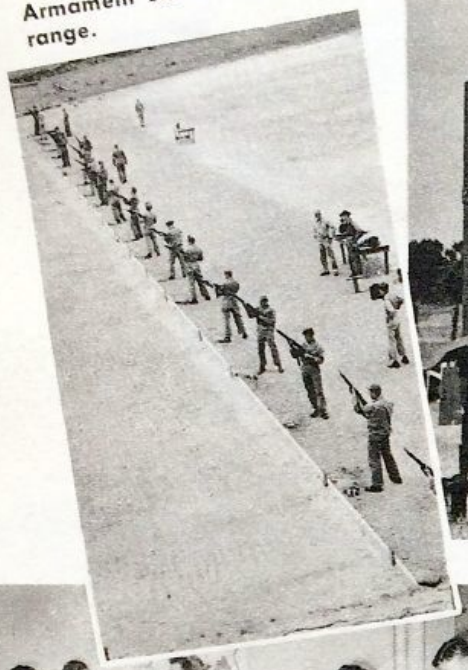
(Above) Future engineering and operations clerical students learn to use traffic control board. (Below) Parachute riggers examine pneumatic life raft.



Armament cadets putting the stingers into a modern pursuit ship.



Armament students on rifle range.





Instructor explains reasons for malfunction of machine gun.



Cadets in aircraft armament officers' school learn how machine gun fires through propeller.



Armament students synchronize plane's guns.



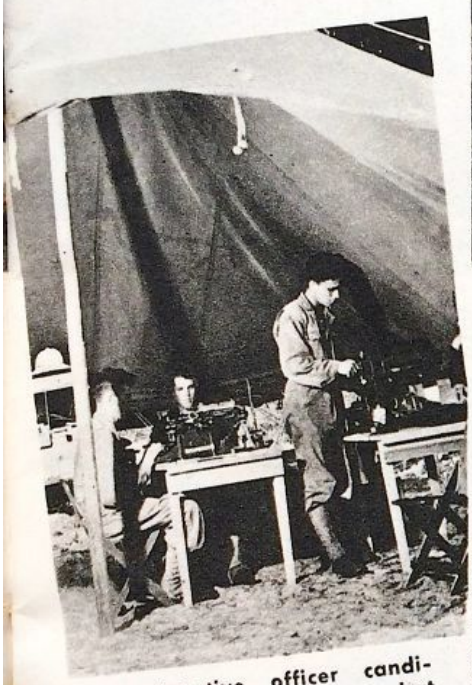
Instruction on caliber .50 machine gun.



Pistol practice.



Personnel adjutant specialists in administrative officer's course inspect kitchens.

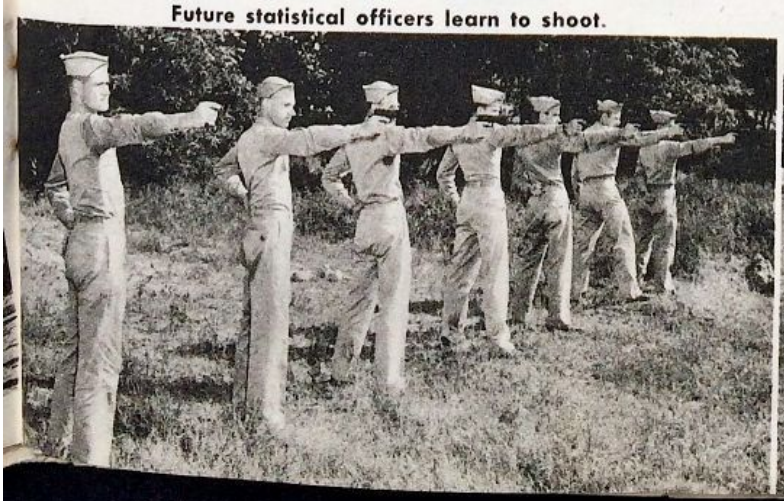


Administrative officer candidates cut orders under combat conditions.

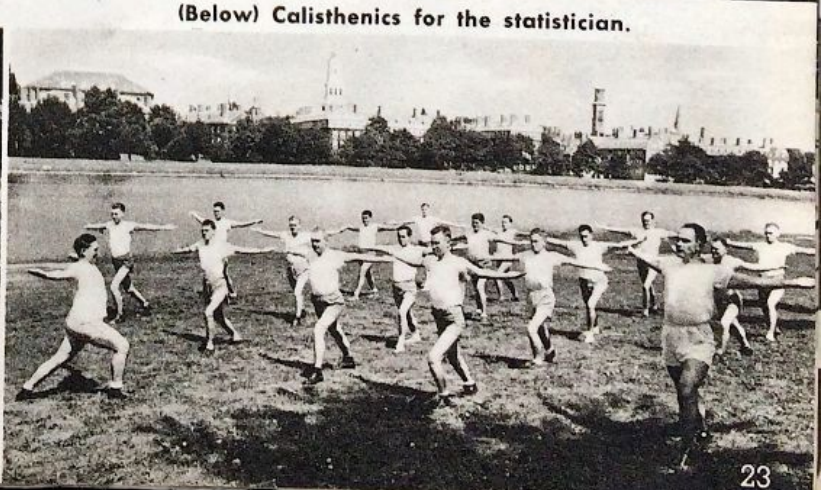
(Below) Orientation lecture on progress of war.

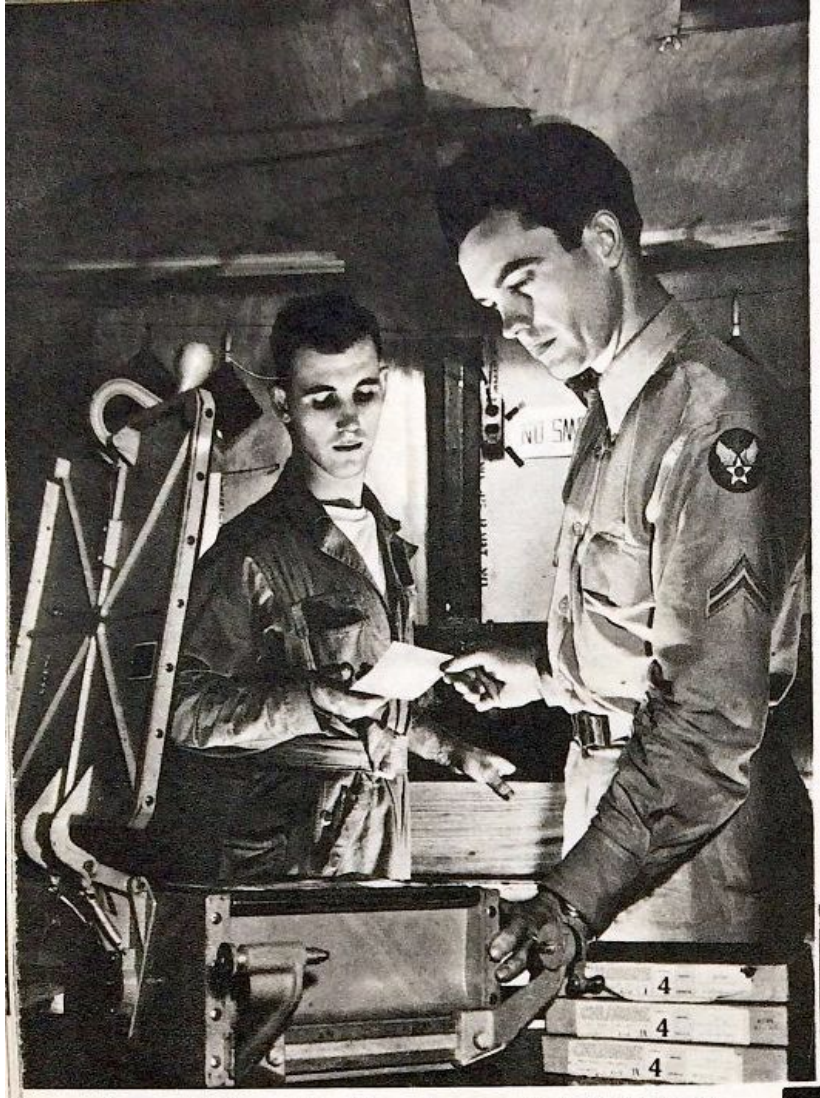


Future statistical officers learn to shoot.



(Below) Calisthenics for the statistician.





Future photographic officers learn contact printing and processing.

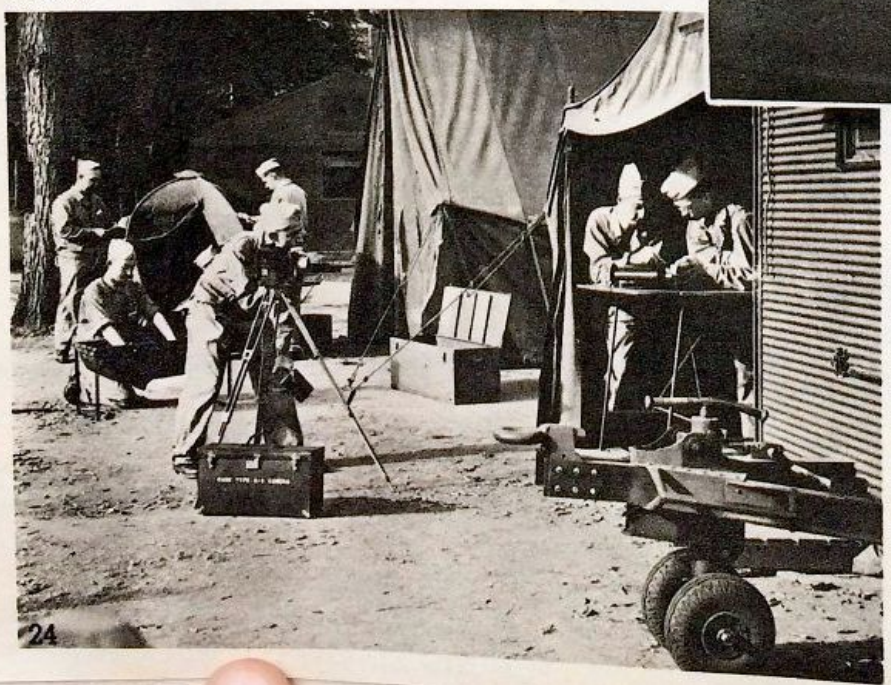


Cadets use stereoscope to pick control points on prints prior to assembly of mosaic.

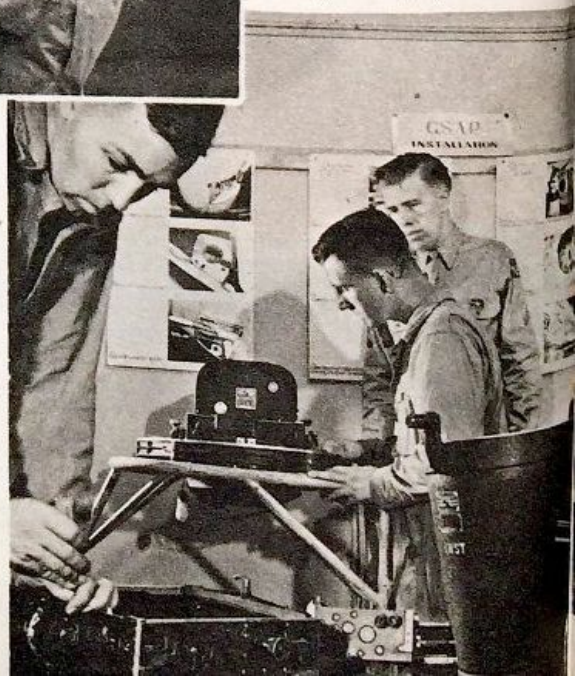


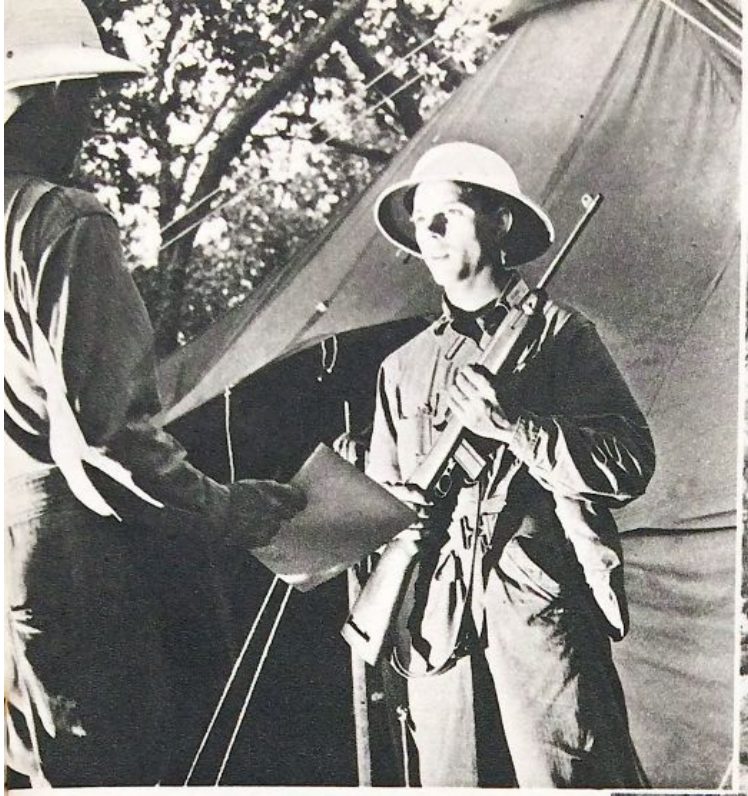
Aviation cadet removes K3B camera from B-24 after completing aerial photographic mission.

(Below) Portable field equipment in use by photographer cadets.

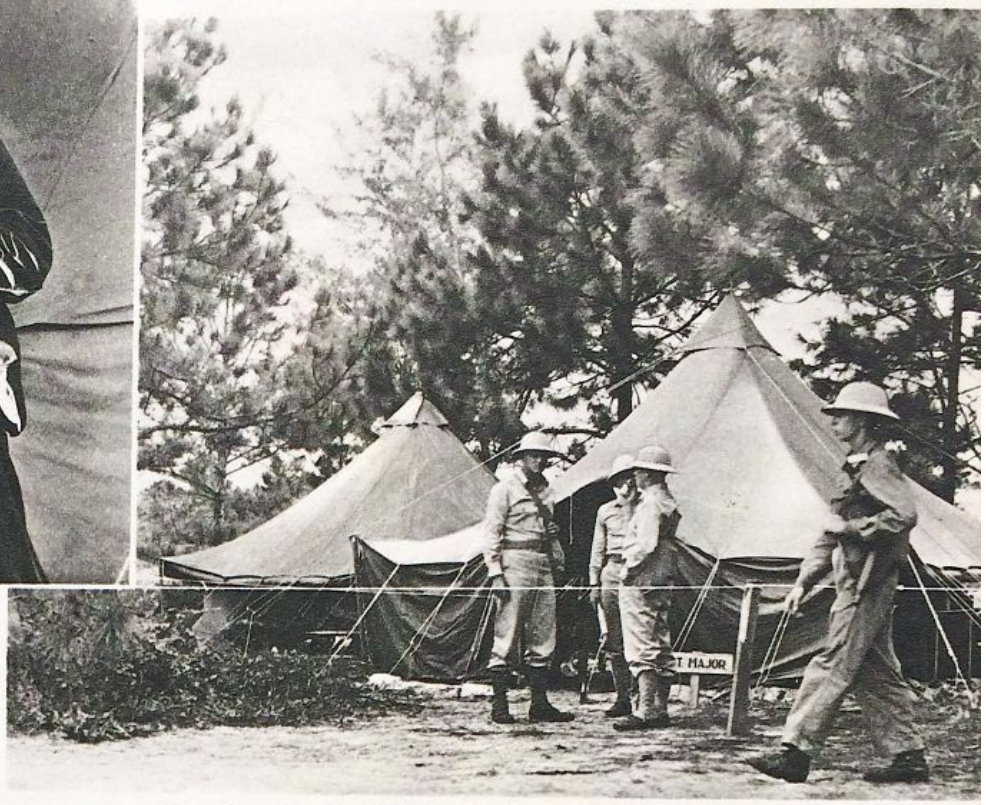


(Below) Classes emphasize repair and maintenance of complex equipment.





Guard challenges visitor to post.



Guards maintain vigilant watch near important installations.

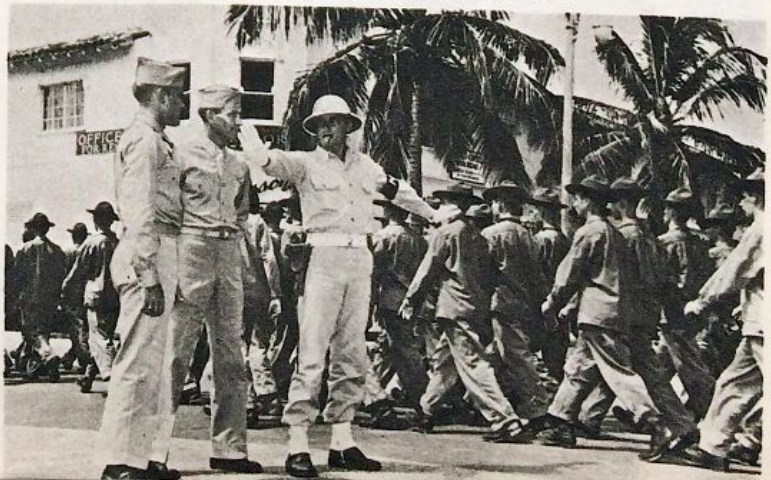
Inspecting credentials.

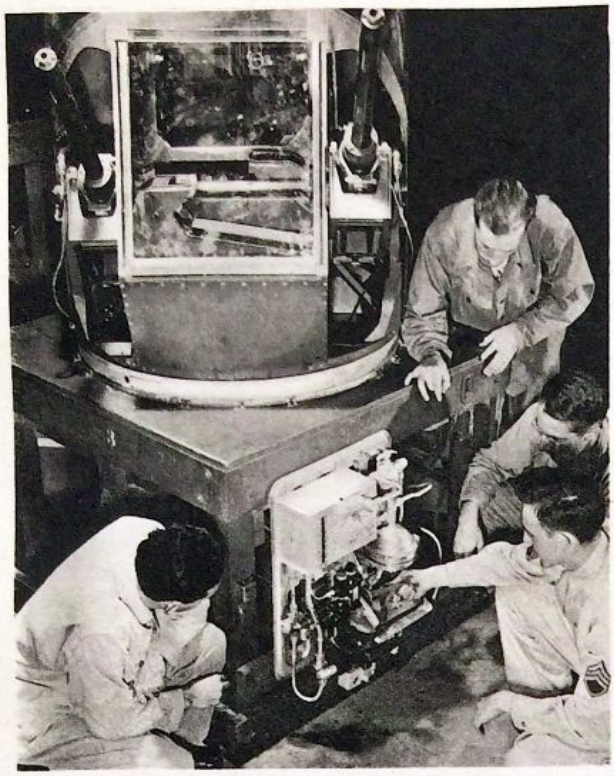


Guard squadron specialists keep rifles in good repair.

