

# news in brief

## **New Nike-Zeus Contract To be Directed by Laboratories**

Bell Laboratories will direct the work for a \$199,125,000 contract recently awarded to the Western Electric Company by the Army for continued development of the Nike-Zeus anti-missile missile system.

Included in the contract are funds for continued engineering, installation, and operation of equipment required in the development and test program. The Nike-Zeus system, now in the advanced development stage, is being tested at the White Sands Missile Range and at the Whippany Laboratory. Additional future tests are planned at Point Mugu, California, Ascension Island in the Atlantic, and Kwajalein Island in the Pacific.

A major portion of the work will be performed at the Western Electric plant in Burlington, N. C. Many subcontractors and suppliers will share in the work specified by this contract.

The Nike-Zeus system uses advanced radars and electronic computers to detect and track incoming ballistic-missile warheads, and to discriminate between real warheads and decoy devices. It can launch and control Nike-Zeus missiles to intercept the attacking warheads and render them ineffective without causing damage to defended areas.

## **New Dimensions in Spring Cords**

A new development in station apparatus, the "slim-line" spring cord, is a result of joint efforts by the Western Electric Co. and Bell Laboratories engineers at

Western's Baltimore Works. Smaller in diameter than previous spring cords, it also weighs less, is more attractive, and will have a longer service life.

To manufacture the slim-line cord, a single nylon thread "core" is first spirally-wrapped with four flat ribbons of bronze "tinsel." Each bronze ribbon is about as wide as the thread itself and only one-third the thickness of a human hair. For strength, a nylon jacket is knitted over the tinsel plastic. A complete cord has four of these insulated conductors combined into one unit and jacketed with thermo-plastic.

A great saving in production costs is made by using nylon instead of cotton in just two steps of manufacture. Although the new slim-line cord is only about three-hundreds of an inch thinner than the older model, the saving in raw materials will be extensive since more than 17 million spring cords will be made by Western Electric this year.

## **TASI Aids in Doubling Capacity of Ocean Cable**

The TASI system, developed at Bell Laboratories, has helped to more than double the traffic capacity of the undersea cable between Newfoundland and France.

TASI, an acronym for "Time Assignment Speech Interpolation," was first put to use earlier this year on the telephone cable to Great Britain.

The Long Lines Department of the A.T.&T. Co. announced recently that the call-carrying capacity of the deep-sea circuits was boosted by the installation of 3-kc channel banks (RECORD, July, 1960) and by the addition of TASI (RECORD, March, 1959).