

Brigadier-General Allen Discusses His Plans For An Aerial Fighting Fleet.

By John E. Watkins

YOU may now get your first definite idea as to how our sky army is to be organized and equipped. It is ready to pass from the experimental to the practical stage. Hitherto you have regarded the performances of our military aviators as feats of spectacular rather than utilitarian, and what pictures you have had of their future functions in actual warfare have been for the most part extravagant phantasies.

The general of our aerial forces today explained to me his plans and ambitions for this new arm of the service. This officer is Brigadier General James Allen, who for a number of years has been chief signal officer of the regular army. He is a practical man. If he dreams dreams, he does not confide them to the hungry journalist. He sees no visions in the empyrean. He will draw you no word pictures of tiffs between aerial cruisers and winged torpedo craft, nor will he tell you how many pounds of dynamite flung from the heavens would wipe Greater New York from the face of Mother Earth. He attacks his problems as would the chief engineer of a railroad or a telegraph company. He knows all of the sky doings of every great military nation on earth, and while his plans for our future air force combine the chief virtues proven by foreign experts, they also include many original ideas of his own.

In the first place, General Allen will organize his sky soldiers into sections, platoons, companies and squadrons. In the air each section will consist of one aeroplane with two aviators. Two of these sections will compose a platoon; two platoons, a company; two companies, a squadron. In other words, a squadron will consist of eight aeroplanes, to which 16 aviators will be assigned. All of these aviators will be captains or lieutenants of the regular army. Each squadron will be in command of a major, who will have on his staff two commissioned officers in addition to the military aviators assigned to the machines. He will also have under him a force of 48 "aeroplane mechanics"—mechanics and assistants—all enlisted men. There will be five mechanics assigned to each aeroplane and four extra ones for each company.

To one field army of regular troops there will be three aviation squadrons—one assigned to each of the two divisions and one to the headquarters of the field army's commander. The squadron assigned to headquarters will be equipped with aeroplanes of extra power for long distance reconnaissance. And there will also be special machines for the field artillery. In addition, there will be 64 machines and 152 aviators distributed among 14 of our continental coast defense stations. So far we have been considering only the regular army of the United States.

In the Philippines General Allen wants two squadrons, or 16 machines; in Panama and Hawaii, each one squadron, with eight machines.

Fleet of 120 Machines
All told, he wants, for the regular army alone, 120 aeroplanes in charge of 285 aviators, and 720 enlisted mechanics. This great establishment would be headed by two colonels, under his command, besides two lieutenant colonels and eleven majors. At present he has only 10 officers for aviation duty, while France already has 800, or three times as many as he asks for—and this despite the fact that our army was the first in the world to develop practical aviation.

France will spend a total of \$6,400,000 for its aerial fleet this year. John Bull in the same time will spend \$1,610,000 on his aviation school, and

Germany will buy \$624,000 worth of military aeroplanes before the year is over. Within a month the Kaiser will have 350 military aeroplanes, while we now have six. France, in her army alone, has just 100 times as many of these machines as we have, and England has more than 13 times as many military aviators as we can boast of.

Our militia, according to General Allen's program, must be equipped with machines distributed among its mobile troops in proportion to one squadron for each division of men, and the militia aviators will receive diplomas from the regular army's aviation schools. Other machines besides aeroplanes will enter into the equipment of each squadron, which group of eight flying machines will be the unit of our sky force just as the regiment is the unit of our land force. There must be great trucks to carry whole aeroplanes and tractor automobiles to haul these trucks, as well as transport the aeroplane crews in the field. These heavy automobiles and trucks will carry "aeroplane tents" for temporarily sheltering machines separated from the hangars; also repair tools, spare parts and additional supplies of gasoline. General Allen says that it will also be necessary to have attached to each of these squadrons of eight aeroplanes a self-propelled repair shop, which can be moved to any place in the field where a machine may be in distress. This would be always equipped with reserve supplies and a complete set of spare parts for machines in use.