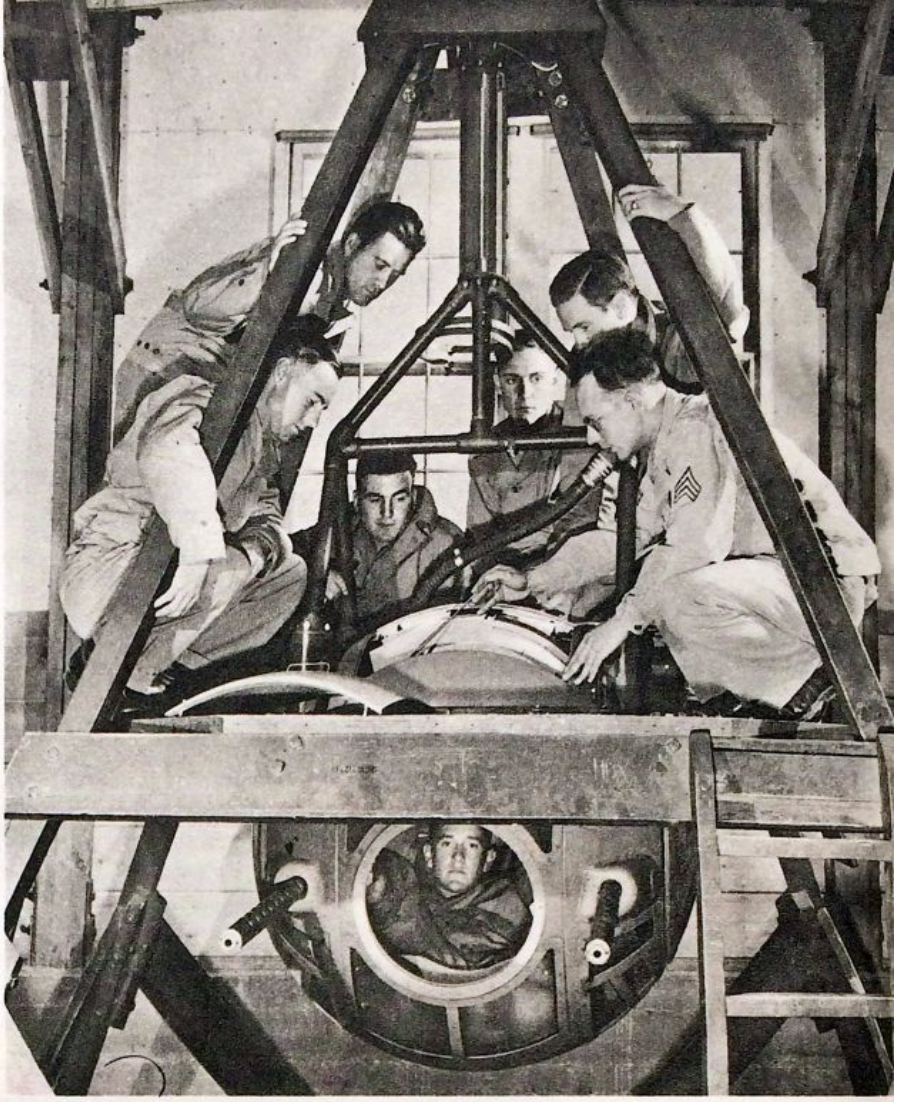


Guards learn to control traffic.





Demonstration of delicate adjustment on tail turret in power turret division of armament school.



Operation of lower ball turret at armament school.

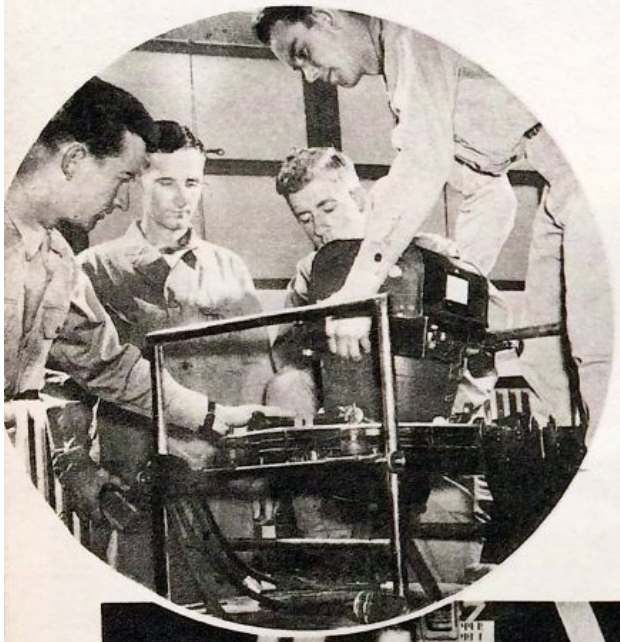


Photo technicians receive instruction in mounting aerial cameras.



Maintenance and repair of power turret dome.

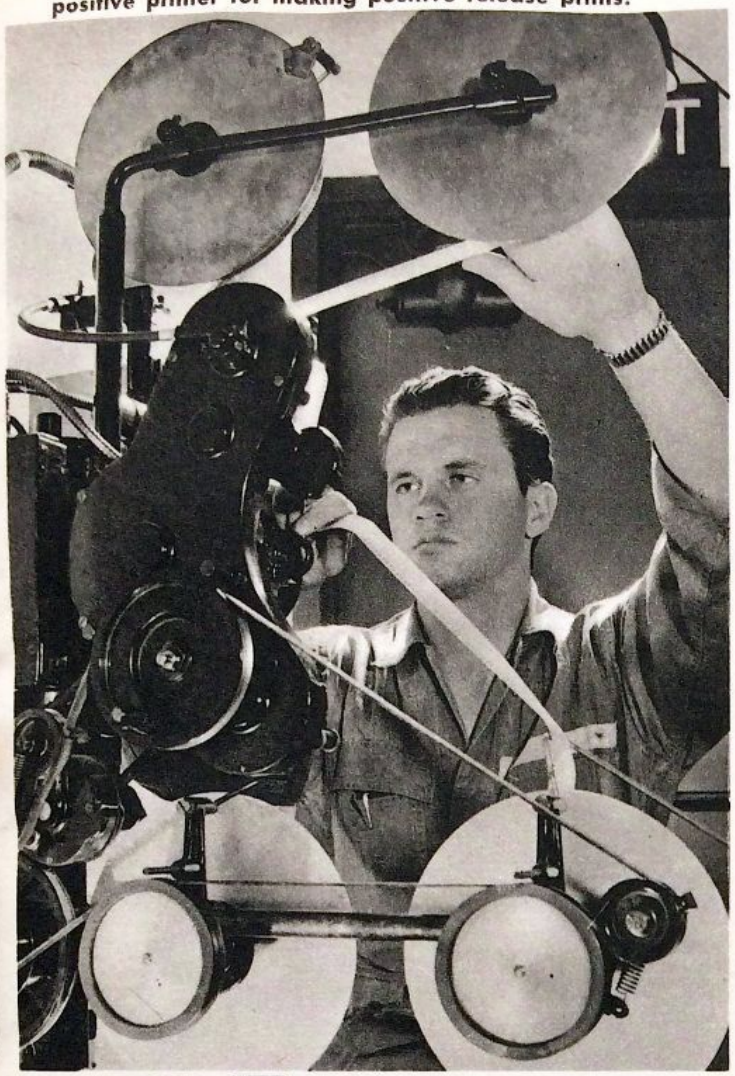


Armament school students study lower ball turret.



Future armorers see classroom demonstration of power turret in jig setup.

positive printer for making positive release prints.

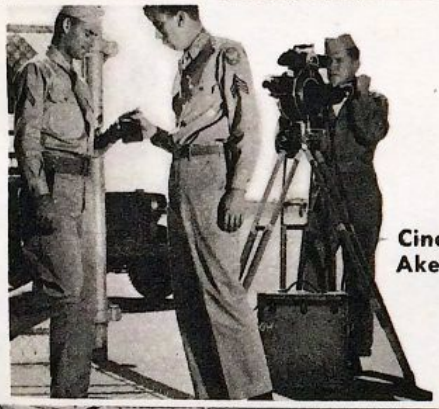




Instruction in installation and maintenance of aerial camera in nose of F-4 airplane.



(Above) Establishing camera coverage and points by use of metal strips from a transfer taken from photographs.



Cinemaphotographer practices with Akeley motor driven camera.



Phototopographic student uses stereoptic viewer to correlate aerial photographs.



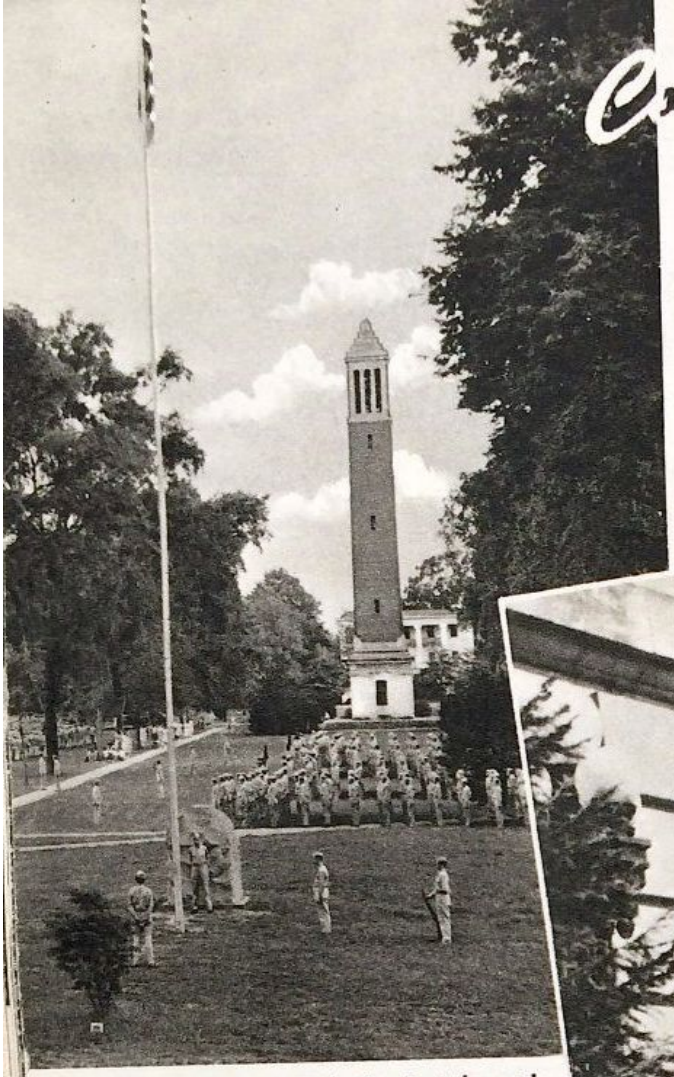
Sergeant checks operation and maintenance of 35 mm. negative developing machine used in cinemaphotography course.



Photographic technicians receive instruction in printing and finishing.

College Training — The First Step Toward Wings

The following pages portray the activity at a typical college training detachment for aviation students. Here, for five months, future aircrew members become letter perfect in the fundamentals which they will later develop into razor-keen perfection at the Training Command's specialized pilot, bombardier and navigation schools.



Aviation students stand retreat at the end of a busy day.

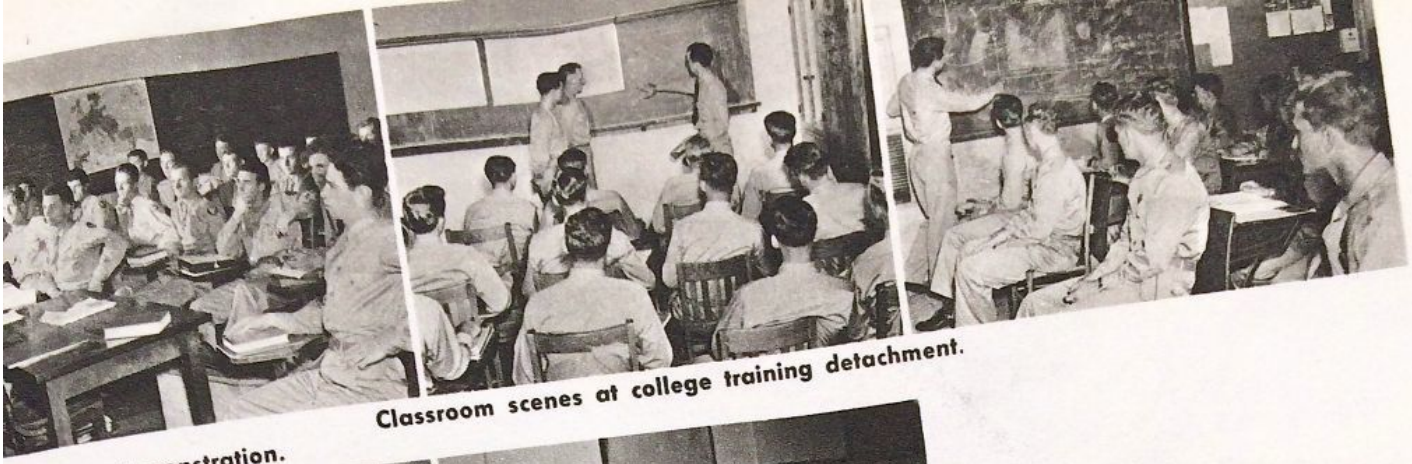
(Below) Students in spick and span uniforms leave college classroom.





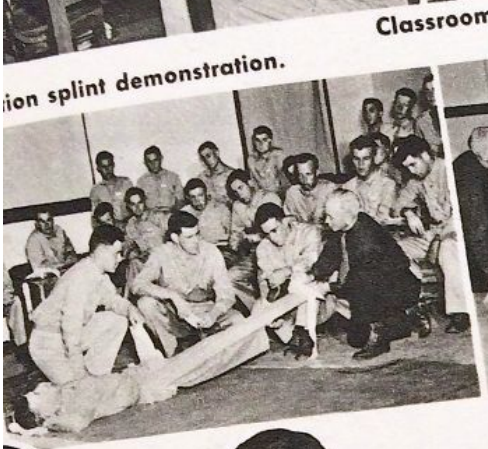
(Below) Books under their right arms, aviation students march in formation.





Classroom scenes at college training detachment.

ion splint demonstration.

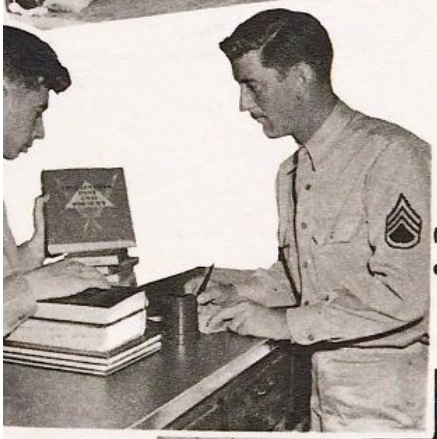




Artificial respiration.



Physics demonstration.



(Left) Up-to-date text books are issued to students.



Relaxing after a hard day's work.



Chow line.



Jam session.



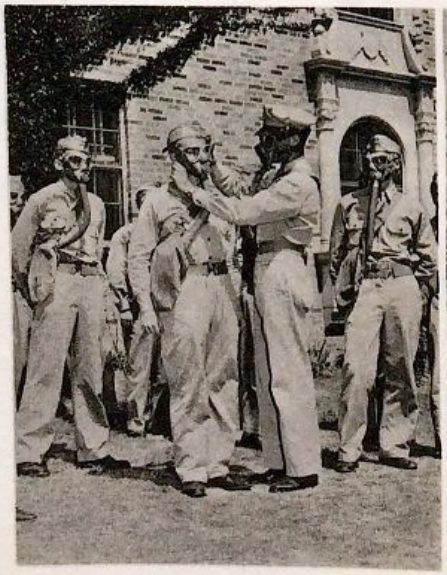
Close harmony.

(Right) Student learns cockpit checking procedure.

Line of light trainers ready for take-off.



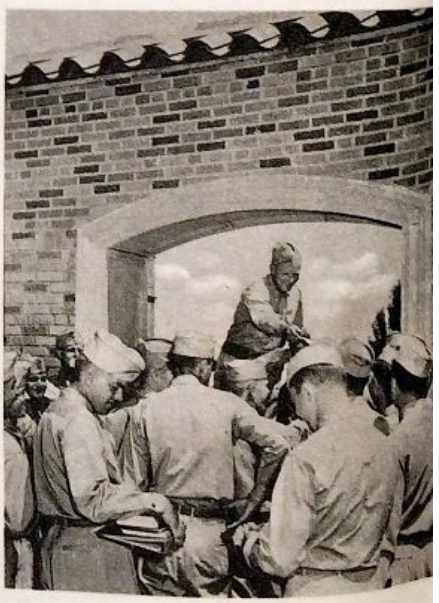
Students learn about traffic patterns.



Gas mask demonstration.



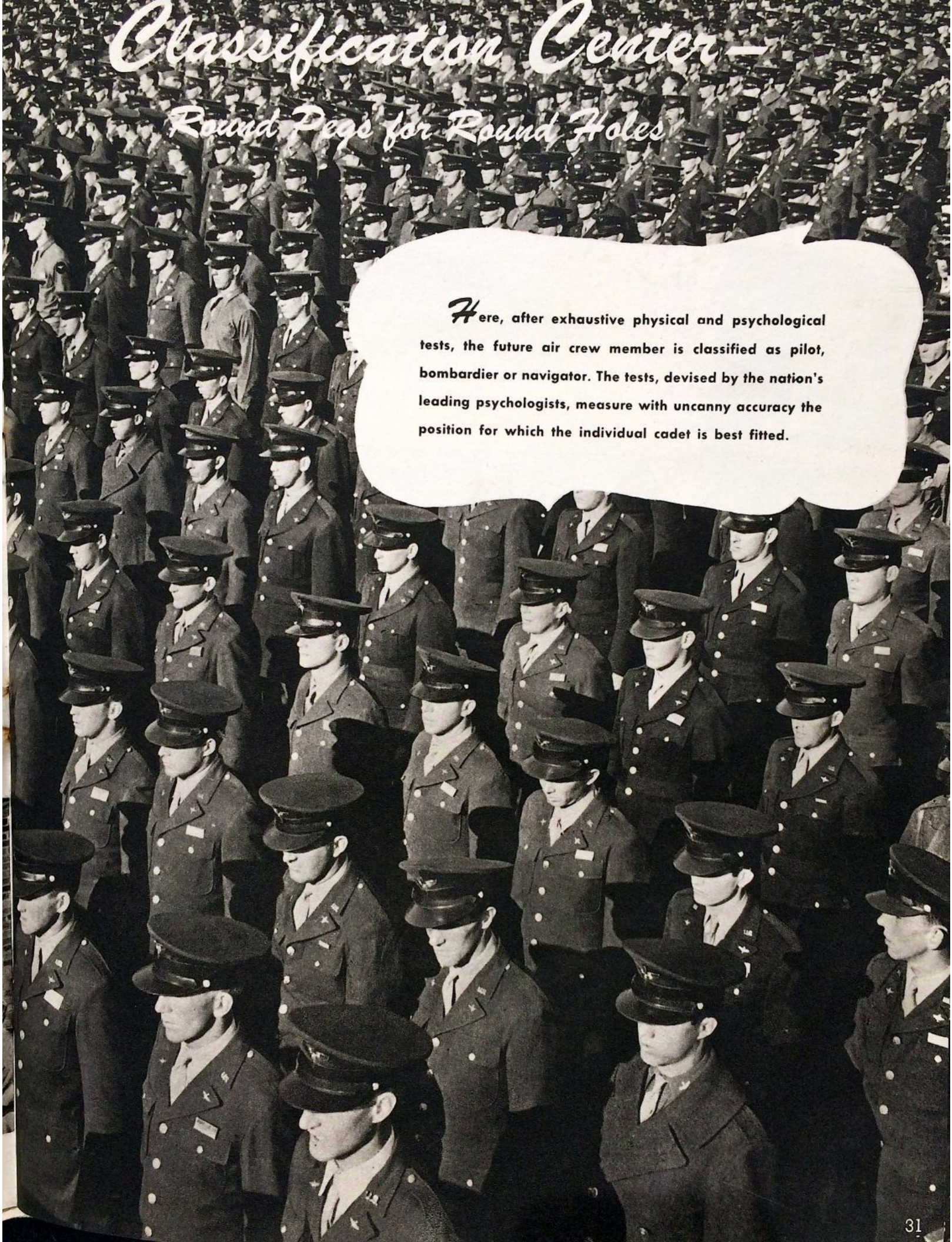
Obstacle course.



