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## An Account of Experiments in Which Two Monkeys Were Recovered Unharmed after Ballistic Space Flight

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**O**N Friday, December 13, 1958, at 0338:44, EST, a Jupiter missile was launched on a ballistic trajectory carrying a squirrel monkey 300 miles into space. (Fig. 1). Telemetered information indicated that the monkey was in good condition until loss of signal at re-entry indicated a mishap. The nose cone was not recovered. Although a primary objective, recovery of the animal was not accomplished, yet much was learned, and the second experiment was anticipated with confidence.

On Thursday, May 28, 1959, at 0235:02, EST, another Jupiter missile

carried two monkeys on a similar ballistic trajectory to a selected target area, a distance of 1500 miles. This time, two separate biocapsules were prepared, one containing a squirrel monkey and the other an American-born rhesus monkey. Telemetered information indicated that the animals survived the stresses incidental to boost, free flight, and re-entry in good condition. The nose cone was recovered, and both monkeys emerged from their "closed environment" alert, hungry, and not obviously harmed by the experience.

No words of amplification or embellishment are needed to establish the success of the experiment, a success which reflects back on the bio-technical preparations and forward to the ultimate step of sending man aloft.

What follows is an account of the biologic aspects of these two experi-

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ments which were carried out by a team of medical and allied scientists selected by the surgeons general of the U. S. Army and Navy, and the commanding general of the Army Ballistic Missile Agency. The reports of bio-engineering specialists will be found elsewhere. What has not been placed on record is the story of how the efforts of a large number of persons were coordinated in time and

space in a new and difficult undertaking. Many men of good will, and with a willingness which knew no fatigue, must go unnamed. Their reward comes from an inner satisfaction of accomplishment. Here it must suffice to acknowledge the great help received from the Army Ordnance Missile Command, the Caribbean Sea Frontier, and the medical departments of the U. S. Army and Navy.