

EDUCATION—MILITARY SCIENCE

# Pre-Induction Training

Public high schools have been called upon to see that Army is provided with a flow of trained manpower to keep our weapons fighting. Five courses planned.

By JAMES P. MITCHELL

Director, Civilian Personnel Division,  
War Department (Over Columbia  
Broadcasting System under the auspices  
of Science Service)

► IN 1943, we shall have an army of 7,500,000 men. All of them, fathers and sons, husbands and brothers, will be in uniform; ready to give their lives to the nation so that a better world can be built.

When we entered the war just eleven months ago, few of these men expected to be in the Army. Only a tiny fraction of them were professional soldiers. A few more of them had already been called to serve because the war clouds were then gathering. But most of them, by far, were pursuing the ways of peace, in stores, in factories, in offices, in mines, and on the farm. About a million of them, boys in their teens, were sophomores in high school when Japan attacked Pearl Harbor.

Almost overnight, seven million men are now called upon to leave their homes and to change their way of life. They are asked to do battle against an enemy who for more than ten years has been organizing and preparing for this day. While we were concerned with education, with standards of living, with the preservation of human dignity, they were secretly planning for war, depressing their people to bare subsistence, regimenting the common man to tyranny in the hope of speedy conquest.

If this were a war after the ancient pattern, there could be no doubt as to the outcome. Man for man, we are stronger; our will to fight is greater; our cause is just. But this is not an ancient war. It is a war of science and technology. Our enemies are strong because they have built many machines to multiply their strength and have trained many men to use them.

## Complex Combat Machine

The modern combat division is a huge and complex machine manned by specialists. All of its intricate parts are closely articulated. Its purpose is to *move*, rapidly, relentlessly, so as to kill and destroy. To meet such an enemy,

our seven million must be better organized, with more and better material, and with manpower that is better trained. The mere will to fight, and a just cause are not enough.

Unless we halt the enemy machine, all the gains free men have made in a thousand years will be swept away. We must face unflinchingly the necessity of contributing, if need be, seven million of our best physical specimens, for only they can fight this kind of war. But, more important, each of the seven million must be given knowledge and skill to fight effectively.

General B. B. Somervell saw what it will take to win when he made his eloquent and stirring appeal to the schools and colleges of the nation last August. "The job of the schools in this total war," he said, "is to educate the nation's manpower for war and for the peace that will follow. We can lose this total war on the battlefield as a direct result of losing it on the education front. Our job is to teach men to fight. We cannot long continue to take the time and facilities needed for fighting and use them on a job for which the schools are better equipped than is the Army."

## Challenge to Schools

Suiting action to words, General Somervell established the Pre-Induction Training Section of the Civilian Personnel Division, Services of Supply, as the central coordinating agency of the War Department to simplify and facilitate arrangements for the appropriate training of individuals prior to their entrance into military service. Never before in the history of our country has such a direct challenge been made to school teachers and administrators. The schools and colleges have been given a definite job to do. That job is to provide trained manpower that will not only produce the weapons for the Armed Forces but provide the Armed Forces with men who know how to keep the weapons *rolling* and keep them *fighting*.

The response of the schools was electric. From all parts of the country came the cry: "What do you want us to do? We'll do it!"

With the cooperation of the U. S. Office of Education, experienced officers and classroom teachers were put to work, examining and analyzing the training program of the Army. It was immediately clear to these officers and teachers that the schools can undertake certain basic aspects of the training in several fields. Selecting the particular Army jobs where shortages are critical, they formulated teaching outlines. The subject matter included was justified by its importance to the work of a soldier. This was judged and decided by Army experts in various branches of the service. The organization of the courses was determined by the essential teaching needs and facilities of the schools as judged by educational experts. The outlines were prepared to serve all three divisions of the Army, the Army Air Forces, the Army Ground Forces and the Services of Supply.

## Victory Certificates

Upon successful completion of these courses, the high school student will be awarded Victory Certificates. These certificates will accompany the inductee to the Army reception center and will be used as evidence in determining the proper assignment of the man.

On September 15, copies of the outlines were released to over 3,000 school officials. Although plans for the Fall semester had been made in June, school authorities in many sections of the country did not hesitate to alter these plans so as to include pre-induction courses.

Schools have abandoned "business as usual" and are going "all out" for the war effort. There are indications that every school in the nation plans to have some form of pre-induction training in effect by February 1.

The courses which the schools have so willingly accepted are based upon Army needs in fields of critical shortage. Three of the pre-induction courses are basic to training for hundreds of different Army jobs. For example, the course in Fundamentals of Electricity provides a foundation needed in about 150 Army occupations. Similarly, the course in Fundamentals of Machines contributes to about 220 Army occupations. The course in Fundamentals of Shopwork offers manipulative experiences, needed in more than 180 Army occupations.

Two additional course outlines have been prepared for use in a more advanced stage of pre-induction training. A course in the Fundamentals of Radio and another in the Fundamentals of Automotive Mechanics introduce the

high school student to specialization.

