TECHNOLOGY

Troops Travel by Rocket

Infantry troops may soon be traveling by a revolutionary new vehicle: individual, small rockets, powered by solid propellants that can shoot them across rivers and obstacles.

➤ INFANTRY troops can be "shot" across rivers by small rockets attached to their backs, Army Engineers have revealed.

A modification of the revolutionary rocket development may also carry light jeeps and heavy tanks across most rivers without need for boats or bridges.

The personal rockets, dubbed "Buck Rogers" because they look and act like the device used by the comic strip character, also are expected to be useful in combat away from rivers by turning troops into "human grasshoppers," able to cover 100-yard distances "almost quick as a flash," Army officers told SCIENCE SERVICE.

Troops carrying the small rocket engines on their backs approach a battle area cautiously, then, at the push of a button, cover the final 80 to 100 yards with a tremendous burst of speed through the air, and "come up fighting," the officers explained.

"This development will give the foot soldier the greatest element of surprise and maybe the greatest tactical advantage ever introduced into warfare," an officer said.

"It will be just like making every foot soldier a jet-propelled grasshopper," he said.

Another officer compared the new device with a "human cannonball" shot from a cannon at a circus.

"It would be just like having thousands of man-firing cannons at the front lines, without the problems involved in transporting and positioning the cannons," he said.

"The new device actually is not as unbelievable as it sounds at first," a highly placed official stated, "when it is remembered that already we have under development personal helicopters that can be fastened to a soldier with a harness."

He implied the rocket device would be more efficient, much faster and considerably cheaper than the back-strapped helicopters.

The "Buck Rogers" will use a solid propellant rocket thrust to transport men "almost instantaneously" over distances up to 100 yards at a maximum altitude of 20 feet.

Under most combat conditions the "hops" will cover 50 to 80 yards at an altitude of "less than 16 feet," high enough for the troops to clear most obstacles, but not high enough to cause injuries upon landing.

Although engineers are confident the device will prove itself to be safe, they expect that troops using it will have to undergo special training similar to paratrooper conditioning.

"There probably will be quite a shock upon impact, and these men will have to be taught to come up fighting," an officer said.

Army tacticians view the potential surprise element offered by the devices as an outstanding advantage, but even greater in importance, they say, is that the small rockets will carry infantry troops across many of the earth's waterways.

An immediate modification, officers said, is that more powerful rockets can be attached to vehicles with closed bottoms, such as tanks or jeeps with steel "surf boards" bolted underneath.

The vehicle would enter the water at the highest practical speed. As soon as the driver felt a loss of speed the rockets would be fired and the vehicle would "skim" the remainder of the way across the water.

Science News Letter, June 7, 1958

STRATOSPHERE CHAMBER—Tests simulating conditions ranging from sea level to 100,000 feet can be carried out in this stratosphere chamber of the Royal Radar Establishment at Malvern, Worcestershire, England. A radar scanner is being tested.

PUBLIC HEALTH

Home Accidents Take High Six-Month Toll

➤ HOME ACCIDENTS injured 10,065,000 people, 40.3% of all those injured during the last six months of 1957, a report issued by the U. S. Department of Health, Education, and Welfare states.

The report includes only those accidents which injured Americans enough to require medical attention or to limit their activities for at least a day. The report reveals that of the 25,000,000 citizens injured during the six-month period, the home was the location of the highest percentage of accidents.

Approximately 17%, or 4,173,000 persons, were injured at work. Motor vehicle accidents injured 9.8%, or 2,444,000 persons. Other kinds of accidents and injuries resulting from violence accounted for 33.1% or 8,267,000 injuries.

Science News Letter, June 7, 1958

ENGINEERING

Midget Wind Tunnel Built For Wide Range Testing

➤ A MIDGET wind tunnel, costing less than $50,000, has been built in less than four months.

The new facility, Dr. Milton U. Clauser, vice-president and director of Space Technology Laboratories, a division of the Ramo-Wooldridge Corporation, reported, is housed in three sections. These are: a 16-by-32 foot building containing the tunnel test section and instruments, a 7-foot diameter vacuum tank only 16 feet long, and a 9-foot diameter storage tank 25 feet high.

In operation, air is pumped into a 500-cubic-foot rubber bag in the storage tank, and released through the tunnel into the vacuum tank. The test period is automatically terminated after ten seconds.

The new device was built for the Air Force Ballistic Missile Division of the Air Research and Development Command, and will be used to determine airflow in magnetic fields, Dr. Clauser said. Tests can be conducted at up to three times the speed of sound.

Science News Letter, June 7, 1958