

AVIATION

# Streamlined College Course Recommended for Pre-Training

## To Speed Training of Aviation Personnel, Committee Of Secretary of War Offers Plan for 12-Week Course

**S**TREAMLINING of college courses in mathematics, physics, astronomy and weather science to offer pre-training for the 450,000 new aviation personnel required this year and next for President Roosevelt's expanded aviation program is recommended in the report of a committee appointed by the Secretary of War.

The committee, which was nominated by the American Association for the Advancement of Science, consists of Dr. William L. Hart, University of Minnesota, Dr. W. M. Whyburn, University of California at Los Angeles, and Dr. C. C. Wylie, University of Iowa. They studied the problem of the ground training and preliminary training that might be given in high schools and colleges to insure an adequate flow into the armed forces of properly trained pilots, navigators, bombardiers and other aviation personnel. They observed the training in progress at Maxwell Field and other fields in the Southeast Air Corps Training Center.

The magnitude of this job facing educational institutions is revealed in an announcement by Dr. F. R. Moulton, permanent secretary of the Association, of the planned streamlined curriculum for colleges.

"The program of production of military planes which President Roosevelt announced two or three weeks ago (50,000 planes in 1942 and 125,000 in 1943) calls for at least a trained aviation personnel of 150,000 men this year and 300,000 next year," he said. "An unknown fraction of these requirements will have had a considerable part of the necessary college training and will enter the service directly.

"It will be of very great aid to the national defense to give as many of the remainder as possible most of their pre-training in educational institutions. If the numbers to be trained in schools should be half of the total required, or 75,000 and 150,000 in the two years, the number of classes would necessarily be enormous and the facilities of the universities would be taxed. Consequently,

it is important to start the courses at once in as many institutions as possible, partly to prepare men for the air service as rapidly as possible and partly to gain experience for a greatly increased effort. It is likely that many changes and improvements will be made in present plans under the teachings of experience."

The new college course as outlined by the committee can be telescoped into 11 or 12 weeks for students who have had advanced high school algebra and some solid geometry, the committee believes.

Emphasis throughout is on practical applications and manipulation. Theory is kept to the minimum necessary for understanding of the work.

In the plane trigonometry course, students will use a slide rule and each is

expected to possess a cheap one of his own. In solid geometry, proofs will be held to a bare minimum; great emphasis will be placed on the drawing of figures and making simple paper models for three-dimensional situations. In spherical trigonometry, emphasis will be on problems of latitude, longitude and the astronomical triangle on the celestial sphere; examinations will be of the "open book" type, the object being to give the student confidence later in the use of navigation tables. Problems of the navigator will be kept in mind in the astronomy and weather course. The physics course will not be of the theoretical type.

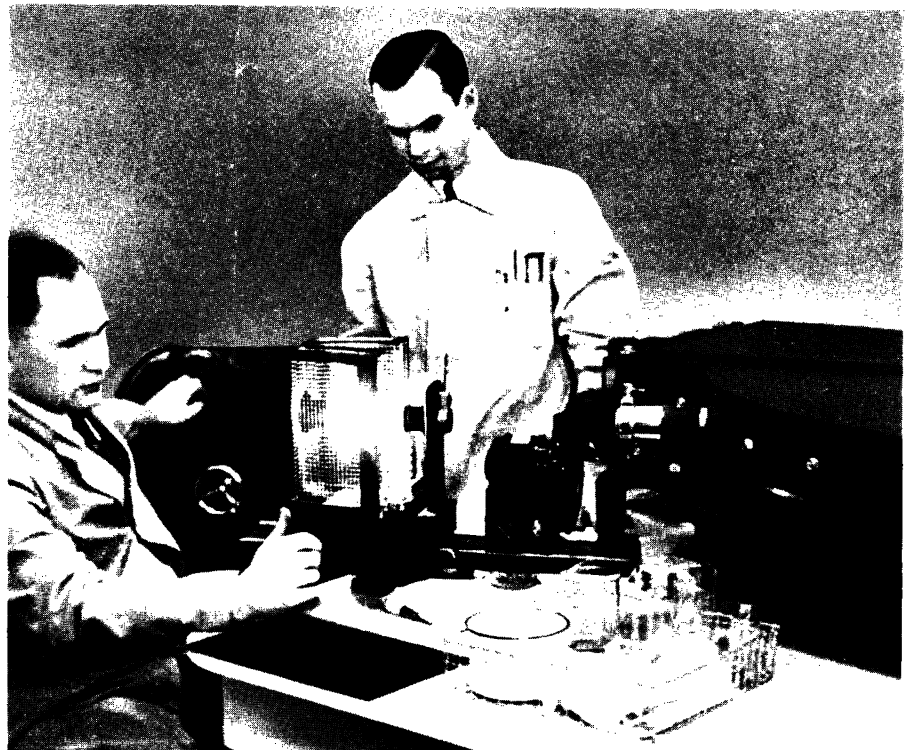
*Science News Letter, March 14, 1942*

PHYSICS

## Burning Diamonds Shows Why Some Fluoresce

**W**HY some genuine diamonds fluoresce or glow a brilliant blue, others a yellow and most of them not at all, when exposed to ultraviolet (or "black") light, was revealed by burning the precious stones in an electric arc.

This is the first time that so drastic a method has been used to determine the cause of fluorescence in diamonds



### DRASTIC TEST

*Burning a diamond in the electric arc to find out what it's made of. Standing, James M. Orr, and seated, Jack DeMent.*