Mail call.

Classification Center—

Round Pegs for Round Holes



Here, after exhaustive physical and psychological tests, the future air crew member is classified as pilot, bombardier or navigator. The tests, devised by the nation's leading psychologists, measure with uncanny accuracy the position for which the individual cadet is best fitted.

Arrival at classification center.



Aviation cadet badge.



Nice fit.



Clothing issue.



Every item is checked.



Pull visor well down.



Cadets sign for everything.



Completely outfitted.



"Let's shorten them just a bit."



"How's that for size?"



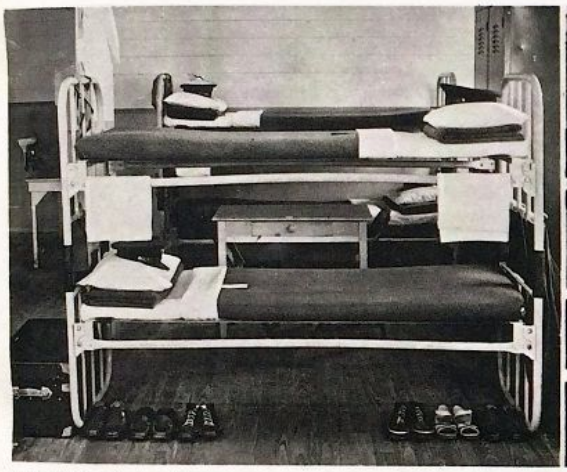
Barracks are spotless.



Orientation lecture.



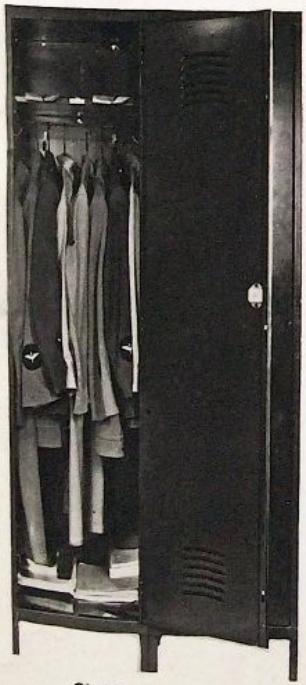
Personal history.



Ready for inspection.



He got by unscathed.



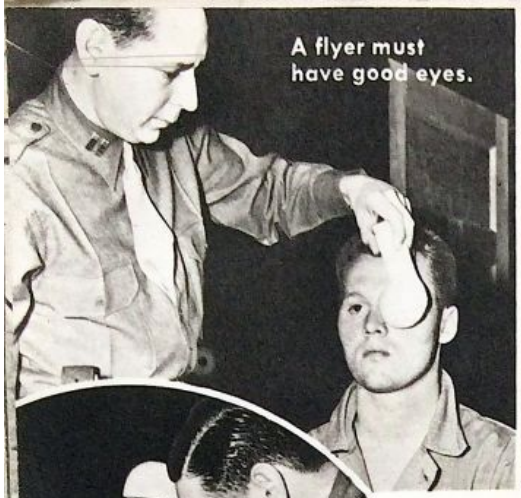
Clothes locker.

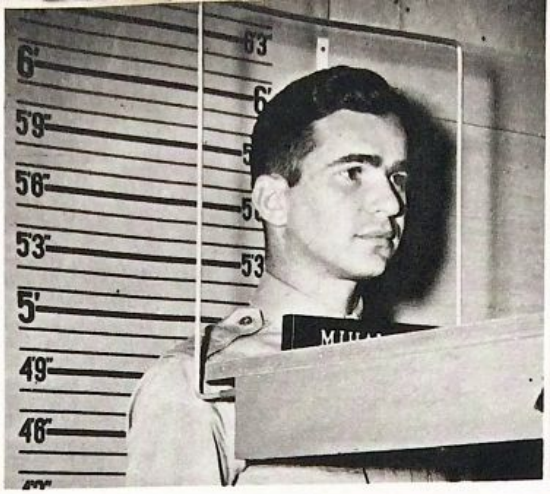


Before.



After.





A photograph for the record.



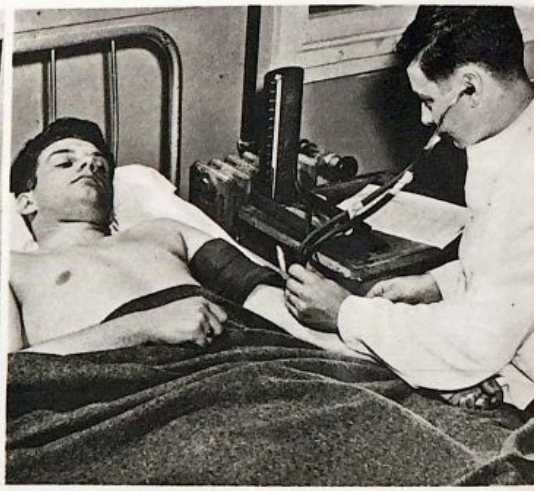
Blood test.



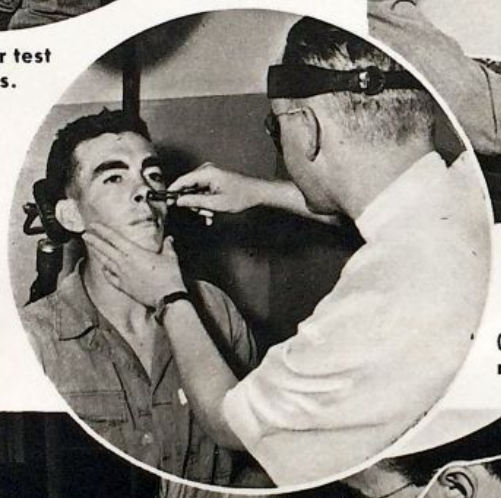
Phorometer test
for the eyes.



Chest X-ray plate.



Blood pressure is taken.



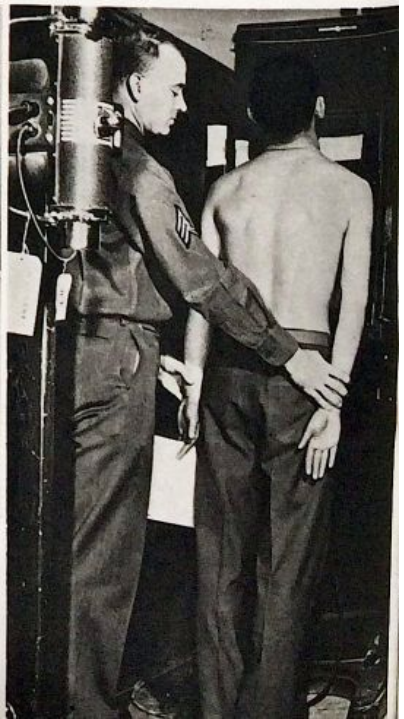
(Left) Nasal passages
must be unobstructed.



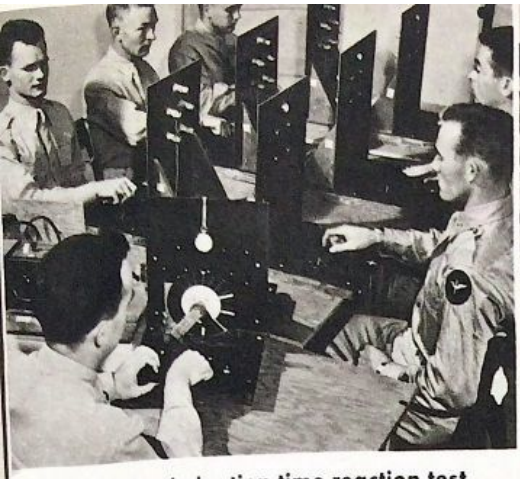
Corrective surgery eliminates minor defects.



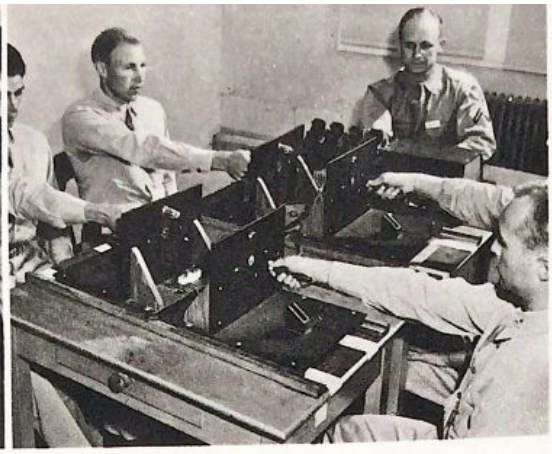
Shot in the arm.



Ready for an X-ray.



Discrimination time reaction test.



Steadiness test.



Rotary pursuit meter.



Pencil and paper tests.



Finger dexterity test.



SAM complex coordinator.



Two-hand coordination test.



Code.

Pre-Flight School

"Look Proud, Mister!"



Introduction to Pre-flight.

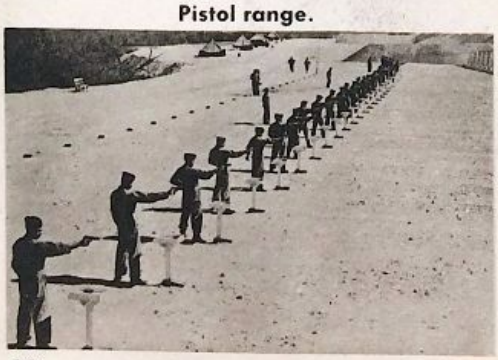


(Below) Ramrod at work.



At pre-flight the future pilot, bombardier or navigator gets thoroughly conditioned, mentally and physically, for the arduous months of flight training which lie ahead. In classrooms he studies code, navigation and weather, and also goes through a strenuous course of physical training which fits him to lick his weight in wildcats.

Pistol range.

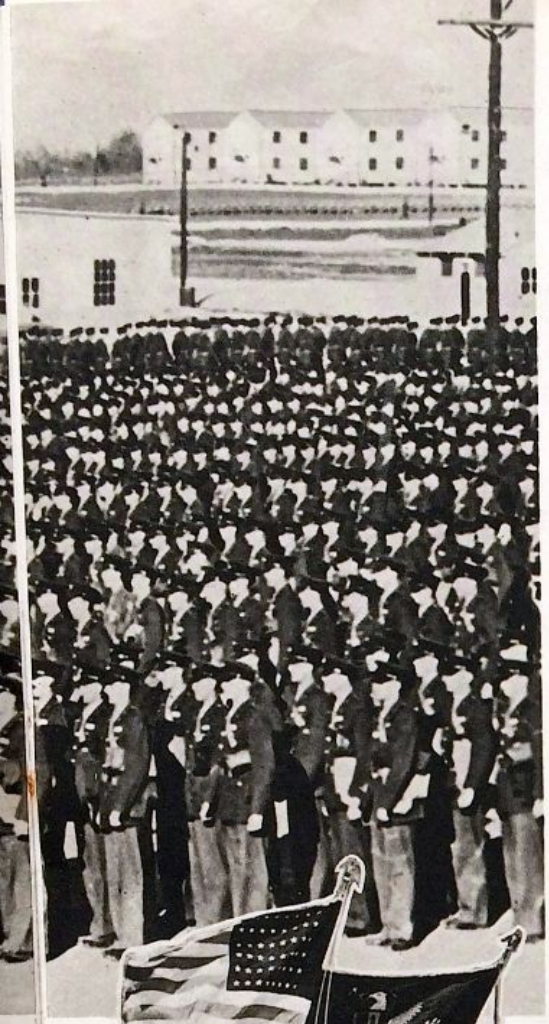


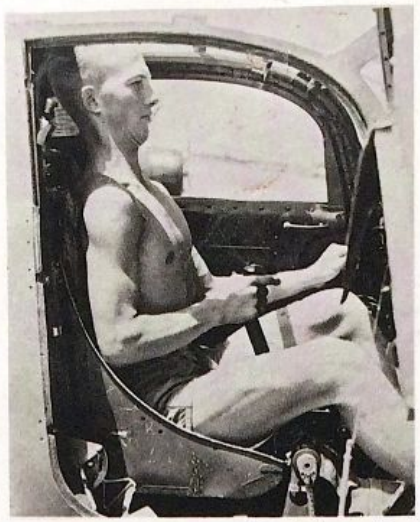
Machine gun demonstration.



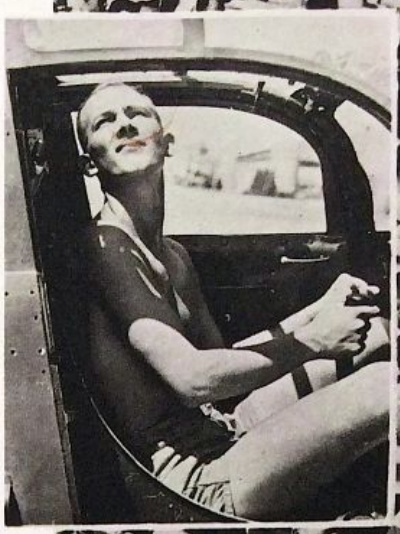
Manual of arms.







Pilot needs powerful pelvic and neck muscles.





Calisthenics.

Obstacle course.





Cadet color guard.

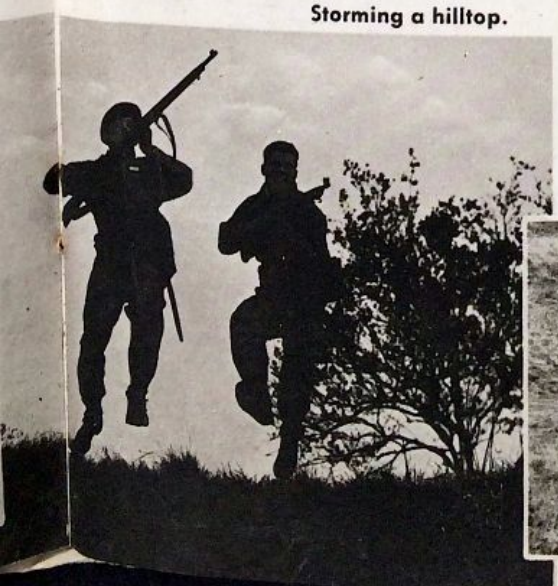


Chinning exercises.



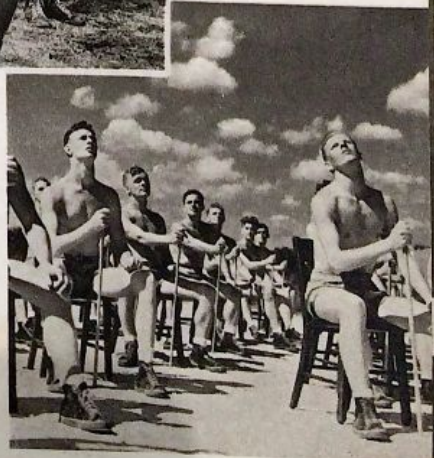
Neck muscles are developed.

Storming a hilltop.



Extended order drill.



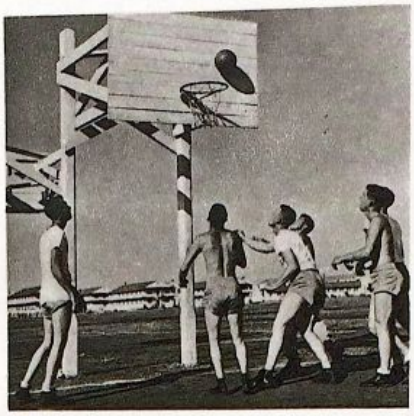




Wall scaling on the steeplechase course.



Over the wall.



Outdoor basketball.



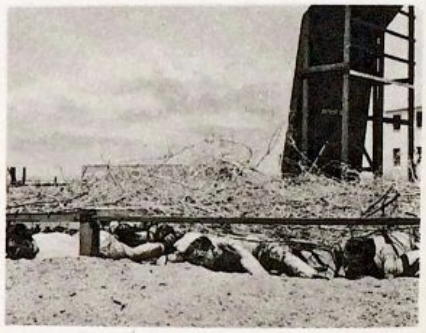
Judo.



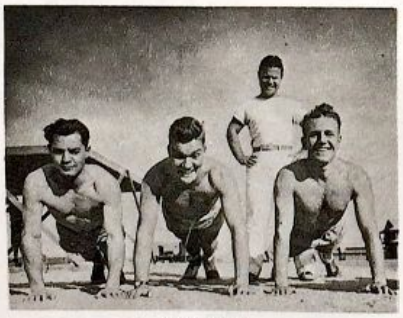
Obstacle course.



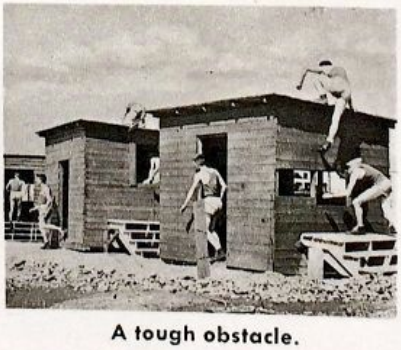
How to disarm a Jap.



Taking cover.



Pushups.



A tough obstacle.



Softball.

Mess hall.





Physical training class

Primary School—"Mister, That's an Airplane"

After eight hours of dual instruction, with a skillful civilian instructor ever ready to correct faults and give advice, the cadet gets into his airplane, starts the motor, taxis to the leeward side of the field, turns around, gives her the gun, and solos. Later he learns acrobatics, traffic patterns, stages, and other lore which put him well on the road to becoming a pilot.





Cadets march to flight line in formation.

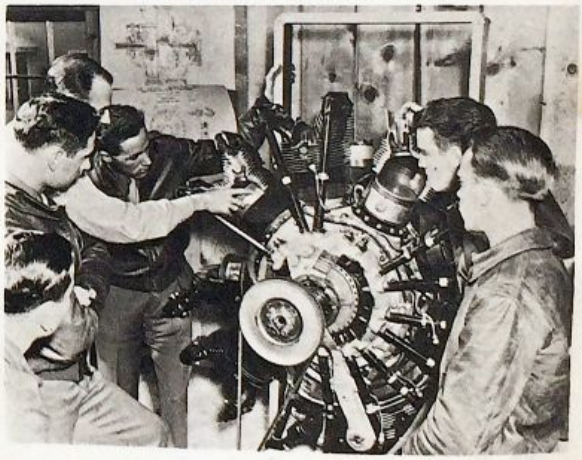


Winter flying garb.

Pilots must know their motors.



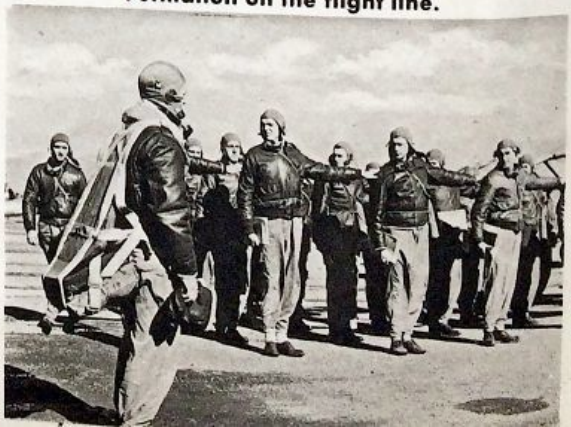
Radial engine demonstration.



