

RESOURCES

Urge Registry of Engineers

► THE Engineers Joint Council, representing 160,000 of the nation's engineers, is asking the government to register every engineer up to age 70 in critical fields and to draft them where necessary for work in industry and civil defense as well as in the Armed Forces.

In a letter to Manpower Director Robert L. Clark of the National Security Resources Board, the council said the shortage of engineers is now so acute that this step must be taken even if total general mobilization is not immediately necessary.

The Council also supported Selective Service Director Lewis B. Hershey's plan for postponement of service for qualified high school graduates to go to college. Even during all-out mobilization, Council members said, there should be at least a trickle of boys moving through college.

The proposal, as outlined by E. G. Bailey, vice-president of Babcock and Wilcox and chairman of the Council's Engineer Manpower Commission, would call for the registration of up to 400,000 engineers and persons in school working toward an engineering degree. Selective Service would do the job.

The government was urged to set up a National Engineering Personnel Board which would review the registration and establish criteria for placing registrants in an engineering reserve. The board would

have the power to compel registrants to take jobs in defense industries, or with civil defense, or to draft them into the Armed Forces.

The Council's statement was backed up by letters and telegrams from 16 industrial corporations. The General Electric Company reported that the engineer shortage was "acute and desperate" and that it was impossible to fill the current needs plus losses to Selective Service and of reservists being called up. Pratt and Whitney pointed out that it now takes three times as many engineers to draft plans for airplanes as it did ten years ago.

The Engineers' plan is the most drastic yet suggested to the government. Chemists and physicists have proposed to the NSRB much the same plan but only for use in full mobilization.

The critical shortage of engineers was not foreseen, either by the engineers themselves or by the Department of Labor. Much publicity was given last spring to the view, since found to be erroneous, that June, 1950, graduates in engineering would have a hard time finding jobs. Industry, as a matter of fact, absorbed the entire 1950 class of 50,000.

Based on current college entrance rates and men in classes now, the graduating classes will drop to a low of 12,400 by 1954, which will mean a shortage of 40,000 engineers to fill peacetime requirements for in-

dustry alone.

The Korean war changed all that. Now the situation is so acute that one corporation has told a medium-sized engineering college that it will take its entire 1951 class sight unseen, at rates of pay 25% higher than the going rate.

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AERONAUTICS

"Flying Spray Tank" Tested for Crop Control

► A STUBBY little airplane which is not much more than a flying insecticide tank is being flight-tested at College Station, Texas.

Designed specifically for dusting, spraying, seeding or fertilizing farm crops, the new single-seat plane is the joint project of the Civil Aeronautics Administration, U. S. Department of Agriculture, Texas Engineering Experiment Station, Texas Agricultural Experiment Station and the National Flying Farmers Association.

Its gleaming metal fuselage and deep, blunt wings are built to hold hoppers and tanks for crop-control dusts and chemical sprays. With a payload nearly equal to the weight of the plane itself, it can take off from short, soft fields and fly relatively slowly with its wheels a few feet above the fields to be treated.

At the end of a run, it can zoom quickly to miss obstacles at the edge of fields, turn sharply and return with little wasted time for another pass.

These are characteristics which dusting and spraying pilots requested in a nationwide CAA survey preceding development of the new plane. A CAA contract for the plane was awarded in December, 1949. In less than a year the first prototype was in the air.

Two airplane manufacturers as well as the CAA, Department of Agriculture and University of Texas assigned personnel to work on the project. Many parts, including engine, propellers, landing gear and seat were contributed by their manufacturers.

The contributors included the Continental Motors Corp., Cessna Aircraft Corp., Aeronca Aircraft Corp., Cornell University Medical College (pilot protection), U. S. Rubber Co., Goodyear Tire and Rubber Co., McCauley Propeller Co., Koppers Co., Beech Aircraft Corp., Safe Flight Instrument Co., Vic Pastushin Industries, Inc., American Seating Co., (crash seat), and Aircraft Conversion Co.

Despite a gusty 30 to 40 mph wind, the first test flight of the new plane was a success. With a top speed of 115 mph, the crop duster can operate as slowly as 60 mph, landing without payload at 37 mph. It has a 400-mile range and if necessary can go as high as 12,000 feet. Full-span slotted flaps and ailerons give it high maneuverability at low speeds.

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INSECTICIDE TANK—This little airplane is designed especially for dusting, spraying, seeding or fertilizing farm crops. Fred E. Weick is shown opening one of the spray tanks.