

GENERAL SCIENCE

Keep Scientists on Job

If universal military training is begun, our technical manpower would render best national service by being assigned to work at research projects.

By WATSON DAVIS

➤ SCIENCE and technology will be mobilized along with men, materials and money in meeting the new world emergency now before the nation.

If selective service is put into effect again and universal military training is begun, careful planning will be necessary in order that some of the mistakes of the use of technical manpower in the last war are not made again.

Less regard was given in the United States to putting the scientist and engineer into the best place for national service than in most warring nations. Even some of the key research laboratories, such as those producing the atomic bomb, had to argue long and painfully with draft boards to prevent their essential draft-age men from being pressed into shooting services.

Full-scale researches on jet propulsion, atomic bombs, biological or germ warfare, and scores of other direct military developments are underway on a relatively large scale with Army, Navy and Air Force funds.

Military Funds for Research

More fundamental researches in all fields of science and technology—ranging from the sun to the brain—are similarly supported by military funds on a long-range basis.

These military expenditures for science and technology are coordinated by a Research and Development Board, headed by Dr. Vannevar Bush who directed the famous OSRD in the last war.

There will be an immediate demand if the draft is re-enacted to keep the scientists working on these projects at their research jobs, regardless of their age.

Scientists and military officials alike are expected to recommend that clear-cut Congressional authority be given selective service to keep the scientists at the jobs they and only they can do, regardless of decisions by local draft boards. In doing this America would adopt a principle that worked well in almost every other nation during the war, Soviet Russia included.

Universal military training presents a more difficult and critical problem from the standpoint of supply of technical manpower. During the last war, thousands of scientists of the future were lost because they were drafted and not allowed to undertake basic training in college that would lead to research careers. Many educators and scientists are opposed to universal military training in fear that it would remove the potential scientists from their training at the most critical time.

Nurturing Science Ability

People possessing rare science ability must be allowed to develop and use it. That is the argument. Wasting scientific ability would be just as unwise as using precious uranium for coloring glass instead of making atomic bombs. Demands will therefore be made in UMT discussions to protect by Congressional action the intelligent use of potential scientific manpower.

The passage of the National Science Foundation bill soon to be reintroduced

into Congress as a bipartisan measure may be speeded by the present emergency. Further delay in the establishment of a fundamental national science program would be illogical in the face of increased demands upon science both by the military needs and the nations to be helped by ERP.

Prompt establishment of a science foundation combined with the military research program underway would probably obviate the organization of a temporary research effort such as OSRD conducted during the war.

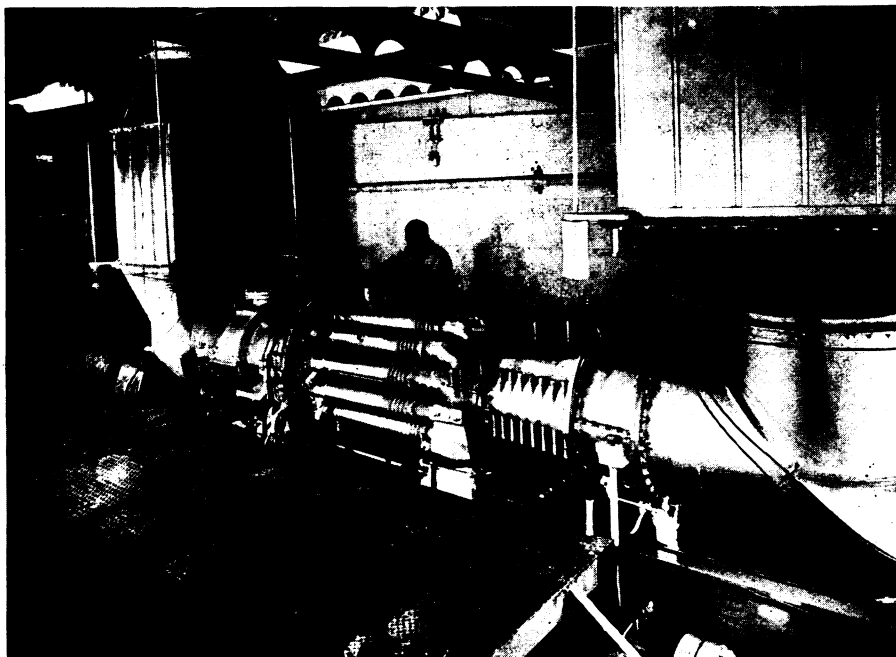
In giving aid to the 16 European nations under ERP, technical information will play a large part. One of the provisions specifically spelled out in the bill as passed by the Senate is the "procurement and furnishing of technical information and assistance."

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ENGINEERING

Adapt Jet Plane Research To Turbine Locomotives

➤ A MAINLINE railroad locomotive powered with a gas turbine electric drive, under construction in Pittsburgh by Westinghouse Electric Corporation, will make use of much of the knowledge gained in building jet propulsion engines for high-speed airplanes, the company revealed.



REVOLUTIONARY LOCOMOTIVE—Shown here tested under simulated railroad operating conditions is the heart of a possible "iron horse" of the future being powered with a 2,000 horsepower gas turbine.