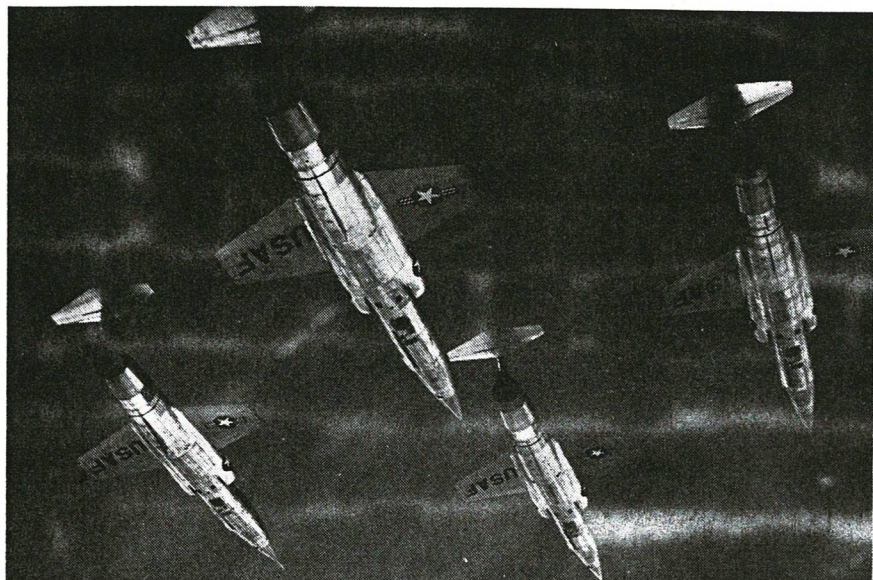


# Missileanery



**MISSILE-MOUNTS!** Lockheed F-104A Starfighters pose for the first time in formation. They will carry air-to-air Sidewinder missiles on their wing-tips

## British Nuclear IRBM Under Development

Named prime contractor for the intermediate-range ballistic missile being developed in Britain is de Havilland Propellers Ltd., Hatfield, Herts. The company is also the co-ordinating authority for construction of the missile, with Rolls-Royce Ltd., the de Havilland Aircraft Co., and the Sperry Gyroscope Co. Ltd., as associated main contractors. Claimed that the ground-launched missile will carry a thermo-nuclear warhead "with extreme accuracy" over a range of several thousand miles to a surface target. Test facilities are being established at several centres in the U. K. for the initial testing of the missile's components. Large steel towers have been erected at the headquarters of de Havilland Propellers at Hatfield, and Rolls-Royce are building a facility for testing the rocket motors in Cumberland. Firing trials will be at Woomera, Australia.

## Business Breakdown

Small firms have received more than 20 percent of the ballistic missile dollars spent by the U. S. Air Force. Of the Thor IRBM contract held by Douglas Aircraft Co., some 23 percent, or more than \$18 million, has been distributed among 8,473 different small companies.

## Metal For Missiles

New nickel-chromium based alloy developed by the Allegheny Ludlum Steel Corp., Pittsburgh, is designed for applications in aircraft and missile engines requiring high strength at up to 1,600 degrees Fahrenheit.

## Bullpup In Production

The Bullpup air-to-surface guided missile, produced by the Martin Co., has gone into production at Orlando, Fla. Development was begun three and a half years ago. In recent test a U. S. Navy pilot destroyed a 4-in.-square smoke pot in the North Atlantic from two miles range with a Bullpup.

## Missile Freighter

A Bristol Bloodhound ground-to-air missile was transported by air during a recent exercise in Britain. Aircraft used was a Blackburn Beverly freighter of 53 RAF Squadron. Bloodhounds have been carried aboard Bristol Freighter aircraft in Australia.

## Launcher For Drones

The Lockheed C-130 transport has been designated as a universal drone launcher by the USAF. Plane will also be used as the control "office" to direct drone launching manoeuvres, as well as the support aircraft for transporting personnel, the drone operating unit, and other equipment. Two airplanes are to be adapted for test purposes.

## Tartar For U. S. Navy

Convair Division of General Dynamics Corp. has been awarded an \$8-million contract for pilot line production of Tartar surface-to-air missiles. A junior version of the Terrier, Tartar will be used on U. S. Navy destroyers.

## Missile and Aircraft Attack Simulator

Electronic system designed to test North American defenses against aircraft and missiles has been demonstrated to the USAF by the Sperry Gyroscope Co., Division of Sperry Rand Corp., Great Neck, N.Y. It comprises a microwave command system designed for use with supersonic drones. System is being developed under contract to the Air Research and Development Command. It is said to enable a control team on the ground or in the air to track a drone, command its engine and flight controls, and receive flight data. These functions are carried out on a single radar frequency band.

## New Missile Division

Establishment of a new unit to be known as the missile equipment division is announced by Minneapolis-Honeywell Regulator Co. This will consolidate Honeywell interests and activities in ground missile facilities in one unit of the military products group. Carl A. Anderson, vice-president of Honeywell's Aeronautical Division in Canada, said the establishment of the new unit increased the scope of the experience and ability upon which the Canadian division can draw. New division is located initially in a 150,000-sq.-ft. plant at Pottstown, Pa.

## Re-entry Breakthrough

Re-entry of the ballistic missile cone was first achieved in the U. S. using the Lockheed X-17 test vehicle more than a year ago. Since that time more than 20 nose cones have survived the extreme heat generated by re-entry into the earth's atmosphere. Two of the missile's three stages are used to accelerate the downward plunge into the earth's atmosphere. A telemetering system aboard the missile transmits data on speed, temperature, pressure and other information almost to the point of impact with the earth. The nose cones impacted off the coast of Cape Canaveral.

## Bomarc Firings

Boeing Airplane Co. revealed that a total of 39 Bomarc interceptor missiles have been fired during the current test program. In the majority of tests the missile has been fired without warhead so that the space could be utilized for instrumentation. Tests will begin soon on an advanced version of the Bomarc for the USAF. This will have a 400-mile range, twice that of the earlier version. The new test program, to comprise a further 35-40 firings will be spread over a period of several years.