Weather class.



Formation on the flight line.





Vertical bank.



"Straigh and level."



PT-19 on flight line.





Take-off.

"Easy, isn't it?"



Coming into traffic.



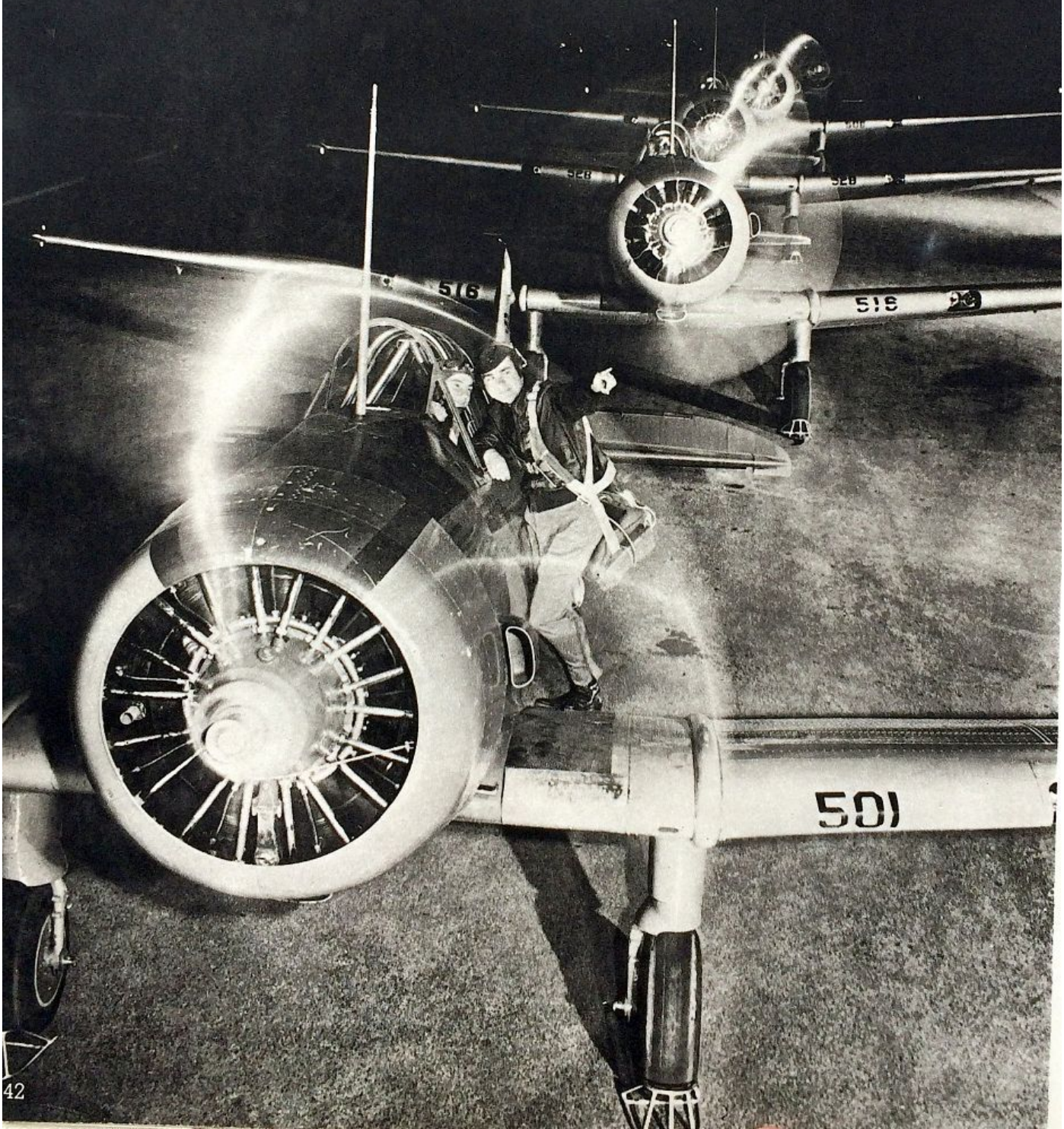
Critique.

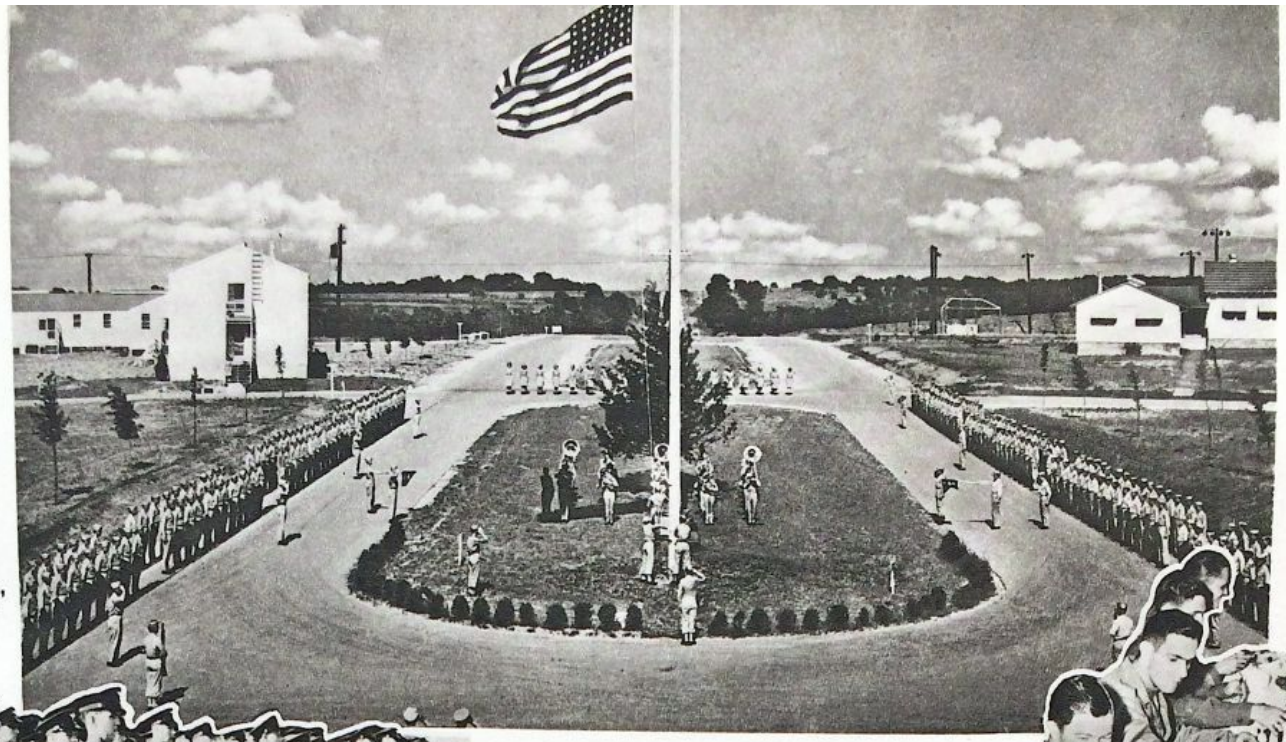


That's all for today.

Basic — The Fledgling Becomes a Flyer

In primary the cadet learned to fly — to get off the ground, back down again, to fly straight and level. In basic training, at the controls of a heavy 450 horsepower airplane, he becomes a precision pilot. He flies formation, goes on cross country flights, learns to fly at night, with continuous emphasis on accurate precision flying. At the conclusion of basic it is decided whether he will go into pursuit or bombardment.





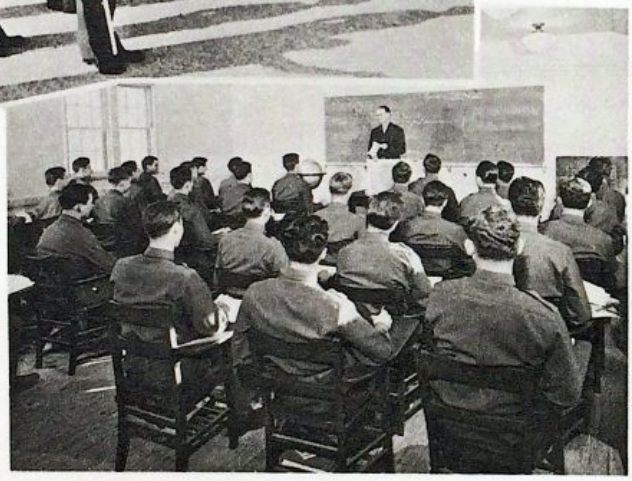
"Retreat."



Cadet review.



Flying makes good appetites.



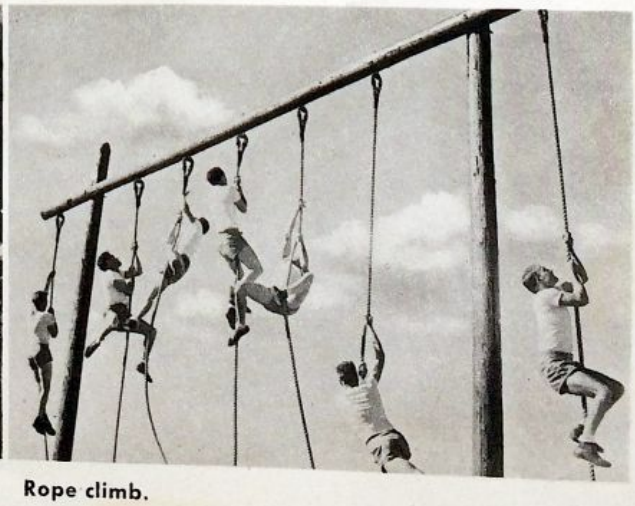
Ground school.



Cadets march everywhere.



Pre-flight lesson.



Rope climb.



BT's in formation.



Away they roar.

Cross country.



Ready for night take-off.







Link Trainer class.



Two ship tactical formation.



Coming back to the ramp.



"Eye on the leader."

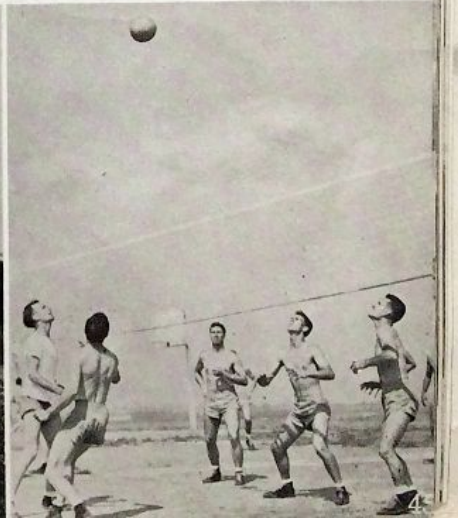
No "A" card necessary.



Skeet shot.



Volley ball.



Advanced—The Last Step Toward Wings

At advanced single engine school, the pursuit pilot becomes a killer. He learns to use his airplane as a mobile gun platform which deals death and destruction to ground and aerial targets. The embryo bomber pilot is initiated into the mysteries of twin engine operation, looking toward the day when he will guide multimotored giants in combat theaters throughout the globe.





Outdoor code class.



Plane dispatcher works out of doors.



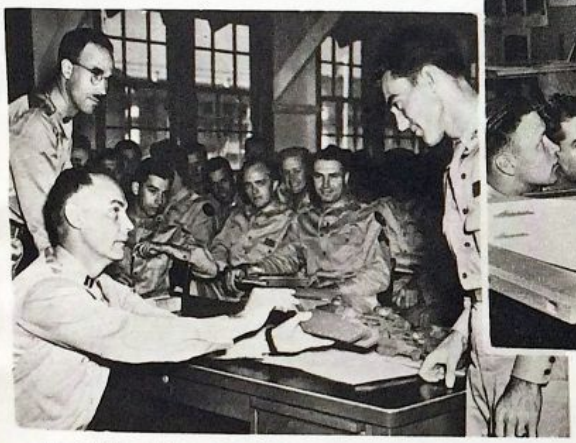
Navigation problem.



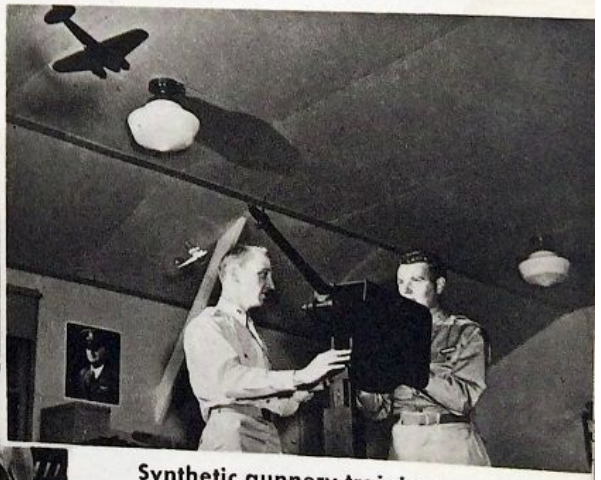
Ship identification.



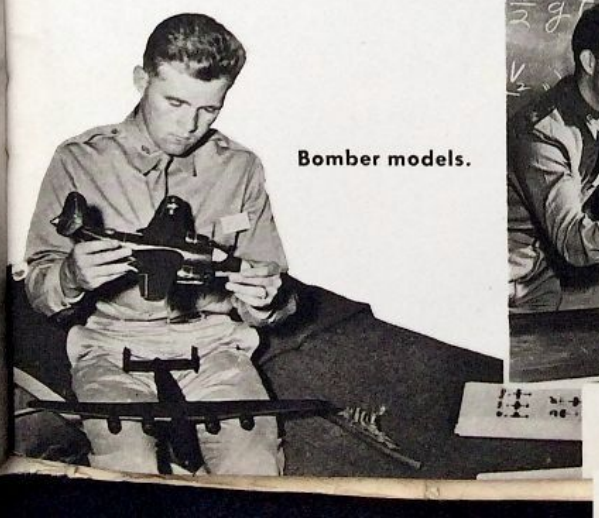
Attack on Jap fleet.



Tank identification class.



Synthetic gunnery training.



Bomber models.



Newton's law.

Combat approach toward tow target.

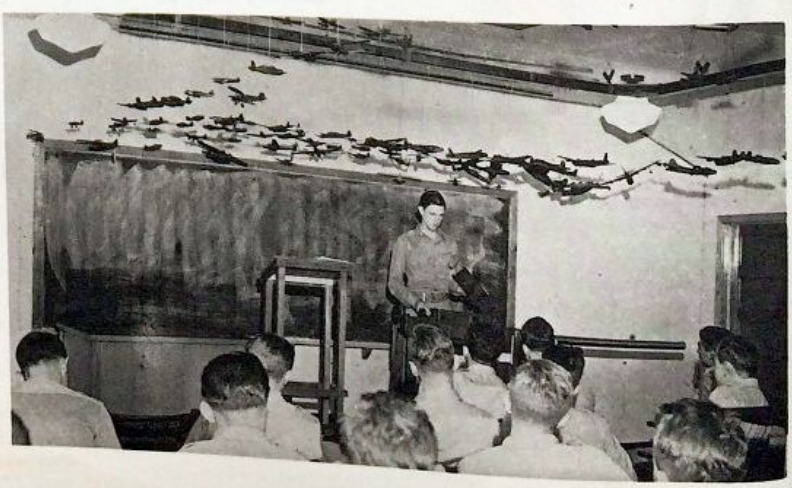


Principles of deflection shooting.

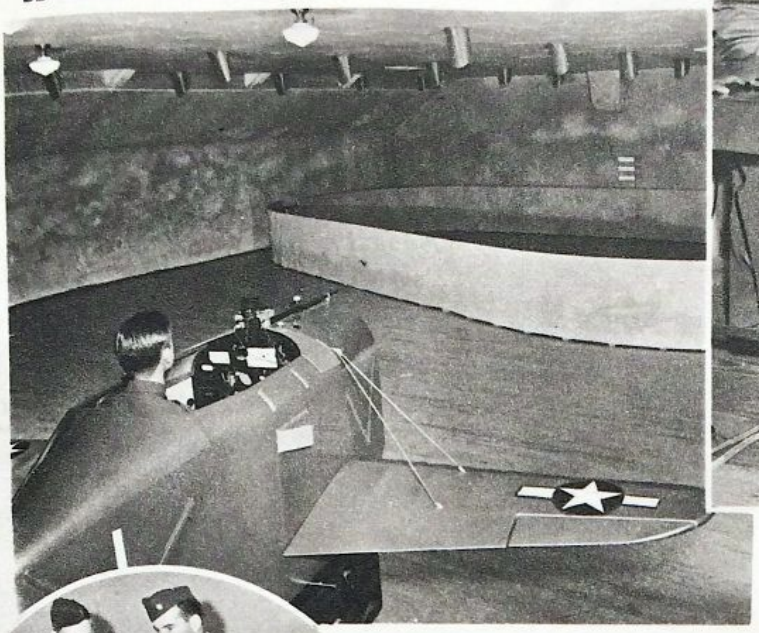
Field stripping a machine gun.

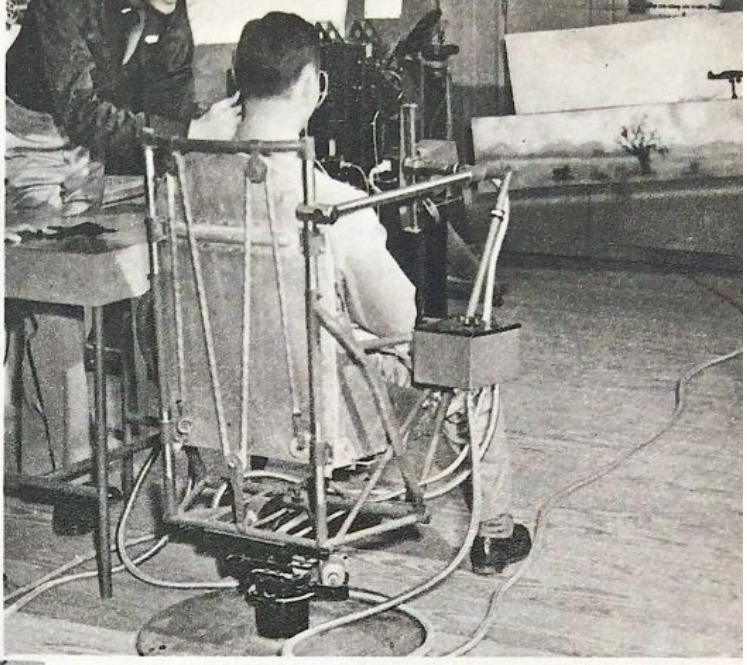


Final phase of ground school.



BB Link Trainer teaches lead.





Another method of teaching deflection shooting.



BB Link is popular with cadets.

