

GENERAL SCIENCE

25,000 Women Will Be Employed By Armed Forces

Navy Wants Immediately Women With College Degrees Who Also Hold Amateur Radio Licenses; For Locators

A CIVILIAN Army of at least 25,000 women will be employed by the United States armed forces to operate radio locators of enemy planes and do other vital work in the field of radio.

This announcement was made by George W. Bailey, chairman of the radio section of the Office of Scientific Research and Development before the Conference on War Demands for Trained Personnel conducted in Washington, D. C., by the Institute of Women's Professional Relations.

The Navy right now wants women with college degrees, preferably in physics, who also hold amateur radio licenses, Mr. Bailey said. They will be started at once on a salary of \$2,000 a year either on radio locator work, in research laboratories, or in the development and installation of radio communication facilities.

College women who hold degrees in physics or electrical engineering, but have no radio experience, will also be taken on as junior physicists and junior engineers at \$2,000 a year.

Women who hold amateur radio licenses, but do not have degrees, will be started at once on radio communication facilities at \$1,620 a year.

The Signal Corps of the United States Army will soon offer jobs to college women with similar qualifications.

"This is a radio war," declared Mr. Bailey. "This war is not exclusively a soldier's war: it is a civilian's war, it is a scientist's war, it is a woman's war. Woman has a very definite part, and she must be trained to do that part. To do it most effectively, she must be trained especially as a scientist, a physicist, an engineer, or a technician."

The demand for technically trained women will far exceed the supply available now, or in the next few years, Mr. Bailey predicted. And the demand for men who have degrees in either electrical engineering or physics, with some radio training or experience, is practically unlimited. These men are wanted to serve as commissioned officers in the

Signal Corps Reserve and in the Naval Reserve. Age limits are from 19 to 50.

Men and women going into war service in this field now will find their services in great demand after the war, Mr. Bailey predicted.

"Some day this war will end," he said. "Then the electronic devices used so effectively to help end it, will be available for commercial purposes.

"I wish that I might tell you of the possible uses of these devices. They are marvelous beyond the comprehension of the average person, but I assure you that there will be a need for a large number of skilled men and women to install and operate them for use in every-day life."

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Psychologists in Army

THE ARMY doesn't want men who can't even keep in step.

Inability to coordinate and to grasp instructions or remember orders are among the failings which make a man a misfit in the Army, Dr. Ruth Tolman, chairman of the National Research Council's Sub-Committee on Services of Women Psychologists, told the Conference.

It is to detect in advance such failures and to sort men according to their abilities that the Army's General Classification Test was developed by Adjutant General's Office.

Such psychological work in the Army and similar work on selection in the Navy, Civil Aeronautics Administration and other government departments employ more than 500 of the nation's total pool of about 3,000 psychologists, Dr. Tolman indicated. Although these are mostly men, they leave jobs open for women.

"If democracy is to survive," she said, "young adults must continue to be trained and problem and defective children cared for. . . We must not permit the urgency of these times and the impulse to plunge at once into work immediately related to the war to undermine

the depth and thoroughness of training. Brigadier General Rose, assistant to the Adjutant General, said recently in speaking of personnel requirements of the Army: 'First of all, the Army needs educated men, and consequently young men should be urged to continue their education as long as possible before volunteering for military service.' It will be in large part women on the faculties of colleges and universities who must undertake the job of education."

Other fields demanding the services of women psychologists were listed by Dr. Tolman as including: child care; mental testing for local draft boards; classification of workers in industry; planning for reeducation of wounded soldiers, particularly the brain-injured; solving special problems connected with mentally deficient women and girls near Army camps; training of men rejected by Army for illiteracy; training of civilian leaders; and education for health.

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Even in comparatively inactive captivity, the *mole* will sometimes eat more than its weight in a day.



PARATROOPER AND NURSE

Here are two very different uniforms prepared by the U. S. Army Quartermaster Corps for different functions in the service. At the right is an Army nurse from Walter Reed Hospital. At left is a paratrooper in the new uniform designed to enable him to fight efficiently in his specialized type of battle. The photograph is an official one by the U. S. Army Signal Corps.



PUBLIC HEALTH

Millions of Doses of Yellow Fever Vaccine Protect Army

Provided Without Charge by Rockefeller Foundation
And Sent in Large Numbers To Africa; Typhus Active

OVER 4,000,000 doses of yellow fever vaccine, nearly half of them furnished the U. S. Army and Navy, have been provided by the Rockefeller Foundation without charge as a part of a gigantic international battle against disease that has been accelerated by war.

These protective medical shots have been sent in large number to East Africa, since the report by Dr. Raymond D. Fosdick, president, just issued shows that 1,662,380 doses went to that area, presumably much of it to troops in that strategically important part of the world.

Several million more doses will be supplied the American armed forces during 1942, the annual report reveals.

The importance of research programs to combat malaria, typhus and influenza is stressed by Dr. Fosdick. Usually such diseases cause more deaths than bullets.

Typhus is now active in many parts of Europe, Dr. Fosdick warns. Epidemics are now building up in southern Spain, while other focuses of the disease are in Poland, Rumania and neighboring countries. The report observes that medical science does not yet know how best to

control or eradicate the breeding of lice, carriers of the disease, under war conditions, nor has there been found any highly effective or reliable method of immunization.

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MEDICINE

Undernourishment Increases Resistance to Viruses

RESISTANCE to infantile paralysis and other diseases caused by viruses may depend on whether or not the cells of the body are thirsty for water and are well-fed or undernourished, it appears from experiments reported by Dr. Douglas H. Sprunt, of Duke University School of Medicine (*Journal of Experimental Medicine*, March).

Thirstiness, not just in a dry mouth but in every cell of the body, lessens resistance to vaccinia, the virus used in vaccinating against smallpox, Dr. Sprunt discovered in experiments on rabbits. Infantile paralysis, scientists have already observed, often strikes children and young people after athletic contests or

IN DEFENSE OF FREEDOM

Equipped by the U. S. Army Quartermaster Corps for fighting in every type of climate and specialized duty are these soldiers lined up for inspection on Washington's Mall. The uniforms are (left to right) snow shoe trooper, summer or tropical field, winter field, armored force, ski trooper, paratrooper and summer mounted. The photograph is an official one of the U. S. Army Signal Corps.

similar physical exertion in the summer. Water sweated from the body at such times may have created such a dry, thirsty state throughout the body that the nerve cells which the infantile paralysis virus strikes were unable to resist the virus attack.

When there is plenty of water in the tissues of the body, however, the virus tends to be localized at the invasion point and cannot grow and spread enough to cause disease. This, at least, appears to be the mechanism in the case of the vaccinia virus and the rabbits.

Food also plays a part in resistance to virus infection. Contrary to what might be expected, resistance to the virus is greater when the body is undernourished than when it is well-fed. This finding in the rabbit experiments bears out the observations of doctors that in virus diseases like infantile paralysis, it is the healthy, well-nourished children that are attacked. The reason, apparently, is that viruses are less able to multiply in poorly nourished cells.

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