Distributed over the country are to be five training schools, officially known as "centers of aviation," from which our sky soldiers will be continually making test and instruction flights. One of these points will be upon the Atlantic coast, one on the Pacific, one on the Great Lakes, one on the Gulf of Mexico and one at some central inland point. In addition, there will be as many auxiliary centers as it may be possible to organize. It is the general's ultimate ambition to have such a school of instruction in each state.

How a "Center" Will Look
You are wondering how these principal aviation schools will appear. The accompanying photograph of the aviation center already established by General Allen at College park near Washington will give you a partial idea. There will be a wide, level field edged by a line of low lying hangars—or stables for the aerial steeds; sheds, workshops, storerooms and barracks.

At these centers officers not only of the regular army, but of the militia, will be trained as aviators and enlisted men of both forces will be instructed as "aeroplane mechanics." As inventors turn out new aviation devices they will be brought to these points for test. The officers and mechanics will also be systematically employed in studying weather conditions and other atmospheric phenomena in their relations to flying; in sending wireless telegrams from the clouds; in sketching map drawing and making reconnaissances from aircraft; in dropping projectiles from the heavens and in accurate firing of rifles and machine guns from aeroplanes.

Hydro-aeroplanes—machines that will alight upon, skim over and fly from water as well as land—are also proposed as part of the army's equipment. So far these vehicles have been adopted only by the navy.

The five "centers of aviation" described are not to be called schools, because they will be points for the concentration of squadrons as well as for the instruction of officers and mechanics. No new land and few new buildings will have to be acquired for them.

Our existing army posts will supply all of their needs except those of the eastern center, which will probably occupy the College park field near Washington, already equipped as an aviation school for the army.

This, the first of the series of "aviation centers," is now being taken possession of by 10 military aviators lately moved north from the temporary winter school at Augusta, Ga. The school is in command of Captain Charles de F. Chandler, the army's chief aviator, who has also won honors as a balloonist. He now has in charge one captain and seven lieutenants of regulars, as well as one lieutenant colonel of the Ohio national guard. The accompanying photographs show these aviators at work at College park, as well as the most modern machines lately installed there.

The army now has only six aeroplanes in use, but General Allen tells me that he has six more ordered, and hopes to have four others, making a total of 16 by July 1. The Wright, Burgess-Wright and Curtiss machines already working were bought at an average cost of \$5,100 apiece, but the

new machines will be much more powerful and will have an average cost of at least a thousand dollars more each. The last five contracted for will be known as "weight carrying military aeroplanes." They carry two aviators, and before they will be accepted they must prove by trial flights that they can ascend 2,000 feet in 10 minutes while carrying a weight of 450 pounds, in addition to four hours' supply of fuel; that their planes will insure a safe gliding angle in case the engine stops, and that they can alight upon or arise from plowed fields. The speed of these heavy machines, with the weight mentioned, must test up to 45 miles an hour.

More than a mile a minute speed, or 65 miles an hour, must be attained by a class of "light scouting aeroplanes," for which the general has had specifications drawn. These will carry only one aviator each.

Physical perfection is demanded by the general of men who seek admittance to the College Park aviation school or who will apply for training at the four other schools projected. Only commissioned officers of the army and militia need apply, and before they can be admitted these must undergo a rigorous physical examination, proving beyond a doubt that their eyesight is normal, without glasses; that they can estimate distances accurately; that they are not color blind for red, green or violet; that their ears are as sharp as their eyes; that their wind is good, their lungs and hearts perfectly sound, and that they have no diseases of the nervous system or digestive apparatus.

You will be surprised as well as amused at some of the tests prescribed for these candidates. Here, for example, are some devised to detect diseased conditions of the internal ear:

Have the candidate stand with knees, heels and toes touching. Have the candidate walk forward, backward and in a circle. Have the candidate hop around the room. All these tests should be made with the eyes open and then closed, on both feet and then on one foot, hopping forward and backward, the candidate trying to hop or walk in a straight line. Any persistent deviation, either to the right or left, is evidence of a diseased condition of the internal ear. Intestinal disorders tending to produce dizziness are also looked out for very carefully. And there is an elaborate test for precision of the limb movements.