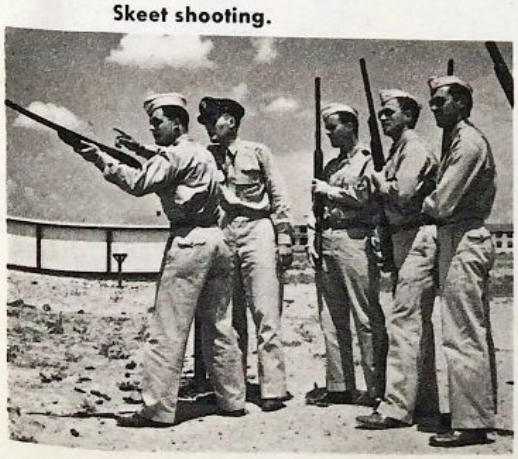


Ground strafing.



(Left) Loading camera film.

Skeet shooting.



Counting up the score on a tow target.





Bull's eye on ground target.

FORMATION



Preparing for night flight.



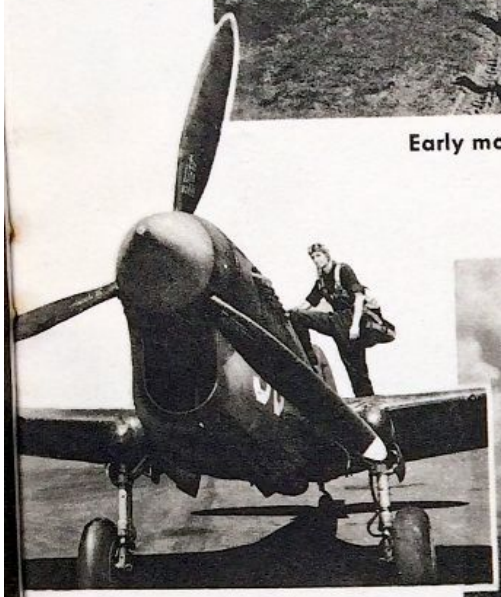
Above the clouds.



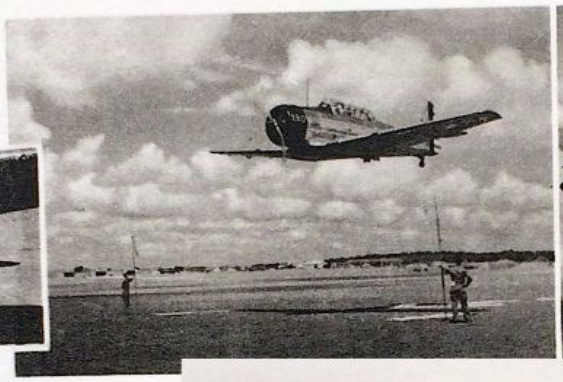
Early morning take-off.



Ready for a night cross-country.



P-40 transition.



Hurdle stage



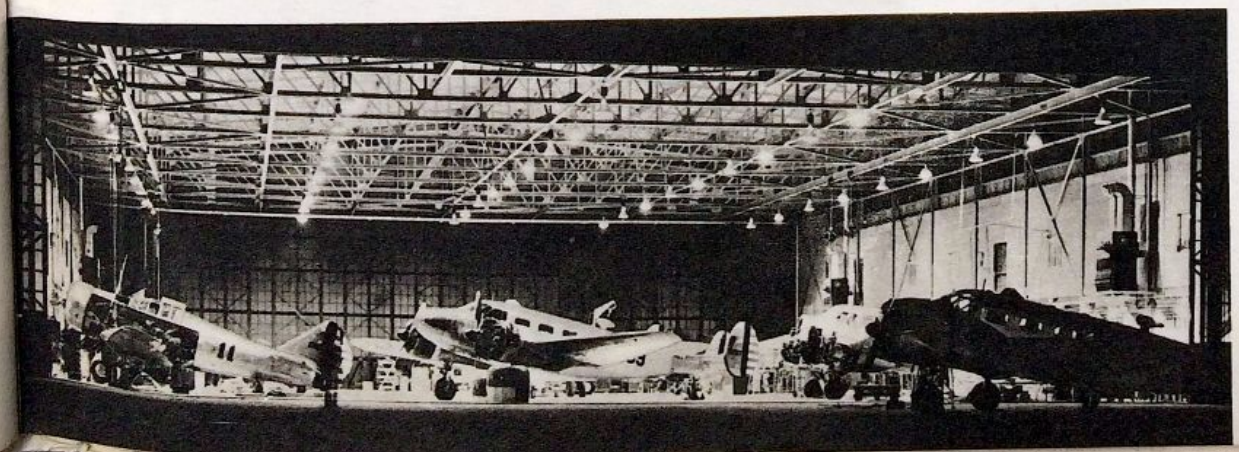
light.



Twin-engine trainer.



"Fill her up."



Night maintenance.



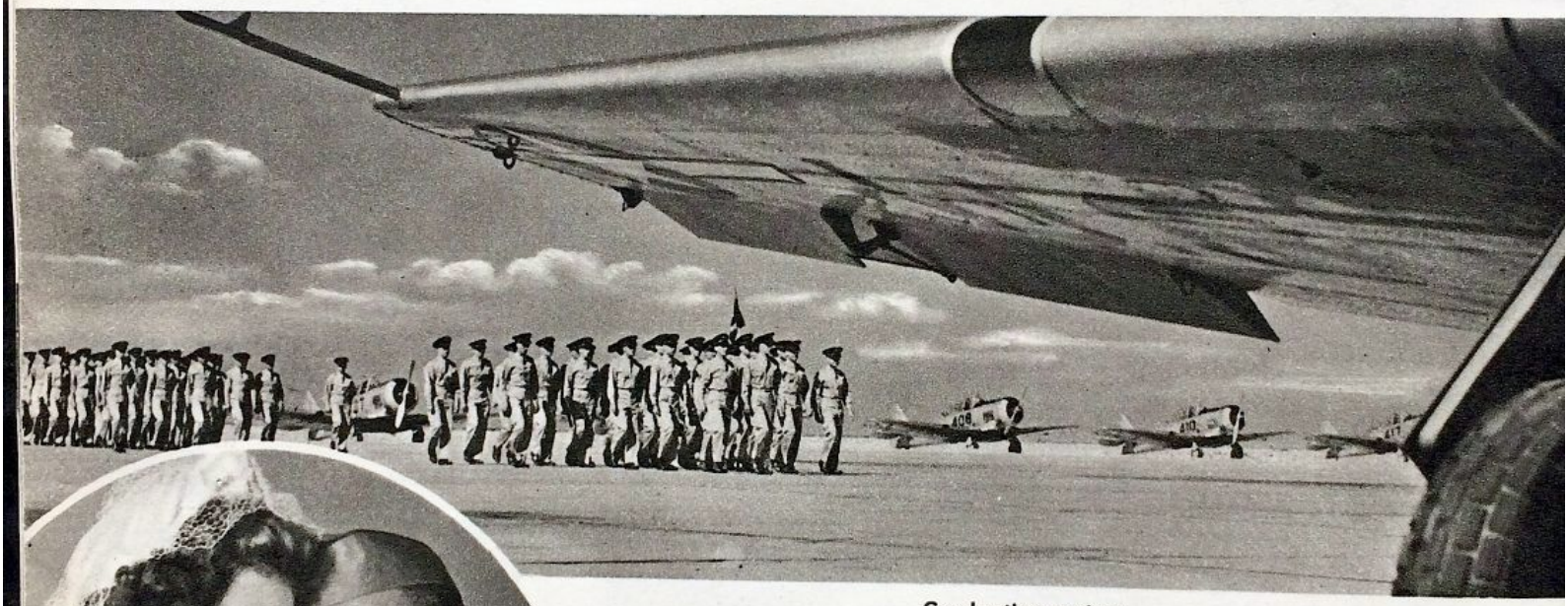
Precise military formation.



Belts of bullets.



Twin-engine cockpit check.



Graduation review.



"Wings at last."



Cadet receives commission from Commanding Officer.

Transition — He Flies the Big Stuff

On graduating from twin engine advanced, the young officer, proudly wearing his new wings, reports to transition school, where, for nine weeks, he masters the mysteries of the *B-25*, the *B-26*, the *Fortress*, or the *Liberator*. He becomes familiar with all the complicated emergency procedures which will enable him to bring his bomber home safely after it has been crippled over enemy territory, and goes on thousand mile navigation missions to every corner of the nation.





Studying combat reports.

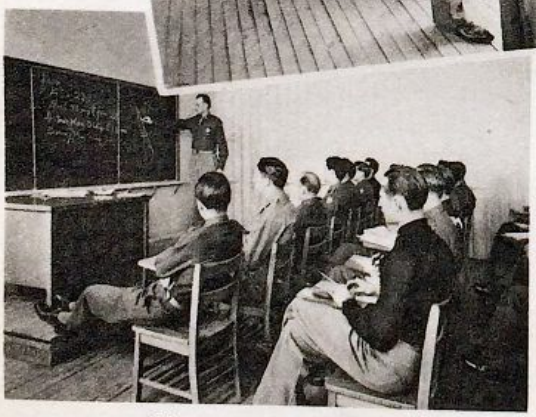


(Above) Reporting for duty.



"Anything new?"





Classroom for officers.

Planning a cross-country.





Blueprint demonstration.

(Below) Radio mockup.



(Below) Aircraft identification.





Bomb bay doors.



Formation.



At the controls of the Link.



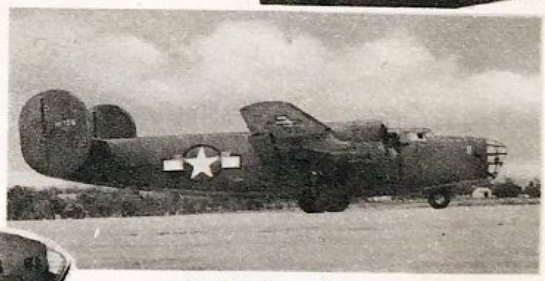
B-17 ready to go.



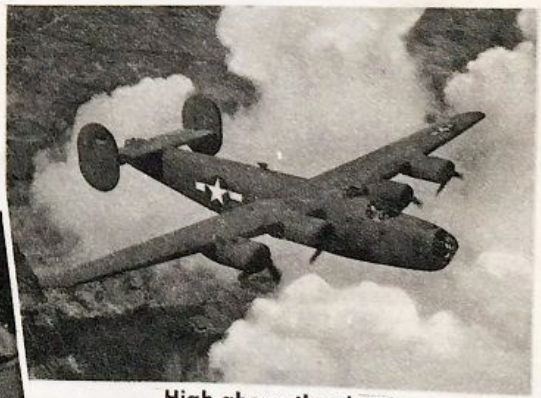
Navigation mission.



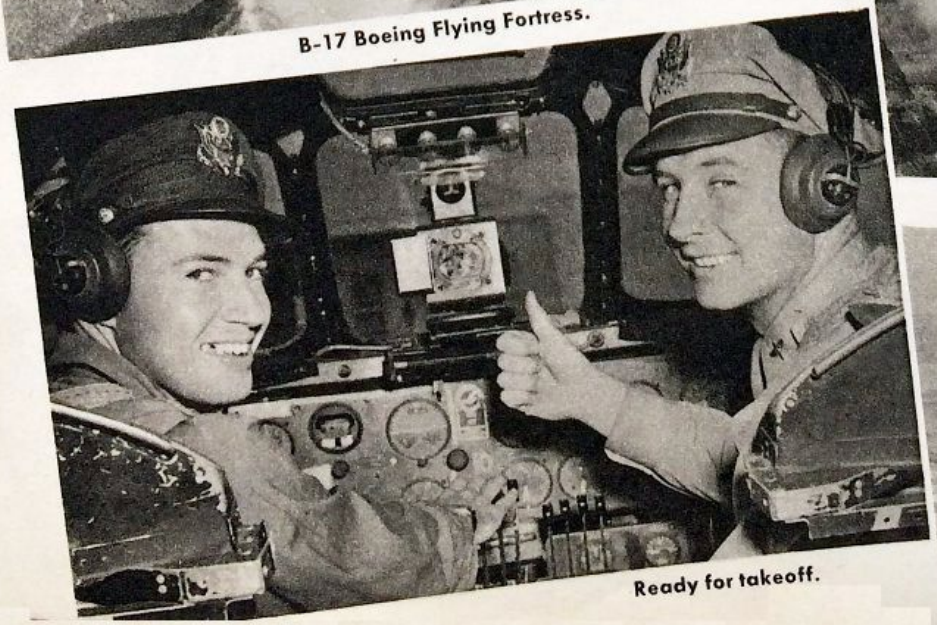
B-17 Boeing Flying Fortress.



B-24 take-off.



High above the clouds.



Ready for takeoff.



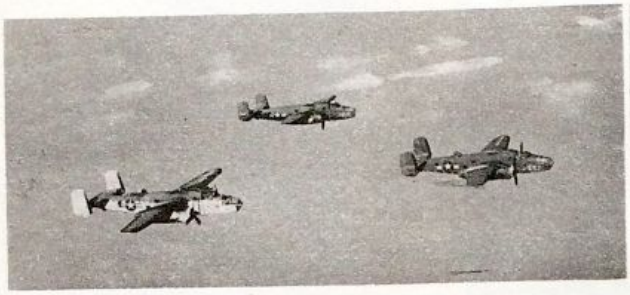
Landing approach.



B-25 over the water.



Over the mountains.



Three ship formation.



B-25 cross-country.



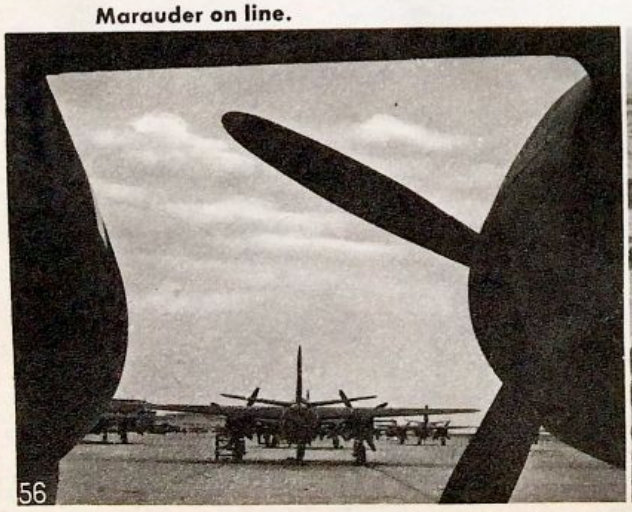


"Clear."



Student officer team.

Marauder on line.





B-26 hits 250 m.p.h.

Bombardiers — They Lay Their Eggs in One Basket



In the final analysis, the success or failure of a bombing mission depends on the bombardier. The mission goes for naught if his bombs fail to hit his target on the nose. At the great bombardier schools of the Training Command the reaction time of the cadet is speeded to calculator quickness as he drops hundreds of practice bombs, with the aid of his sight, on day and night missions. Reports from combat theaters attest the uncanny accuracy which the bombardier cadet develops through his rigorous training.





Rows of practice bombs.



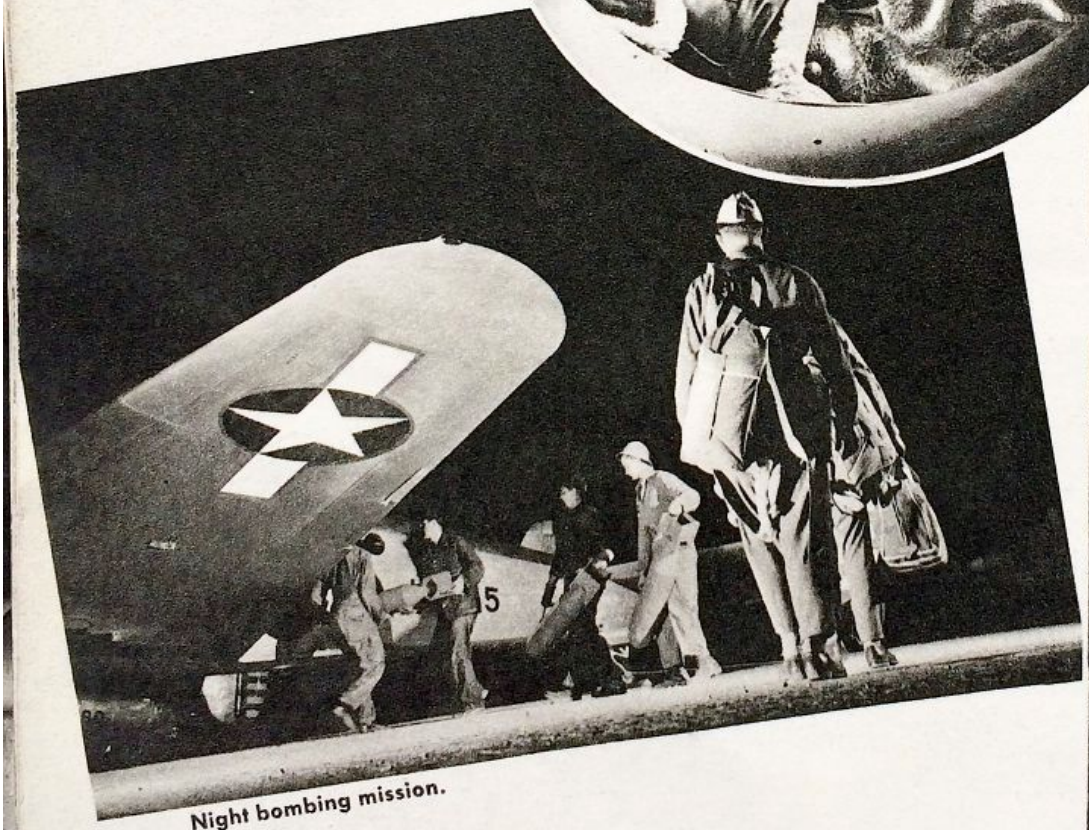
Bomb bay doors open.



Camera registers hits.



Bombsight installation.



Night bombing mission.



Safety belt.



Cadets check results with instructor.



Preparation for night mission.



Paper work.



In the greenhouse.



Cadets and bombs.



Observation from turret.



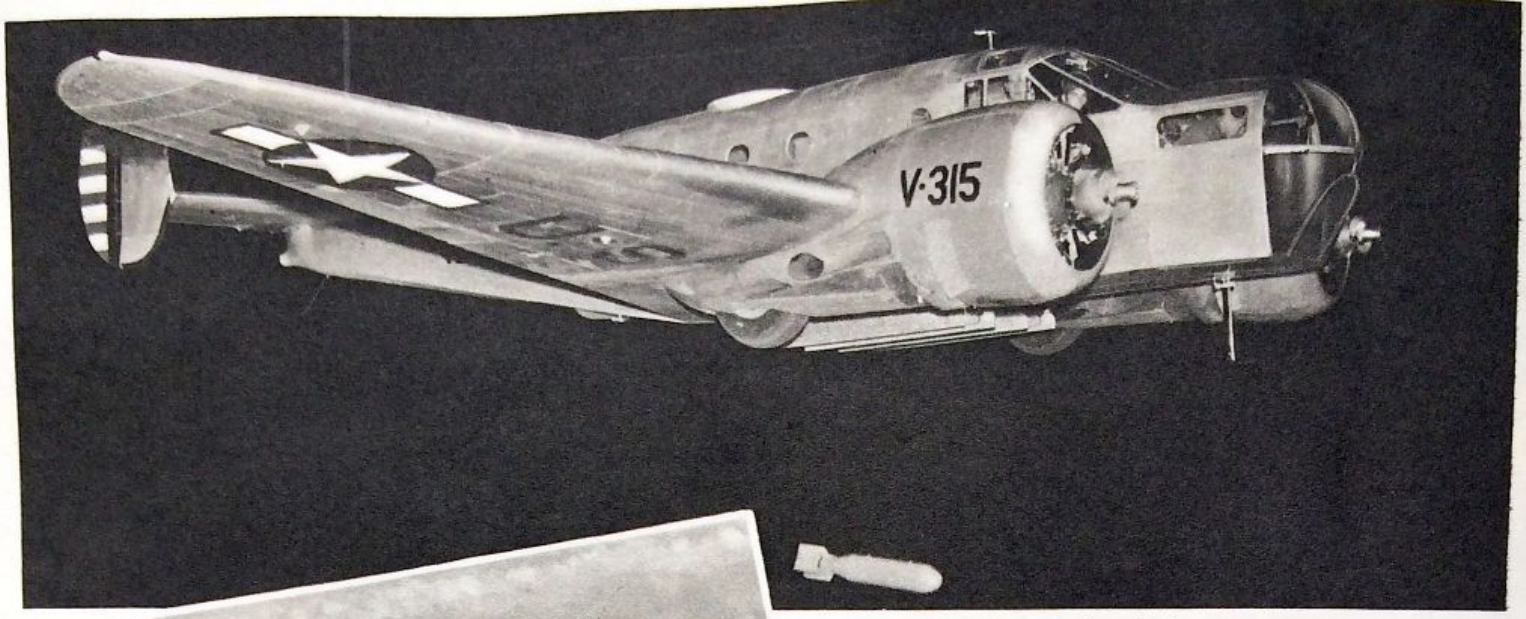
Cadets dive through oil.



