AIR CORPS TRAINING CENTER NUMBER

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The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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THE AIR CORPS TRAINING CENTER

By Brigadier General James E. Chaney, Air Corps

To be effective, an Air Corps must have a large number of young combat pilots. The relative proportion of lieutenants to officers of higher grade in the Air Corps is approximately double that of any other arm. Therefore, to maintain the youth of the fighting squadrons, it is necessary to rotate young graduates of the Training Center through the combat squadrons and then return the bulk of them to civil life. This secures at the same time a pool of young trained military pilots in the Air Corps Reserve for immediate replacements in a major emergency.

The mission of the Air Corps Training Center is to turn out young military pilots competent to undertake the duties of a second lieutenant in a tactical squadron. It consists of the Primary Flying School located at Randolph Field, the Advanced Flying School located at Kelly Field, and the School of Aviation Medicine at Randolph Field. The course of instruction is one year, with eight months spent at the Primary School and four months at the Advanced School.

There are always three classes in the Training Center, two at the Primary School and one at the Advanced School, a new class entering every four months. At the Primary School the student spends four months on the Primary Stage and four months on the Basic Stage. The instruction on the Primary Stage is given on a training type airplane, known as the PT, and consists of dual instruction, the fundamental flying maneuvers, accuracy work and acrobatics.

On the Basic Stage, the student advances to a larger, more powerful and speedier type of airplane known as the BT type. In this plane, and with expert instructors, he now reviews all of the work done on the Primary Stage, but in a ship with different flying qualities and which more nearly approach those of tactical squadrons. At this stage, he also gets formation flying, strange field landings, instrument flying under the hood, and day and night navigation flights. The objects sought so far have been perfection in flying technique and the development of headwork.

The third quarter of the student's scholastic year is spent at the Advanced Flying School where he specializes in either Pursuit, Bombardment, Attack or Observation aviation, using service type equipment. In addition to intensive flying training in his own specialty, he is given also considerable experience in day and night navigation, instrument flying, and transition to all types of military airplanes available at the Advanced Flying School.

A student can absorb only a limited amount of flying instruction each day, especially during the first few months of the course. Therefore, from the very beginning of the course, ground instruction goes hand in hand with flying instruction. The main subjects taught are Airplane Engines, Theory of Flight, Radio Code, Ground Gunnery, Air Navigation, Meteorology, Airplane Maintenance, Military Law, Maps, Customs of the Service, and Military Drills, with a continued indoctrination of the fundamentals of military service and discipline. At the Advanced Flying School, while each student specializes in flying the tactical formations and in carrying out the tactical missions of one specialty only, all are given theoretical instruction in Pursuit, Bombardment, Attack and Observation aviation.

The student body is made up of Flying Cadets and student officers. Each new class consists of approximately one hundred and fifty men. The class beginning in October of each year usually is composed of from fifty to eighty second lieutenants from the graduating class at West Point. The Flying Cadets in this class therefore are reduced to such number as to make a total for the class of approximately one hundred and fifty. The Flying Cadets, with the exception of a few ex-enlisted men from the Army, are drawn entirely from civil

life. They are selected from candidates between the ages of twenty-one and twenty-seven years who have successfully completed at least two years in a college or university and who are in excellent physical condition. College graduates, however, receive priority in the selection of students.

Upon graduation from the Training Center the Flying Cadet is assigned to a tactical squadron at one of the Air Corps stations in the United States for an additional year, upon completion of which he is commissioned a second lieutenant in the Air Corps Reserve and serves an additional year with a tactical unit as a second lieutenant. The young officer graduate from the Training Center is also assigned immediately to a tactical unit in the Air Corps. Upon completion of his active duty as a second lieutenant, the young Reserve officer returns to civil life, retaining his status as an Air Corps Reserve officer. He is eligible to take examinations for a commission in the Regular Army when and if vacancies exist, and can affiliate himself with local Reserve or National Guard units, thus maintaining his flying experience, and his military contacts and associations.

