

ROCKETS STIR REICH

Professor Oberth Plans Big Test
in Ten Days, but Keeps
Date From Crowds.

EXPECTS 50-MILE ALTITUDE

If Successful in Test, He Hopes
Then to Shoot Mail Here
in Thirty Minutes.

By WYTHE WILLIAMS.

Special Cable to THE NEW YORK TIMES.

BERLIN, Nov. 7.—The rocket problem, or the transportation of both movable and static objects through space by means of apparatus propelled by the recoil principle, has become very acute in Germany as a result of the recent announcements that experiments would be carried out by the eminent scientist, Professor Oberth, on a small island in the Baltic.

The "moon professor," as Herr Oberth has been popularly nicknamed, still is keeping the date secret when he intends to launch his first rocket into space, on account of the danger which may be involved for the spectators, who threaten to be so numerous as to necessitate special trains from Berlin. The authorities are now devising bomb-proof shelters such as were used in wartime, and also will insist that the crowd remain at a considerable distance.

There is possibly more danger in starting the rocket than in landing, according to the inventor, who contends that a parachute attachment will enable it to land gently at the exact point desired.

With his first rocket Professor Oberth hopes to register an altitude of at least fifty miles, or well into what he refers to as "planetary space." Professor Oberth's experiments are to be made with three kinds of rockets, one rising vertically from earth, another for long distance and the third a "space rocket."

Sub-Classes of Rockets.

In the category of vertical rockets he includes a meteorological registering rocket and a reconnoitring rocket. In the long distance classification he distinguishes between his "geographic rocket" and a "mail rocket."

As soon as his first experiment is completed he seriously intends to prepare a rocket to transmit mail from Berlin to New York, which he believes can be accomplished in thirty minutes.

Professor Oberth is not so enthusiastic concerning the practicability of rockets for either airplanes or automobiles. In fact, he declares that the rocket instead of being a method for transport must be "transport itself," which means, according to his explanation, that any one attempting to get anywhere by rocket force must ride inside the rocket rather than in any form of equipage to which a rocket is attached.

For the mail rocket which Professor Oberth estimates can land on a spot 4,000 miles away, he will use a liquefied fuel, a mixture of benzine and liquefied oxygen.

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Quick Start Aids Efficiency.

The fuel consumption of a rocket depends on the length of time and force with which the rocket is allowed to burn. The efficiency of the recoil, on the other hand, depends also on the route taken by the rocket while discharging. The fuel yields efficiency in proportion to the speed gained by the rocket while burning. According to minute calculations tabulated by Professor Oberth, the most practical size for a space rocket is about thirty feet in length by eight inches in diameter. On the upper end is the rocket head, containing a distributor stove, a gyro-compass with relays operating the steering planes on the outside, and a number of registering devices. The middle part, the rocket proper, contains the fuel supply, while the lower end is equipped with stabilizing planes. The rocket structure is such that it will weigh about 120 pounds and in addition can carry sixty pounds of mail. The amount of fuel weight will amount to ten times that of the freight.

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Low Estimated Cost.

Professor Oberth estimates that a rocket body can be used about 100 times. Fuel for a journey from Berlin to New York he estimates at about \$25, and as about 1,300 letters can be conveyed on each trip the "rentability" of rockets for postal departments is obvious.

According to Professor Oberth, he has obtained a patent license for a new fuel, "nozzle," the application of which will reduce the amount of fuel needed, which will result in considerable economy as well as give room for more mail.

As far as the public is concerned, Professor Oberth stoutly contends that rocket mail involves no greater dangers than railway, ship or motor transportation. The parachutes on all of the Oberth mail rockets will be equipped with optical signals, and the inventor asserts that he can aim the rockets so accurately that they will land within two miles of a given point on the other side of the Atlantic. As the rockets are intended to arrive at their destination with a precision figured down to seconds, the arrival can be accurately observed at the receiving end without difficulty, he is convinced.

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Direction Control Explained.

The direction of flight of the rockets are regulated by special relays. These relays are connected with the gyroscope on the rocket-head as well as with the oxygen tanks. They begin to operate instantaneously when

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the rocket involuntarily changes its direction of flight.

The initial test, which the inventor says will not be delayed longer than another fortnight, is primarily for the liquid fuel, which admittedly is such a new process as to make precautions necessary in the way of safeguarding the spectators, which probably would not be necessary with the old form of powder rockets with which all previous experiments have been made.

Although Professor Oberth's plans may still sound like highly imaginative theories, it is an incontestable fact that leading German scientists have now passed the scoffing stage and are paying close attention to all reports from the Oberth laboratories. For, as it is well argued, should his practical experiments prove successful, they will undoubtedly exert a tremendous influence upon human existence.