Skeet.



"Bombardier to Pilot."



Night mission.



B-25 Mitchell bomber.



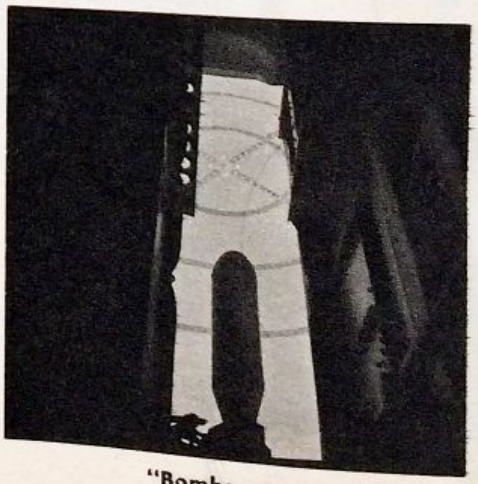
"Salvo."



Target approaching.



Bomber formation.



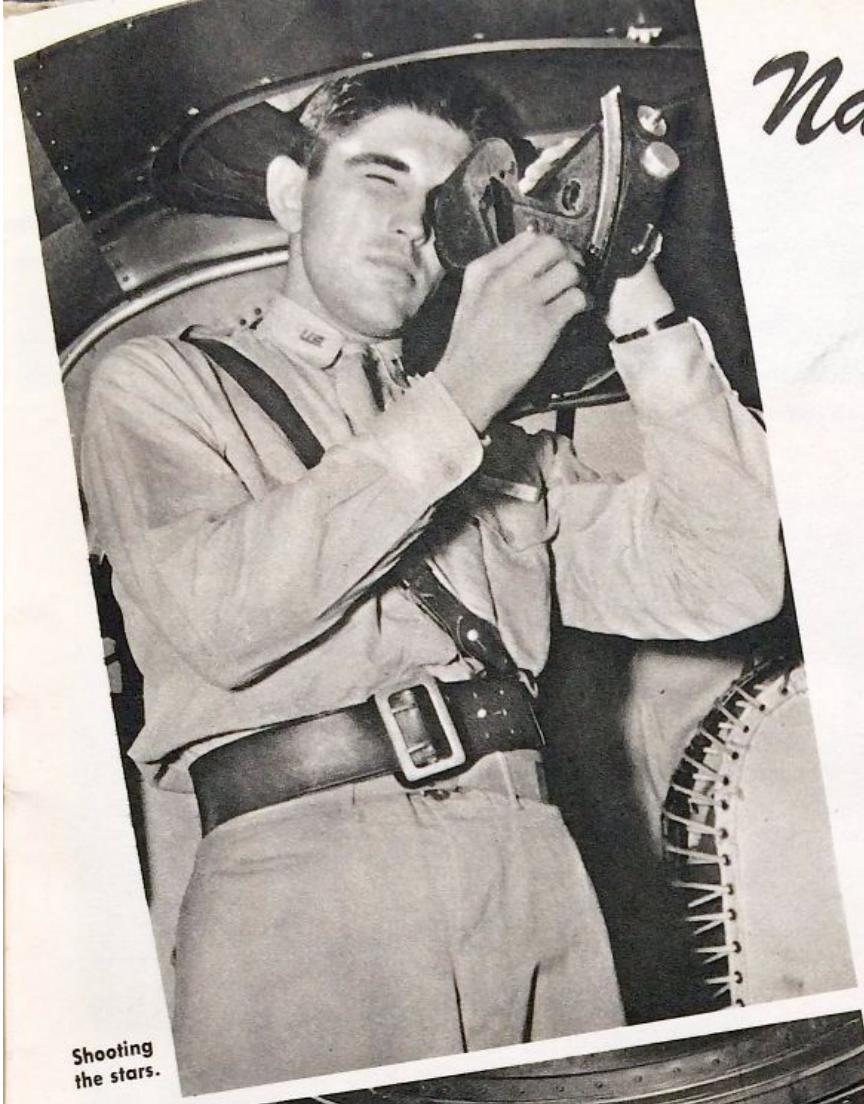
"Bombs away."



Bombing Trainer (AT-11).

Navigation — No Margin for Error

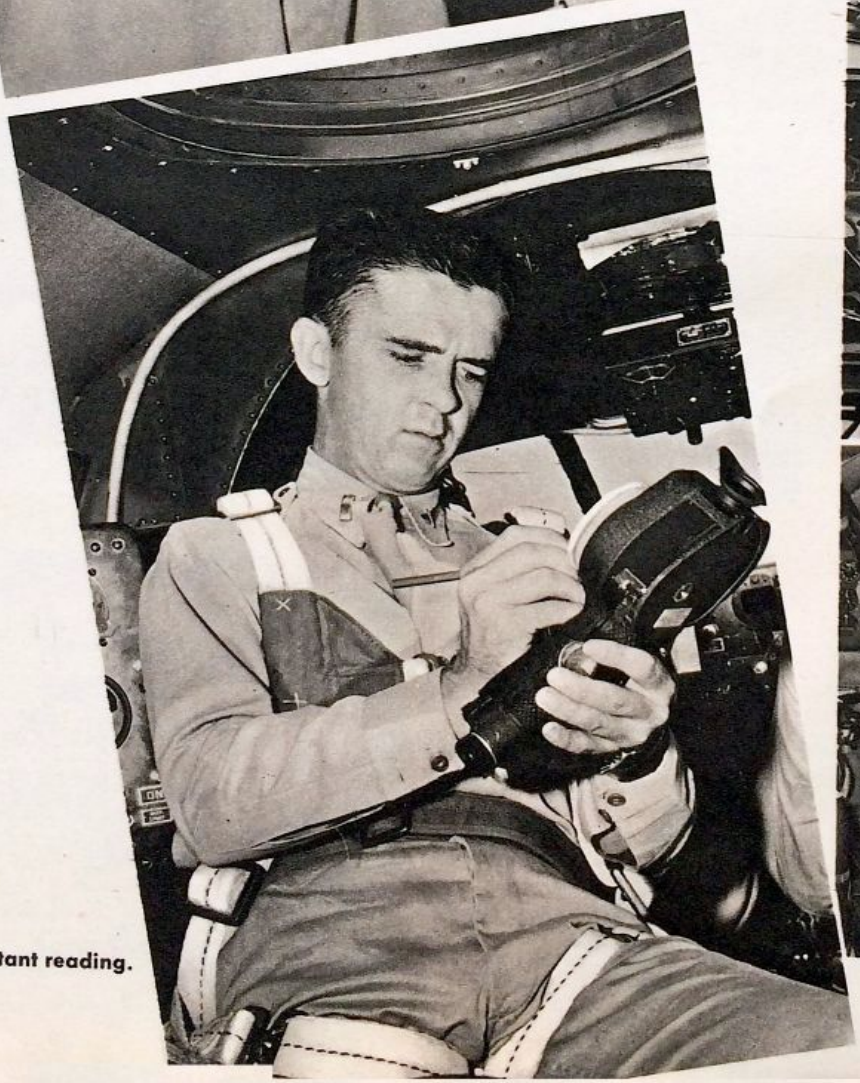
For eighteen weeks the would-be navigator becomes skilled in the four principal methods of navigation — pilotage, dead reckoning, radio and celestial. At the conclusion of his course, the cadet, using one or all of these methods, can guide his plane on a 500 mile mission within five miles of his objective and within 3½ minutes of his estimated time of arrival.



Shooting the stars.

Flying classroom.

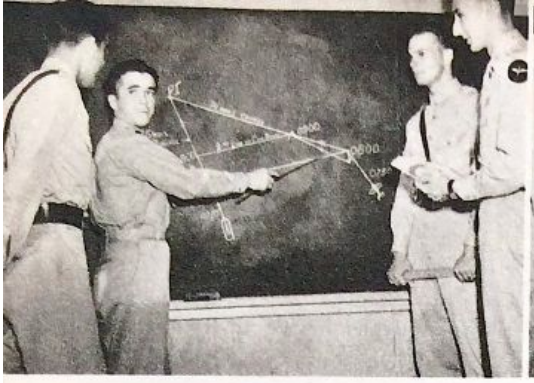




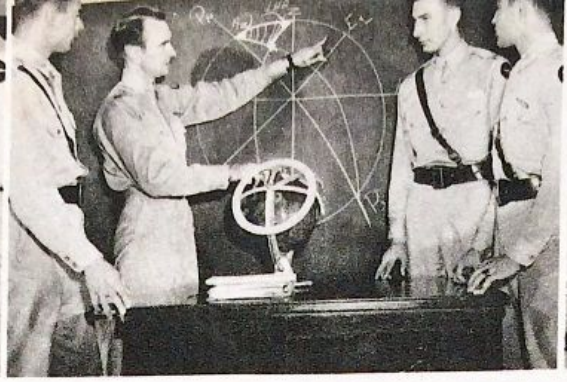
Taking a sextant reading.



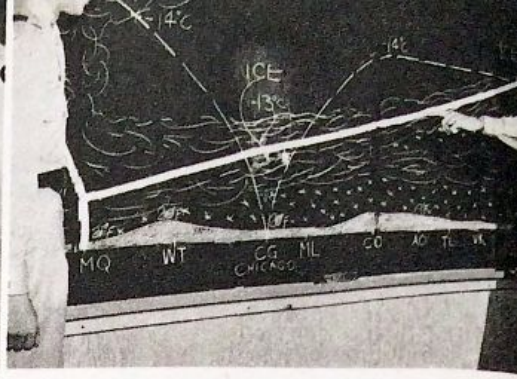
Checking the time.



Interception problem.



Class in celestial navigation.



Meteorology diagram.



The navigator's tools.



Model of Hagner Planetarium.



Navitrainer.

Instrument panel on Navitrainer.





Navigator's "hacks."



Synthetic computer.



Drift meter demonstrator.



Plotting a line of position.

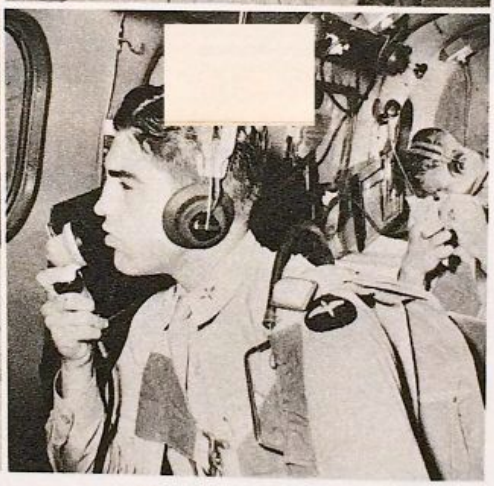




(Extreme left) Navigation cadet in flight.

(Left) Reading the aperiodic compass.





(Extreme left) Drift meter observation.

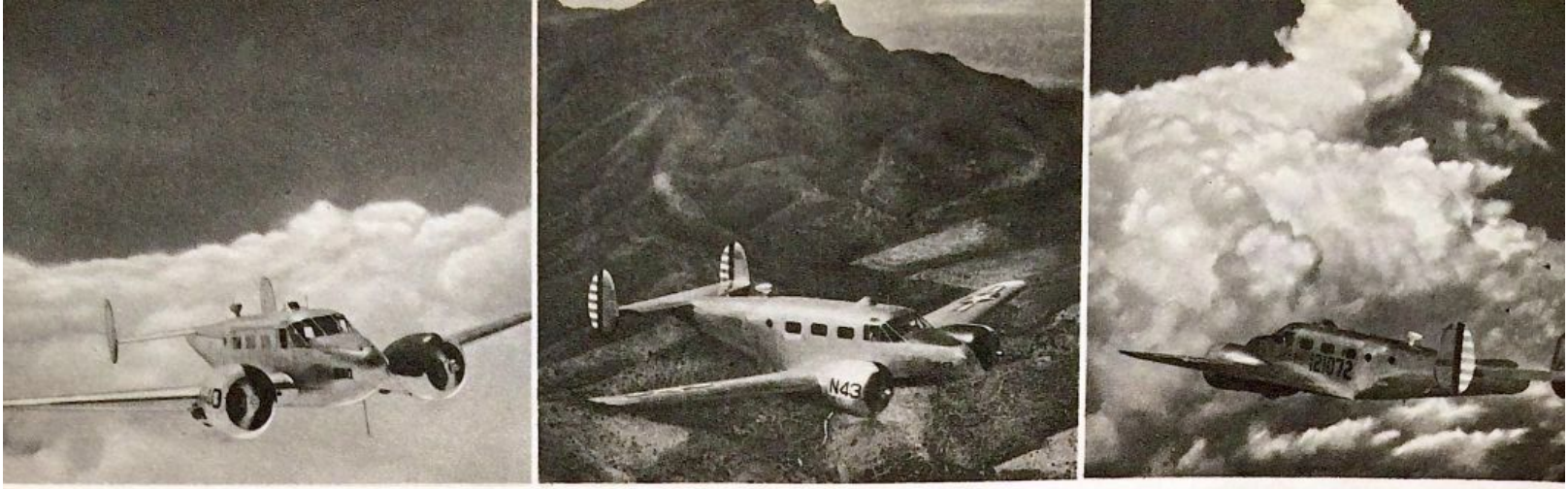
"Alter course 15 degrees."



Hacking the watches.



Cadet with sextant.



AT-7's on navigation missions.

Navigators "at ease."





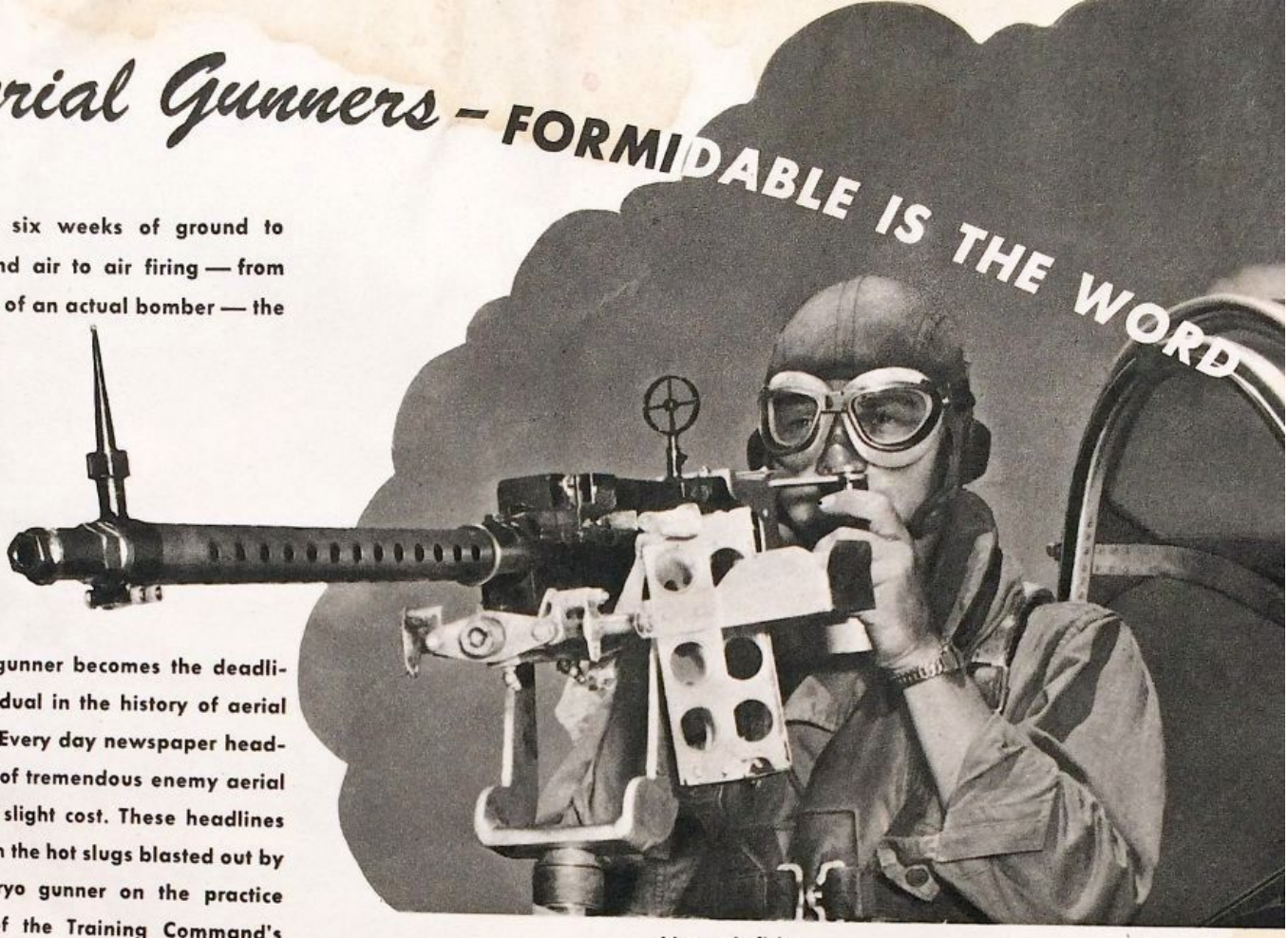
AT-18's carry navigators over clouds.



Graduation review.

