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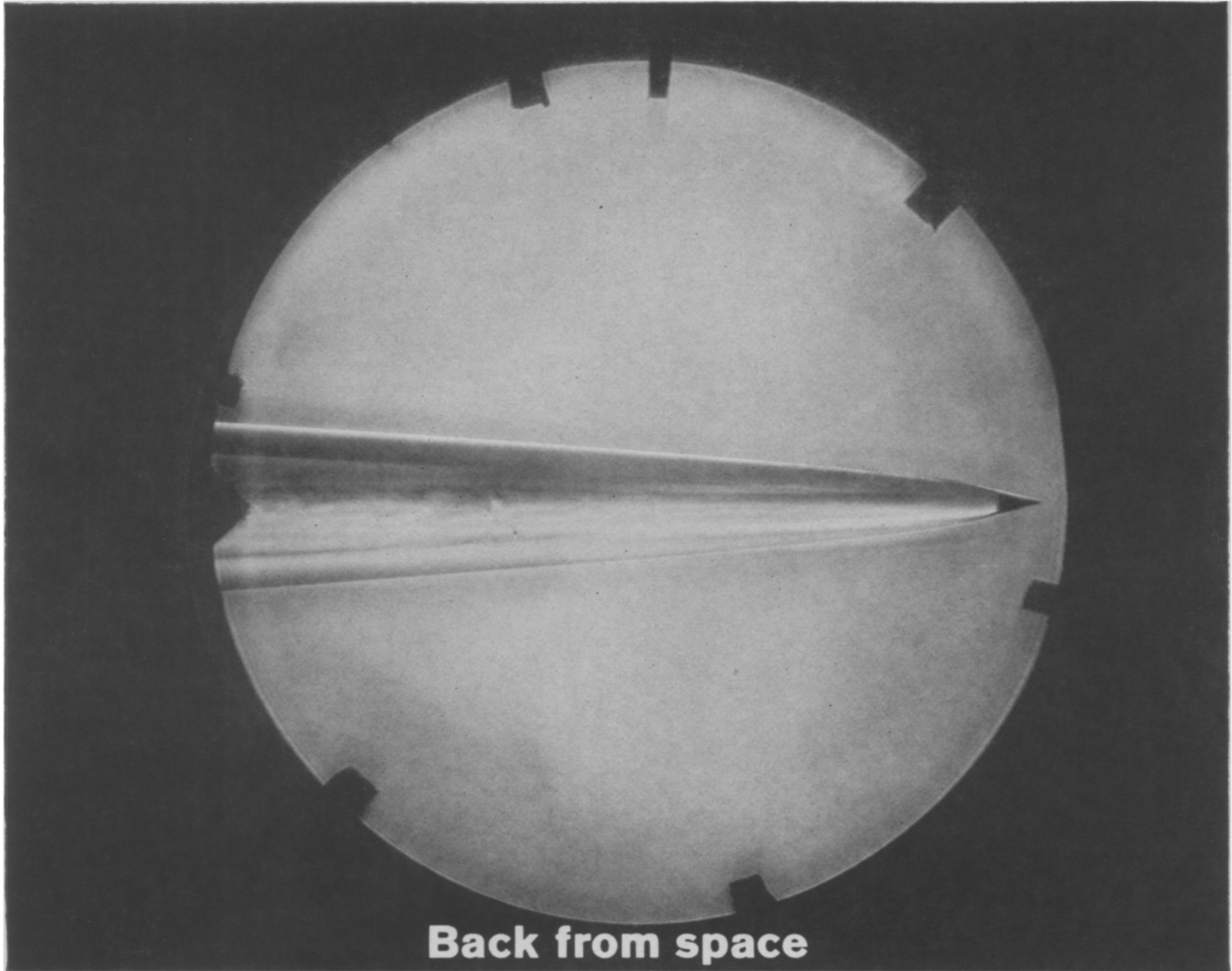


FEBRUARY 10 1968/VOLUME 93/No. 6 P. 129-152

SCIENCE NEWS

next year's
science budget

India's
Biological
Program



Back from space at 17,000 mph.

Gun powder—100 pounds of it—explodes and fires a torpedo-size piston down a 10-inch tube, compressing hydrogen gas in its path. The piston rams into a tapered coupling, triggering a valve that releases the gas, now compressed to more than 100,000 pounds per square inch. In turn, the gas launches a re-entry vehicle model down a 650-foot-long instrumented range in an environment that simulates space. Speed: 25,000 feet per second. Then, in a split second, it's all over.

With this light-gas gun, GM scientists are making pioneering laboratory studies of spacecraft and missiles moving above and below re-entry velocities of 17,000 mph. Radar signatures of the models are analyzed from data recorded during the tests and photographs (above) of their wakes and air flow structures. The information obtained will help improve techniques & systems for the detection and identification of missiles and spacecraft in flight.

Other setups and smaller light-gas guns are used to uncover new facts about meteoroid impact on spacecraft and a whole universe of space-related problems. And every one of them puts another milestone on man's road map to the stars.

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NOTE: This advertising is being sponsored by General Motors in several youth publications. It is hoped that the subjects featured will serve to increase teen-ager interest in scientific studies and can be used, perhaps, to show how the things your students are learning are utilized in actual industrial activities. Reprints of this ad are available upon request. Simply write to General Motors, Advertising & Merchandising Section, General Motors Building, Detroit, Michigan 48202.

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