Vocational and technical schools and many general secondary schools will offer pre-induction training on a third-level of specialization, with courses designed to furnish considerable degree of *operational skill*. Though there are many courses of this type which might be developed, the following make a maximum contribution to Army needs at the present time: Radio Code Practice and Touch Typing and Radio Maintenance and Repair.

A careful and analytical study of the technical and field manuals used by the Army in its post-induction training reveals unmistakably that clear understandings are essential for the development of the needed skills. Without such

understandings, development of the skills is difficult and sometimes impossible. Again and again the Army devotes many hours of valuable time to a kind of teaching which could have been done before the inductee came to the Army.

There are two main divisions of these training courses for future soldiers. One is for young men now in schools. But, all the graduates of all our high schools last June would not be sufficient to meet a two-months' requirement of our induction centers. So the bulk of the trainees will be older men.

Hence, the job in the schools is to take the raw material of good American bone and sinew and brains, and convert it without a waste motion or a waste minute into the kind of men we need.

*Science News Letter, November 14, 1942*

## RADIO

# Radio Jobs for Women

► WAACs WILL be trained to replace enlisted men in the Army Air Forces as radio operators and radio mechanics in a course given under the direction of the U. S. Army Signal Corps.

The first group will begin training on November 30. Three other groups are now scheduled to take the training, beginning at intervals of about one month.

Girls selected to go to Kansas City, Mo., for the radio training will be picked from the ranks of the WAACs during their basic training. Requirements are that they must have high school education, including physics. They must be mechanically inclined and must pass the Signal Corps aptitude test, which measures the speed and accuracy with which the individual can distinguish sounds. They must be able to type and must pass the Army's classification test.

The woman who is already trained as a radio amateur and has her license must enlist in the same way as others in the regular force of Army Auxiliaries and must take the same basic training. But, of course, she stands a much better chance than the others of being selected for the radio training.

Women are in demand for radio jobs in eight other branches of the war services, a survey by George W. Bailey, chairman of the Radio Section, Office of Scientific Research and Development, has revealed. The jobs are open to women who know enough code and theory to pass amateur radio operator's examination.

1. Women are needed as junior aircraft communicators by the Civil Aeronautics Administration. The CAA offers a six-months' course of instruction for this work. Pay during the training course is \$1,440 a year with an advance at the end of training to \$1,620. Applications are handled by Civil Service.

2. The Army Air Forces are using women for instructors. Student instructors can make \$1,620 and experienced radio women can get \$2,000 at four schools—Scott Field, Ill., Chicago, Sioux Falls, S. D., and Madison, Wis. Apply to Civil Service if you are interested.

3. The Signal Corps General Development Laboratory at Fort Monmouth, N. J., is taking women from 16 to 50 years old. A six-months' training course is offered during which students are paid \$120 a month with employment at the end of the course at \$135. Applications are handled by Lieut. John T. Freeman, General Development Laboratory, Signal Corps, Fort Monmouth, Red Bank, N. J.

4. The Navy wants trained women for the Radio Section, Bureau of Ships. Applications are handled by Lieut. L. B. Wheeler, Room 2N-21, Navy Department.

5. The Naval Ordnance Laboratory, Navy Department, attention Mr. Ralph Cautley, is also employing trained women.

6. The Naval Research Laboratory, Anacostia, D. C., attention Mr. Fred A. Pierce, can use the services of women.

7. Outside the Government, the Ra-

diation Laboratory, Massachusetts Institute of Technology, Cambridge, Mass., has a few openings for qualified women. Information about them can be obtained from Dr. F. W. Loomis.

8. The WAVES offer radio assignments to enlisted women.

Although women desiring radio positions must first learn the radio code, jobs as code operators just do not exist for women, Mr. Bailey said. The armed services use teletypes entirely for most radio communication. Code is tapped out only in the field in the front lines.

It is necessary to learn code, however, in order to obtain an amateur radio license, and this license is a stepping stone to most radio jobs.

To prepare for the license examination, you can go to a commercial or Government sponsored radio school, take a correspondence course from a commercial school, or you can study at home. Mr. Bailey recommends for home study a small library of books which can be obtained for a total of \$1.75. These include a "License Manual", "Learning the Code," "How to Become a Radio Amateur Operator" and "The Radio Amateurs' Handbook."

*Science News Letter, November 14, 1942*

You Can  
**FIND** Quickly

in This **NEW**  
 **SCIENCE CATALOG**

For correct, beautifully photographed, full-color 2" x 2" Kodachrome slides of Chemistry, Biology, Botany, Zoology, Physics, and other scientific subjects, send today for a FREE copy of the new S.V.E. catalog on the Sciences. Thousands of slides are listed here—the result of years of research by the Society, producing, assembling and classifying suitable material for use in secondary schools and universities. Write for catalog.

**SOCIETY FOR VISUAL EDUCATION, INC.**

Dept. 115NL  
100 E. Ohio Street  
CHICAGO, ILL.

**THE RIGHT**  
**2" x 2"**  
**COLOR SLIDES**  
**for**  
**Every Lesson**