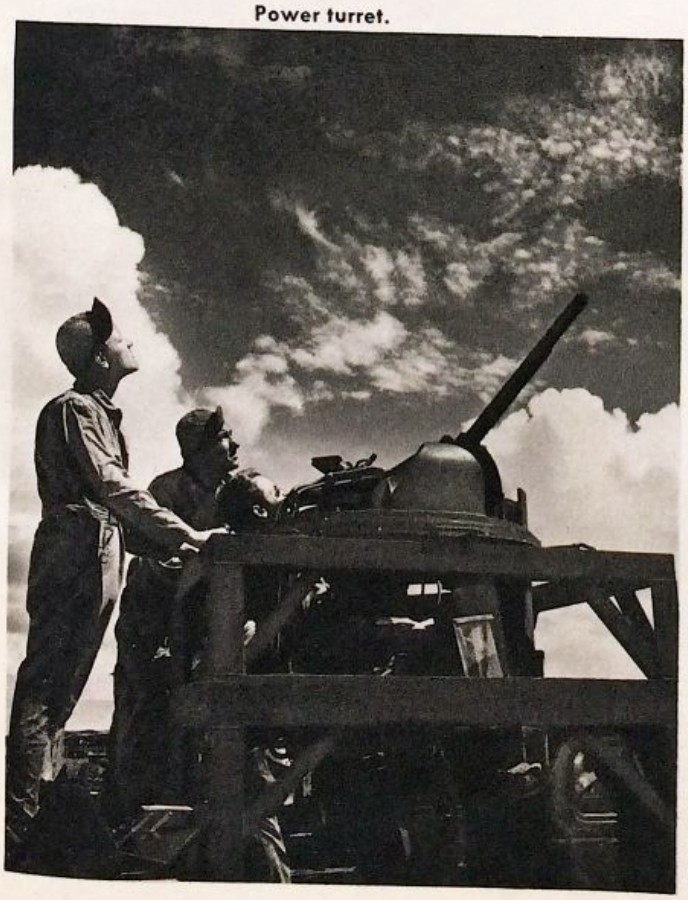
Aerial Gunners – FORMIDABLE IS THE WORD

After six weeks of ground to ground and air to air firing — from the turrets of an actual bomber — the enlisted gunner becomes the deadliest individual in the history of aerial warfare. Every day newspaper headlines tell of tremendous enemy aerial losses at slight cost. These headlines stem from the hot slugs blasted out by the embryo gunner on the practice ranges of the Training Command's gunnery schools.



Air to air firing.

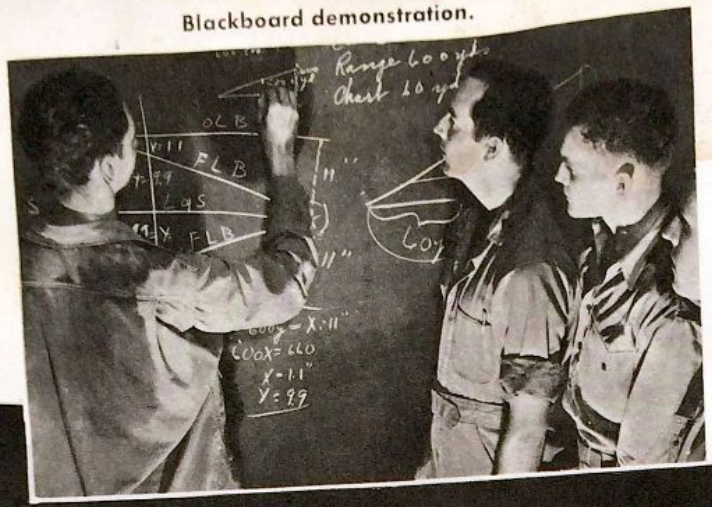
Power turret.

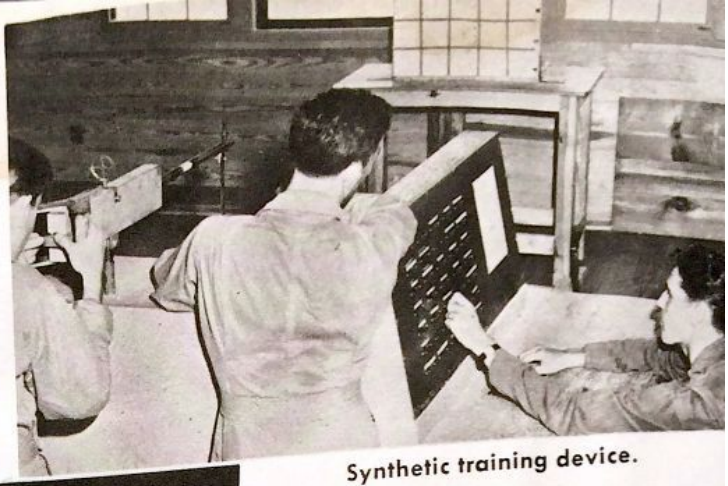


Tracers hitting at night.



Blackboard demonstration.

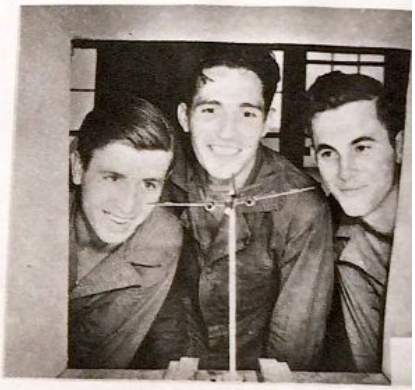




Synthetic training device.



Night firing on the range.



Range estimation trainer.



Target in bad shape.

Clay targets from movable base.

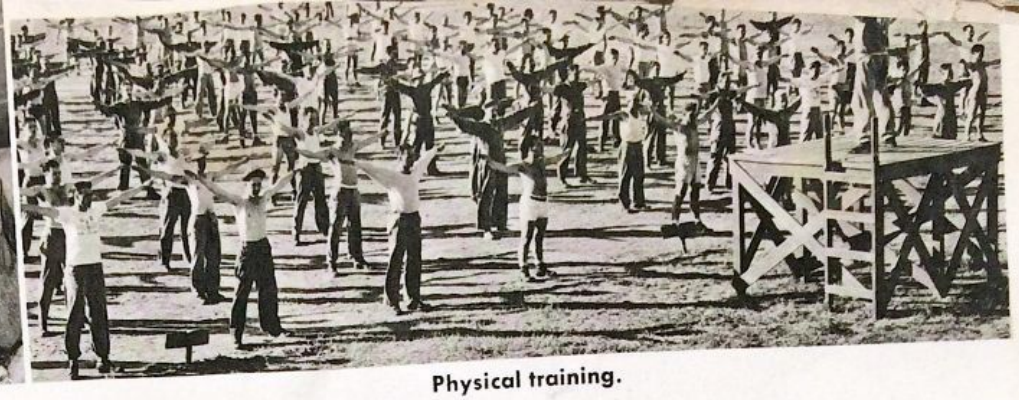




Drawing a bead.



Aircraft identification.



Physical training.



Power turret.



Blindfold assembly.



Tough customer.



Right into the target.



Malfunction range.



Row of power turrets.



Staff Sergeant's stripes.



Gunner's wedding.



Checking his gun before flight.

The Waller Trainer simulates every problem met by the flexible gunner. On its screen are flashed actual photographs of enemy planes approaching a bomber, and the gunner shoots at them with synthetic machine guns. Counters register the number of bullets he has fired and the number of hits he has made. The guns vibrate as he shoots, and he hears the noise of his "guns" through the earphones.



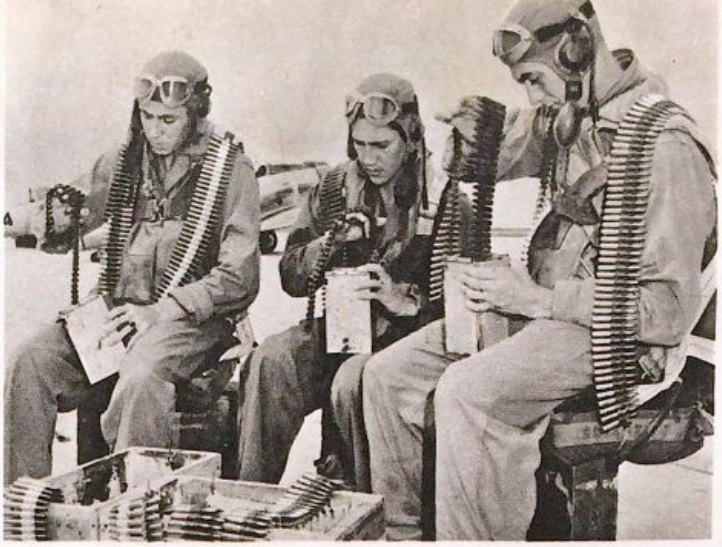
Tow targets rolled up.



Ready room.



Ammunition belts readied.



Filling ammunition boxes.



Returning from a mission.

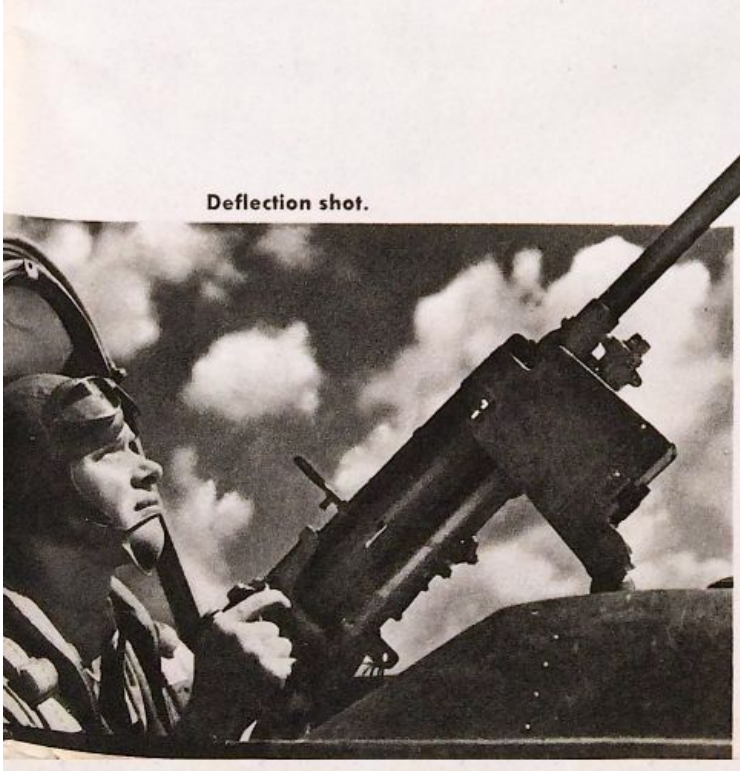


Gunner with wings.



General awards wings to gunner.

Deflection shot.





Three tough babies.

The Glider Pilot



Three basic type gliders in triple tow.



(Above) Three basic gliders towed over tree tops.

SILENT WINGS OF DEATH



Cockpit check in basic glider.

The invasion of Sicily demonstrated the use of the troop and cargo-carrying glider in disrupting enemy lines of communication. At the Training Command's advanced glider school, future pilots learn to fly their huge craft using the tactics they will soon employ on the fighting fronts.

Tow plane takes off with three charges.



Checking gliders as they land and take-off.





CG4A glider takes off behind C-47 tow plane.



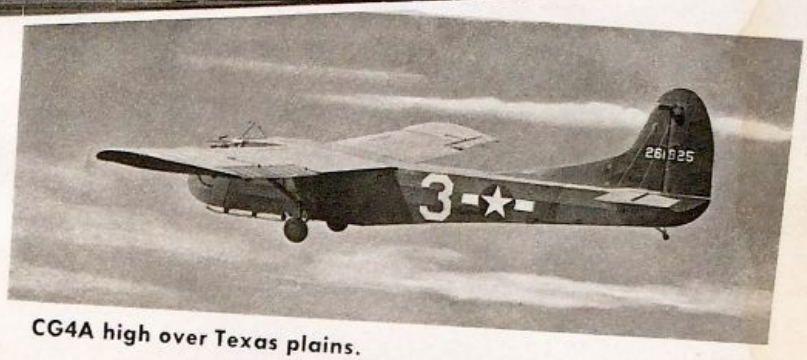
CG4A leaves ground.

15-place advance glider lands.





Basic glider in free flight.



CG4A high over Texas plains.



Tow rope adjusted on nose of CG4A.



Weather balloon release.



Basic glider skids to a halt.



Code class.



Wing assembly.



CG4A takes on full load.

The Wasps—

Women Pilots Play Their Part

In a five and one-half months course, women pilots destined for non-combatant duty within the continental United States learn to fly primary basic and advanced single and twin engine aircraft — the Army way. Already graduates of the school have released hundreds of male pilots for combat duty overseas.



Fifinella is WASP mascot.



Jacqueline Cochran is AAF WASP director.



Ready for some solo time.



Link Trainer analysis.

Mail call.





All set.



Graduation review.



Girls rival cadets in marching.



Wings for the lady.

Ground school.



Mess is welcome.



Engine maintenance.



"Hangar flying."

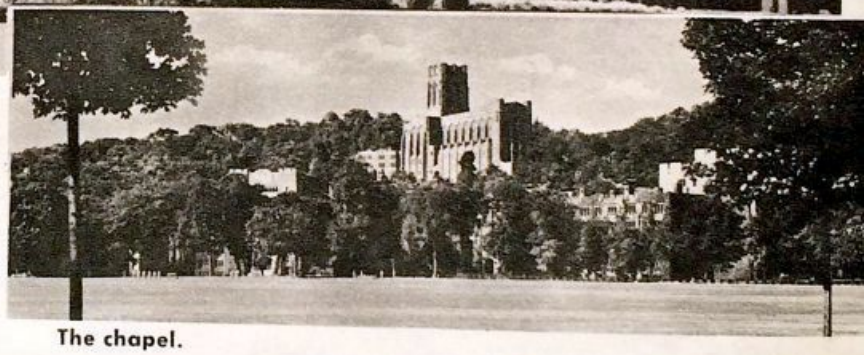


West Point — Future Generals Learn to Fly

At the United States Military Academy, West Point, N. Y., approximately 30 per cent of each class is receiving basic and advanced flying training after having had primary training at civilian contract schools of the Command. America's future generals are fully aware of the role of air power in overall military strategy.

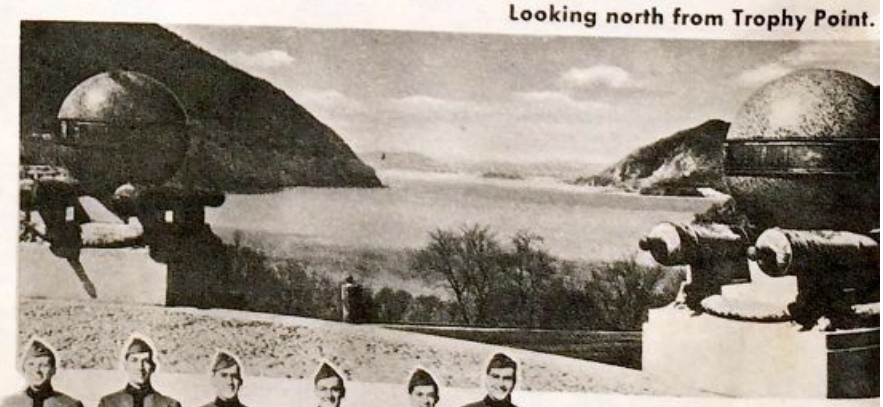


USMA Buildings viewed from the Hudson River.



The chapel.

Looking north from Trophy Point.

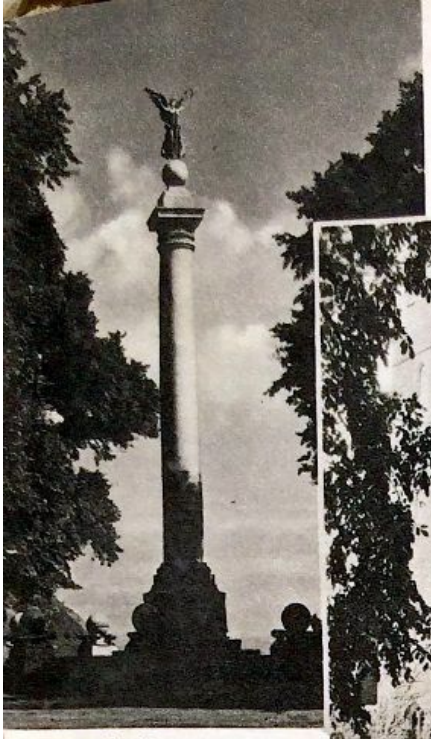




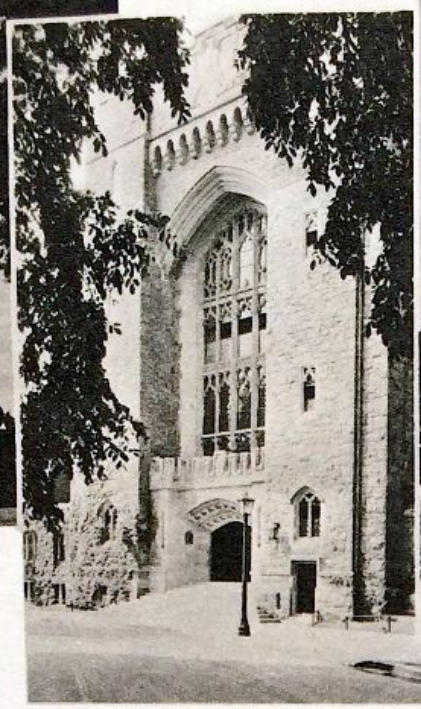
Cadets pass in review.



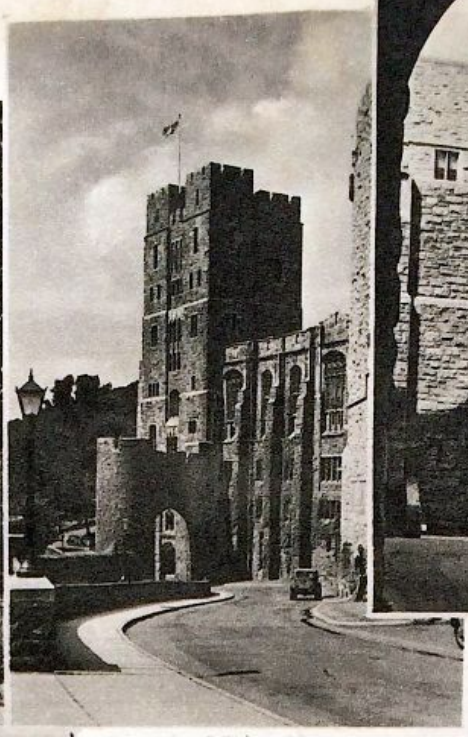
Cadets wear wings.



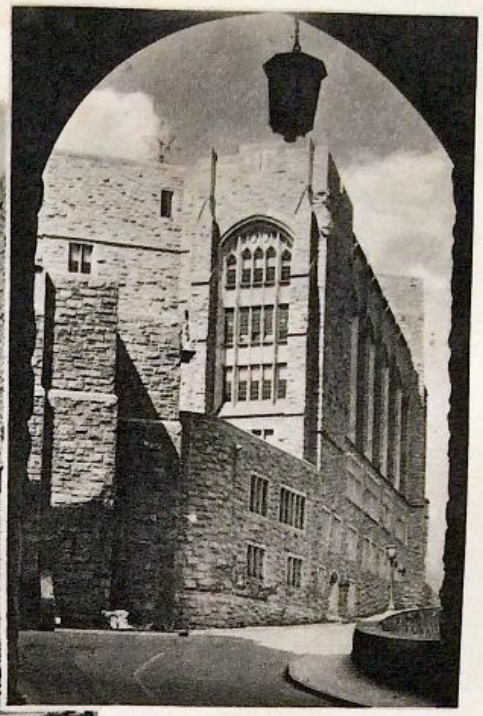
Battle Monument.



Mess Hall.



Administration Building.



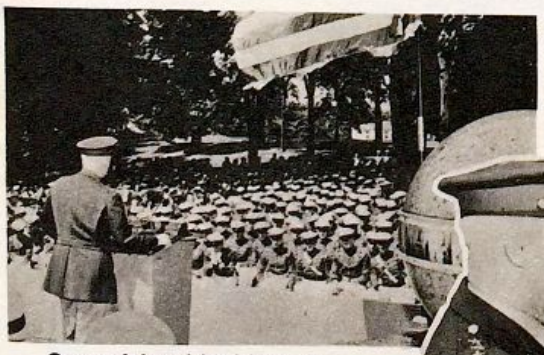
Riding Hall.



