

GENERAL SCIENCE

# Guided Missile Research

Dr. Karl T. Compton leads the Joint Research and Development Board committee studying research and development programs on guided missiles.

► PLANNING for the nation's research and development programs on guided missiles is being done by a Joint Research and Development Board committee under the temporary chairmanship of Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, the board disclosed.

The committee, which includes both civilian and military scientific leaders, is charged with the "continuing study, evaluation, improvement, and allocation of research and development programs on guided missiles in relation to the overall aims of the national defense effort and to the available and potential store of scientific information, personnel and facilities, leading to the formulation of an integrated program in this field," it was stated.

Each of the four Army and Navy groups which have been most concerned with the guided missiles program is represented on the committee by high-ranking officers. They are Vice Adm. A. W. Radford, deputy chief of Naval Operations for Air; Vice Adm. G. F. Hussey, Jr., chief of the Navy's Bureau of Ordnance; Brig. Gen. A. R. Crawford,

of the Army Air Forces; and Brig. Gen. H. B. Saylor of Army Ordnance. In addition to Dr. Compton, civilian members of the guided missiles group are Dr. H. L. Dryden of the National Bureau of Standards and Dr. E. R. Gilliland of the Massachusetts Institute of Technology. Four officers have been designated deputies to the Armed Forces representatives, while six associate members and two alternates were also named from the Army and Navy.

The Joint Research and Development Board, of which Dr. Vannevar Bush is chairman, was created last August as an inter-service coordinating group for scientific research and development and is an agency of the Secretaries of War and Navy. Prior to its establishment, the Joint Chiefs of Staff appointed a Committee on New Weapons and Equipment, with responsibility for the coordinating work. Under the chairmanship of Dr. Bradley Dewey, this group made recommendations on guided missiles which have been turned over to the new group.

It was revealed that the committee on guided missiles held its first meeting Dec. 19.

*Science News Letter, January 25, 1947*

ENGINEERING

## Oil Field Brines May Yield Magnesium

► OIL FIELD brines may be expected as a source of magnesium, the American Society of Civil Engineers was told by Ogden S. Jones of the Kansas State Board of Health.

These brines come in drilling for oil wells when deep-seated salt waters are tapped. They may have concentrations of chlorides and solids of from six to seven times that of sea water. The accepted practice where such brines are now raised to the surface is to put them deep under ground in special wells so that they will not pollute fresh water streams.

It would require 400 barrels of chlorine-free water to dilute one barrel of this brine so that it would comply with

the standards of the U. S. Public Health Service, Mr. Jones said.

After describing various methods utilized for the disposal of brine, mostly without any attempt to salvage the salts contained, Mr. Jones warned that the water supply of the nation is not limitless. We are using more water than formerly and putting less back into the ground. This condition cannot keep up indefinitely, he said, urging a program of water conservation and public action to prevent stream contamination.

The need of a federal law to coordinate the activities of the state stream pollution control units was stressed by Don E. Bloodgood of Purdue University. Nearly 100 bills have been introduced into the Congress in the past 50 years, he said, but none has passed due to the failure of conservationists and public health officials to agree.

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PHYSICS

## Electronic "Stopwatch" Times Atomic Particles

► THE SPEED of atomic particles can now be measured to one thousandth of a millionth of a second. A new electronic "stopwatch" developed in Yale University laboratories measures intervals as brief as that.

In addition to measuring the speed of atomic particles, it counts them also, and determines the energy of the charged particles in nuclear reactions. It is a combination of conventional radio vacuum tubes and other standard electrical equipment.

Its operation depends upon the synchronization of electrical counters which detect an electrical pulse in the circuit. The timing is accomplished by measuring the amount of delay inserted in the circuit in order to synchronize the counters.

*Science News Letter, January 25, 1947*

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