SCIENCE NEWS

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THE ORGANIZATION OF SCIENCE

THE joint science committee of Army, Navy and leading research organizations, the formation of which has been made public, has as its aim the continued utilization of the talents of leading American scientists after the war is over, and they have been demobilized from the present emergency jobs and are back at their regular research tasks.

It is not expected that the Office of Scientific Research and Development, the principal channel for the direction of scientists' efforts toward victory, will be continued after the fighting stops. The thousands of research men and women now engaged in wartime tasks have the "go home" urge no less than the fighters overseas, and their work will be no less needed in building the peace-time America than it is now in helping to win the war.

Maintaining a big, centralized peace-time organization of scientists is not considered advisable by scientific leaders in Washington. Such an organization tends to become stiff and unwieldy—to use a hateful word, bureaucratic.

Two possible procedures are under consideration by the committee. Either can be used separately, or both may be used together. Both have been used successfully in furthering peace-time research programs.

One method is to have a small group of leading scientists who meet frequently, to lay out and supervise research projects. These may be carried out in laboratories under the direct control of the committee, or in government or independent laboratories. The pre-war work of the National Advisory Committee for Aeronautics, which is responsible for a considerable part of America's present leadership in the air, is an excellent example of this procedure.

The second method is to contract directly with universities and institutes of technology for definite research jobs to be done in their laboratories, utilizing their personnel and facilities. This method has been used a great deal, and with much success, by private industries and research foundations sponsored by industrial groups.

The newly organized committee is discussing definite plans embodying either or both of these methods, or possibly others that may be recommended.

ITEMS

THAT material is ejected from a faint double star, known to astronomers as HD 214419, with such force that its composition changes radically in less than twenty-four hours, is reported by Dr. William A. Hiltner of the Yerkes and McDonald Observatories of the Universities of Chicago and Texas in the *Astrophysical Journal*. The star is greenish-white of about the ninth magnitude and therefore invisible without the aid of a telescope. Located near the less-familiar constellation of Lacerta, the Lizard, in the northern hemisphere, the Wolf-Rayet star is very massive and is one of the hottest of heavenly bodies. Little is known about the companion star, but the more familiar component is made up largely of helium and nitrogen. The system varies periodically in brightness, although the Wolf-Rayet component has never been seen to be eclipsed. The variation is slight, however, and can be explained as due to reflection of the light of the other star on the Wolf-Rayet component. It is pointed out that "since the contribution by the companion star to the total light is appreciable, it is remarkable that no spectral features of the companion have been observed."

FLYERS returning from action overseas will have to unlearn much that they have been taught about aerial acrobatics. Acrobatics will not be permitted in this country, where they might endanger lives and property. Combat pilots and air crews will receive a special training course in the principles of flying safety before they are reassigned to active flying duty. The course includes a review of regulations governing the operation of aircraft in the United States and air traffic rules. The course will be given at three Army Air Force redistribution stations, two on the Atlantic coast and one in California. In inaugurating the new policy, General H. H. Arnold, Commanding General, AAF, stated "Flying safety in this country shall have first consideration, and unsafe flying habits acquired in combat must be forgotten. Violations of flying regulations will not be tolerated."

THE Navy's new thin-film rust preventive keeps landing craft ready at all times for the "go ahead" signal. The new preventive protects engines and other vital moving parts against damaging corrosion which might result during construction and long ocean voyages and from local climatic conditions in widely-separated fighting fronts. Thin-film treatments, developed by the Navy Department's Bureau of Ships and the Bureau of Aeronautics, have a remarkable ability to displace water from metal surfaces, and do not have to be removed from the treated surfaces of engines and moving parts before the craft are placed in service. The actual compositions of the new thin-film compounds are not revealed at the present time. Thin-film coatings do away with the old time-consuming process of removing "thick" coatings of ordinary grease before vessels are placed in service.

FOUR steps to avoid dangers resulting from the formation of hot engine sludge in motor vehicles were recommended by H. C. Mougey, of the research laboratories of the General Motors Corporation, at the national transportation and maintenance division of the Chicago meeting of the Society of Automotive Engineers. The four steps include the application of oil filters to remove the sludge as it forms; adequate temperature control to prevent excessive heat which causes oil oxidation and sludge formation, without permitting engine temperatures to get so low as to form low-heat sludge; frequent crankcase draining to prevent sludge accumulations from becoming too large; and the use of high quality, heavy-duty oils that have good resistance to oxidation. When these oils are drained, they carry away much of the sludge and leave a comparatively clean engine.