Having run the gauntlet of the ex-

aming surgeons, the wouldbe military aviator must next get used to his Pegasus. This takes some time and is preparatory to the final series of six tests which determine whether he shall receive his certificate from the secretary of war and see "military aviator" printed after his name in the army register.

Here are six tests which he must perform before he can receive his degree:

He must fly to an altitude of at least 2,500 feet; make a cross country flight of 10 miles going and 10 miles returning; fly five minutes in a 15 mile wind; carry a passenger 500 feet up and land him clear within 150 feet of a mark; execute a volplane from 500 feet up with the engine cut off and land within 300 feet of the mark; make a reconnaissance flight of 20 miles at an average height of 1,500 feet and bring back information concerning features of the landscape passed over.

Having thus won his certificate, he will be detailed with one of the aeroplane squadrons and will receive 20 per cent extra pay while engaged in his perilous profession. And if he cracks his head during, such service his widow will be given his full pay for six months after he turns up his toes. These, at least, are provisions of the bill now before congress, which makes partial provision for General Allen's general scheme for enlarging our sky army from its present formidable force of 10 aviators.

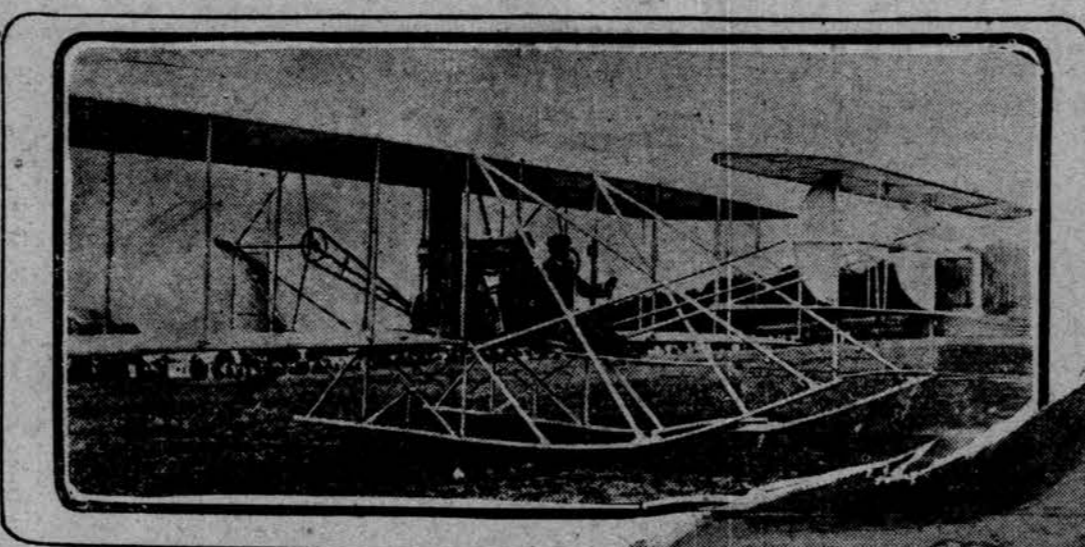
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CURTISS BIPLANE, ARMY AVIATION SCHOOL



BRIG GEN JAS ALLEN U S A

What Our Sky Army Will Be Like



AN INSTRUCTION FLIGHT COLLEGE PARK



BURGESS-WRIGHT BIPLANE, ARMY AVIATION SCHOOL



HYDRO-AEROPLANE, U.S. NAVY WHICH WILL ALSO BE ADOPTED BY THE ARMY



CAPT C DE F CHANDLER CHIEF AVIATOR U S ARMY