Basic trainers in formation.



Aerial review.



General Arnold addresses graduating class of cadets.



Wings from the Commanding General.

Tuskegee—Negro Pilots Are Among The World's Finest



Diving in formation.



Maintenance on the line.

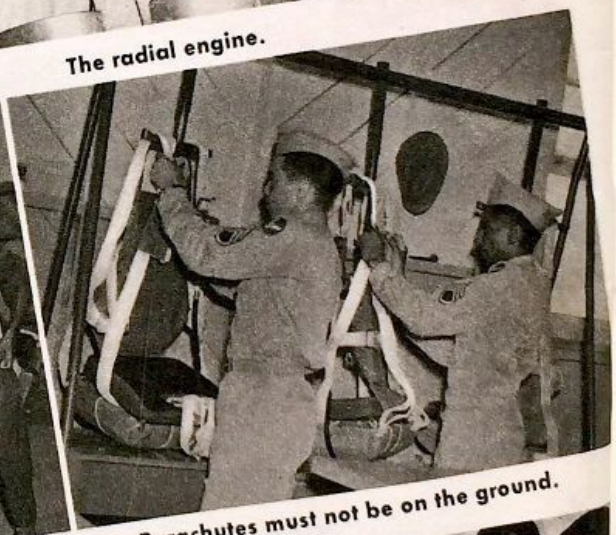


The radial engine.

At the school for Negro aviation cadets at Tuskegee, Alabama, hundreds of capable young Americans receive primary, basic and advanced training, and transition into tactical type aircraft. Already early graduates of the course have been organized into formidable combat units and have distinguished themselves against the enemy.



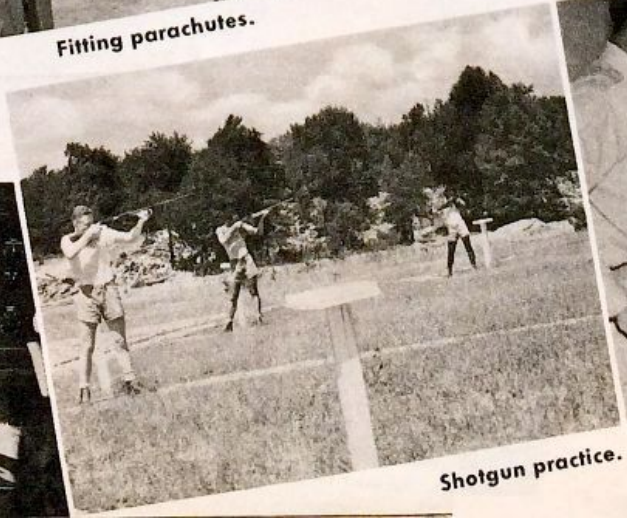
Fitting parachutes.



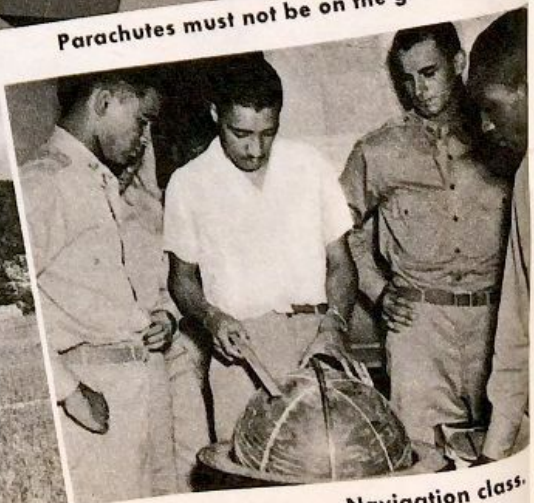
Parachutes must not be on the ground.



Radio.

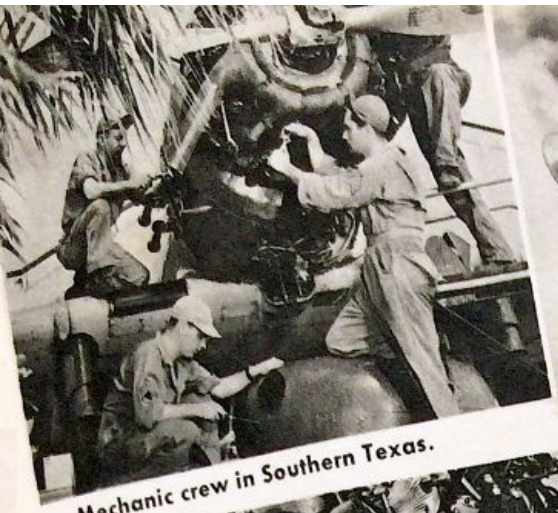


Shotgun practice.



Navigation class.

They Keep 'em Flying



Mechanic crew in Southern Texas.



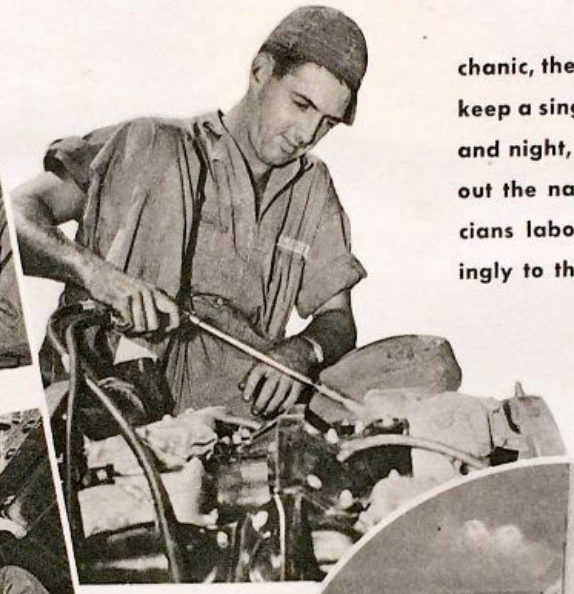
Repair on basic trainer.



He keeps 'em flying.



Engine change.

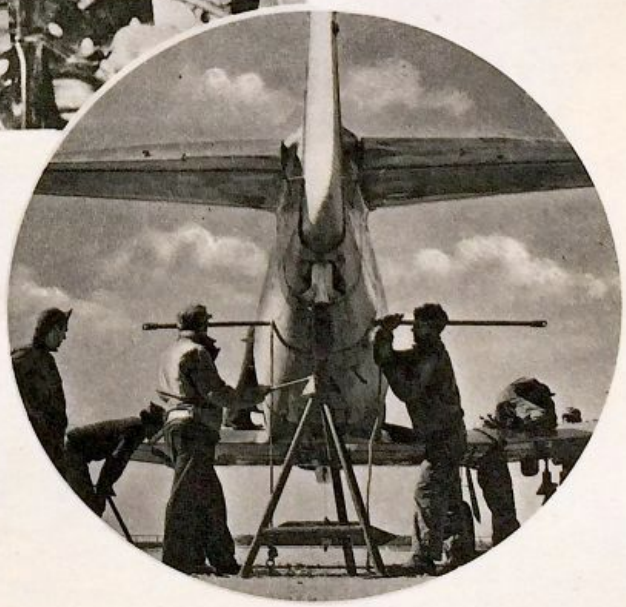


Overhaul.

Without the mechanic, the Army Air Forces could not keep a single airplane in the air. Day and night, at flying schools throughout the nation, these skilled technicians labor continuously and untiringly to the end that the thousands of planes under their charge will fulfill their mission.



Landing gear assembly.



Gun harmonization.



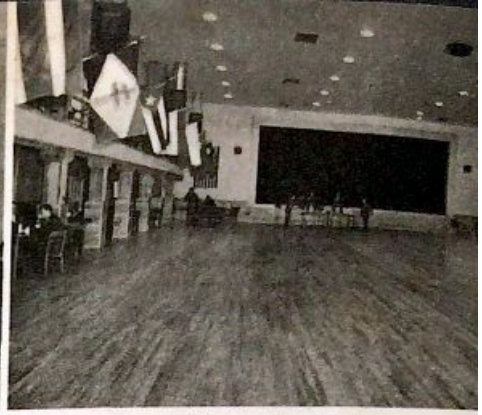
Gassing.



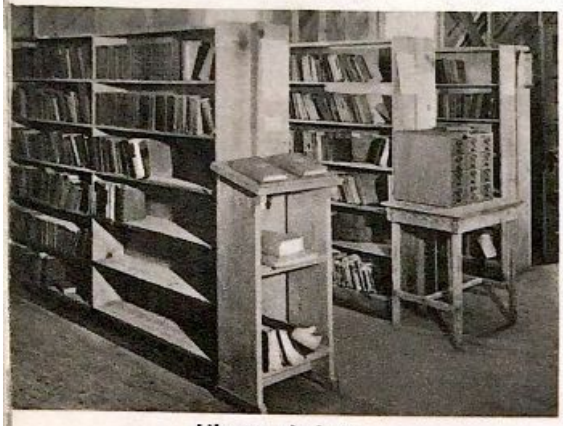
Cadet Day Room.



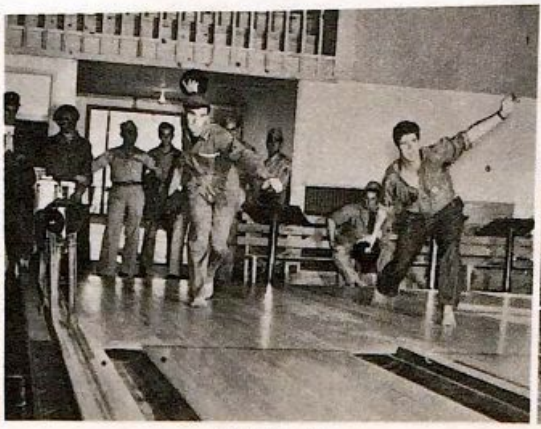
Into the side pocket.



Recreation Hall.



Library shelves.



"Strike."



Jive.

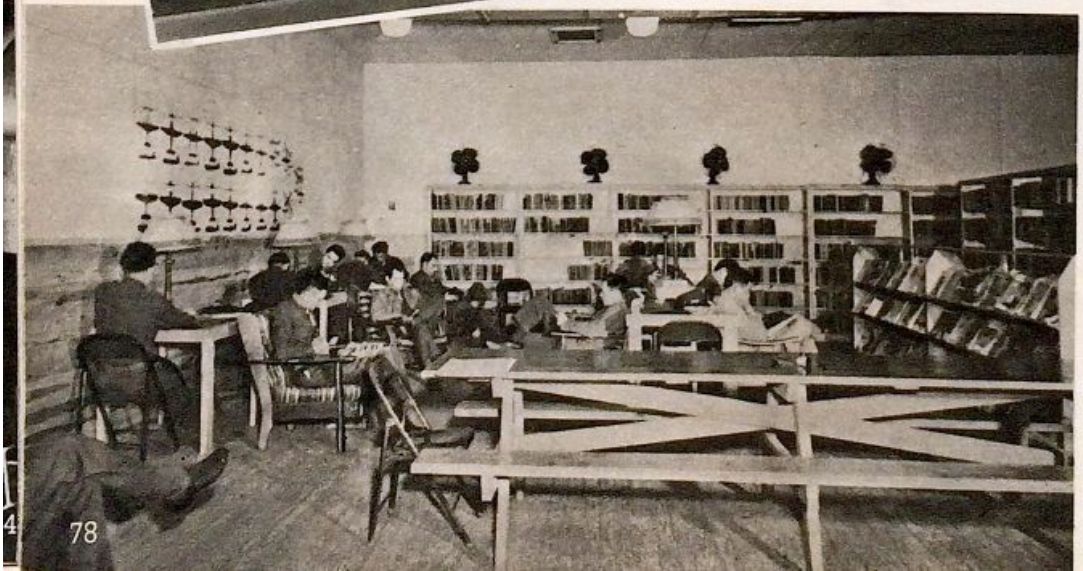
Movies are popular.



Recreation —

"ALL WORK AND NO PLAY..."

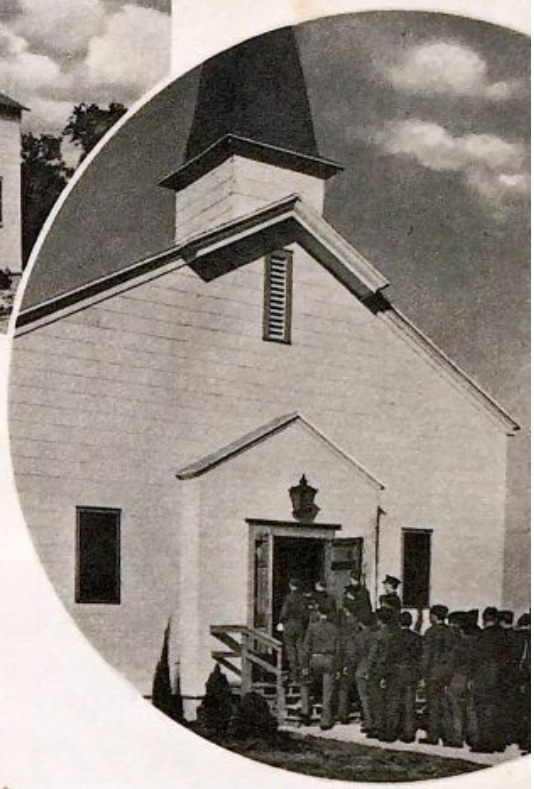
Training Command personnel are on a twenty-four hour a day work schedule. But the busiest man in the world must relax sometimes, and for this purpose stations are equipped with motion picture theaters where the latest films are shown at nominal costs; comfortable day rooms; attractive post exchanges and other facilities which make life worth while.



Reading room.



Post Chapel.



Entering the house of worship.



Sunday service.



Magazines are popular.



Soda fountain.



Record collection.

Barber shop.



P.X.



Mess Hall.





Americans 3 Miles New Air Blows Dealt Fury of Kursk Tank

SPORTING FINAL
★★★★★★
BID AND ASKED PRICES

The Sun

NEW YORK, MONDAY, JUNE 28, 1943.

SPORTING FINA
Sport Results on Page
LATEST RACING RESULTS

Big Fight Impends
As U. S. Forc
Clos

FORTRESSES POUND LEGHORN

U. S. HEAVY BOMBERS WRECK

TARANTO AIRFIELDS

TWO AIRBASES NEAR ATHENS

Planes Form Sky Bridge for Invasion

Lost in Attack on Rhineland City

Near Athens

PLANES SMASH

Bombs Rained And Indust

Wellingtons

Bombers Set Scene for Invasion

Big U. S. F e Bombs F

ALLIED AIRMEN AGAIN SMASH AXIS SHIPPING

Ontario Flyer Keeps dge to Father

Five Activities In Five Days Don't Stop Pilot

BIGGEST BLOW FROM MIDDLE EAST BASES

MORE THAN 400,000 POUNDS HIT THREE FASCIST AIRFIELDS

Tough Luck Not Bombs

Pilot's He Fi

FLEETS OF PLANES RAIN RUIN ON SICILY BLASTED

Yanks Pound Jap Fields Bombs

They're Catching Hell! Lightning Pilot Gives

Allies Step Up Bombardment

DAY-LONG AIR COVER GUARDS OUR TROOPS

Gunner Downs Seven Nazis

Air-Borne Force Was Fir To Attack Enemy in

30 Forts Bag 30 Axis Plane

Former Bodyguard of Mussol Down 7 in Battle O

9 Texans Get Medals

The End Result

Daily, headlines on the front pages of the nation's newspapers describe the heroic exploits of Air Forces fighter pilots and bomber crews in dealing death and destruction to the Axis on all the global fronts.

This superb combat record is a perpetual inspiration and a perpetual challenge to the personnel of the AAF Training Command, who have and will continue to see to it that the Air Forces are supplied with the world's most proficent air and ground crew members. They will give no rest to the Axis.

Mighty Allied Aerial Force Renews Raid Continent

BY LEO V. DOLAN,
INS Staff Correspondent.

Enemy Alter Whispers Raids on Sicily.

Cairo, June 28 (A P
United States Ninth
Force Liberators shatt
Axis hangars, pitted
ways and started fires at
airdromes near Athens
terday in a powerful fo
up to the Thursday rai
Salonika which opened
trans-Mediterranean a
offensive against Ger
and Italian holdings i
Balkans, it was announ
today.

High explosives were hur
fectively at the air fields at
Elevsis, ten miles west of A
and Hassani, southwest of
capital, and Allied traffic s
showered over the rather s
The leaflets carried a m
from President Roosevelt t
fighting courage and mo
the Greek people and expr
hope that the day of their d
erance was not too far away.
It also told the Greeks t
presentation of an anti-ax
rine patrol ship, the PC-46
the Government in Exile of t
George II by the United St
under lease-lend arrangem
June 10.

Despite savage efforts by
from forces to break up
raids, the four-engined bomb
executed their missions and
turned without a loss.

"At both targets our air
were attacked by large fo
ations of enemy fighters, and th
er-bombers, the latter mostly

Planes Torp Axis Troops

Forts Down 41 Axis Fighters Over Sicily

By REYNOLDS PACKARD

Allied HQ., North Africa, July 6 (U.P.).—Thirty U. S. B-17 Flying Fortresses shot down 41 enemy fighters in a furious 15-minute battle Monday over the Gerbini airdrome in Sicily and waves of following Forts and medium bombers smashed

U. S. BOMBERS ATTACK NAZI PLANE BASE

Fortresses Score Hits on Airfields at C and Abbeville; Many German Fight Destroyed; RAF Assists in Raid

London, July 10 (AP).—Strong formations of U States heavy bombers and flights of RAF light bo

Ng Star

1943—THIRTY-FOUR PAGES.

"All the News That's

CITY EDITION

200 U. S. PLANES HAMMER REICH U-BOAT YARDS

PANTELLERIA YIELDS, CONQUERED BY AIR MI

ALL THE NEWS ALL THE TIME
Largest Home Delivered Circulation
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Times Office: 202 West First Street
Los Angeles 53, Calif.

ITALIAN BASES HIT

ISLAND IS OCCUPIED

The Italian 'Gibraltar' Is Knocked Out by Mighty Avalanche of Bombs

ALL GUNS SILENCED

Troops Take Over in 22 Minutes as New Design in Warfare Emerges

By DREW MIDDLETON

ecord U.S. Middle East Flight of Liberators Raids 3 Airports

SLES HEAVILY ATTACKED

British and American Fliers Batter Sardinia and Sicily From Three Points

By The United Press

ALLIED HEADQUARTERS IN NORTH AFRICA, July 3.—The greatest force of American Liber-

VOL. LXII C SATURDAY MORNING, JULY 10, 1943

ALLIES INVADI

100-PLANE ALLIED ATTACK FIRES JAP KAHILI DROM

By DON CASWELL

Allied HQ., Southwest Pacific, Friday, Oct. 15 (U.P.).—The devastating Allied raid Japan's great New Britain Island base at Rabaul was preceded one day by a 100-pla attack on the main enemy air base in the northern Solomons, Kahili airdrome, Bougainvi Island, it was revealed today.

Pilots returning from Kahili could see fires burning for 30 miles, Gen. MacArthur's Friday communication said. Gun

1,000 TONS BOMBS PILED ON GULUGNI

B-24s And Flyir

Meets 600 Fighters In Greatest Battl

Roller-Bearing Factory Is Smashed in Vast Attack Breaking 72-Hour Lull

By Jack Tel

ng Messina

U. S. Glider Troops Pour In



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