In the period of one year at the Training Center the young student receives a total of 323 hours' flying instruction. As a result of this intensive instruction carried on almost continually throughout the year at the Training Center, the students and regular personnel thereat put in a tremendous number of flying hours per year. For the fiscal year 1935 this flying for the Training Center, computed in airplane flying time, amounted to 113,802.8 airplane hours. The flying time for the remainder of the Regular Army for the same period was 312,575.4 hours, that of the National Guard 40,696.7 hours and that of the Organized Reserves 23,204.8 hours.

The main object of the School of Aviation Medicine is to train medical officers of the Regular Army, National Guard and Organized Reserves in the duties of the flight surgeon. In addition, it carries out research work in aviation medicine and conducts physical examinations for flying. The basic course is of four months' duration, with two classes per year. The Training Center, with its large student body and Air Corps officer personnel, is an ideal location for the School of Aviation Medicine. The study of the pilot is still the greatest problem for flight surgeons, and conclusions about personnel, to have any degree of accuracy or value, must involve the study of large numbers. Furthermore, flight surgeons throughout the United States are largely responsible for the selection of trainees. A student flight surgeon, as a result of his intimate contact at the Training Center with the flying training instructors, trainees, and trainees who fail, obtains a firsthand conception of the type of Flying Cadet desired by the Air Corps.

About 45% of the students entering the Primary Flying School successfully complete the course and graduate from the Training Center. Most of the failures are due to unsatisfactory progress in flying. Therefore, the fact that a candidate has passed the rigid physical and the educational requirements does not insure his graduation. This indicates that there are other factors that make up the potential military airplane pilot that are not being given consideration in the selection of students. Just what all these factors are is problematical. However, the Training Center, and especially the School of Aviation Medicine, are studying this problem and with very promising and positive results. Success in being able to determine readily those possessing sufficient aptitude or other essential qualities for rapid progress in military flying would be of the greatest value in a national emergency. Enormous savings would be made in airplanes, instructors, human lives, and time. During the last war, in the Air Services throughout the world, there were few eliminations; the student either completed the course or was killed.

The Training Center appreciates the fact that many of those who are eliminated in its course of flying instruction could be taught to fly under certain conditions, but based on experience of the past, feel that they do not possess those qualities necessary in developing a military fighting team in the air. With a limited number of military pilots authorized for the Air Corps, it is essential to retain only those students who have sufficient aptitude to progress fairly rapidly and safely to a high standard of performance in military flying and combat teamwork that are so necessary in the face of an enemy in active operations.

The problem of the Air Corps in this respect may be compared somewhat to that of developing a big league baseball team where the number of players is limited. The recruits for these teams are carefully studied and selected from those who have demonstrated that, in addition to being physically fit and able to play an excellent game, they possess certain qualities that can be developed to a much higher standard of performance in teamwork than they have so far exhibited.

The trend of military airplane development definitely points to the use of multi-engine airplanes of greater size, greater speed, and greater cruising range. The operation and maintenance of the modern military airplane with its radio equipment, blind landing equipment, supercharged engines, controllable pitch

propellers, together with other instruments and equipment, clearly indicate more air space, more ground space, more hangar space, more shop space, and the extension of all ground and air courses now being given at Randolph and Kelly Fields as soon as modern equipment becomes available.

With the War Department's approval of the 2320 airplane program as recommended by the War Department Special Committee, headed by the Hon. Newton D. Baker; with the former Chief of Staff, General MacArthur, recommending that this figure be stepped up to 2500 airplanes; with a present strength of approximately only 1300 airplanes for the entire Air Corps; with an actual shortage in flying personnel to face, which may be critical if not foreseen and synchronized with an improvement in the airplane situation; with England, France, Japan, Italy and Germany entering upon greatly expanding programs for their air forces in recognition of the increasing importance of aviation in national defense; with our geographical isolation fast becoming a thing of the past; with the fairly safe and reasonable assumption that our military aviation will continue to expand in years to come, the Air Corps Training Center undoubtedly has before it a formidable task in maintaining the youth of the combat squadrons of our Regular Army and National Guard, and a pool of Reserves for immediate service in a national emergency.

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