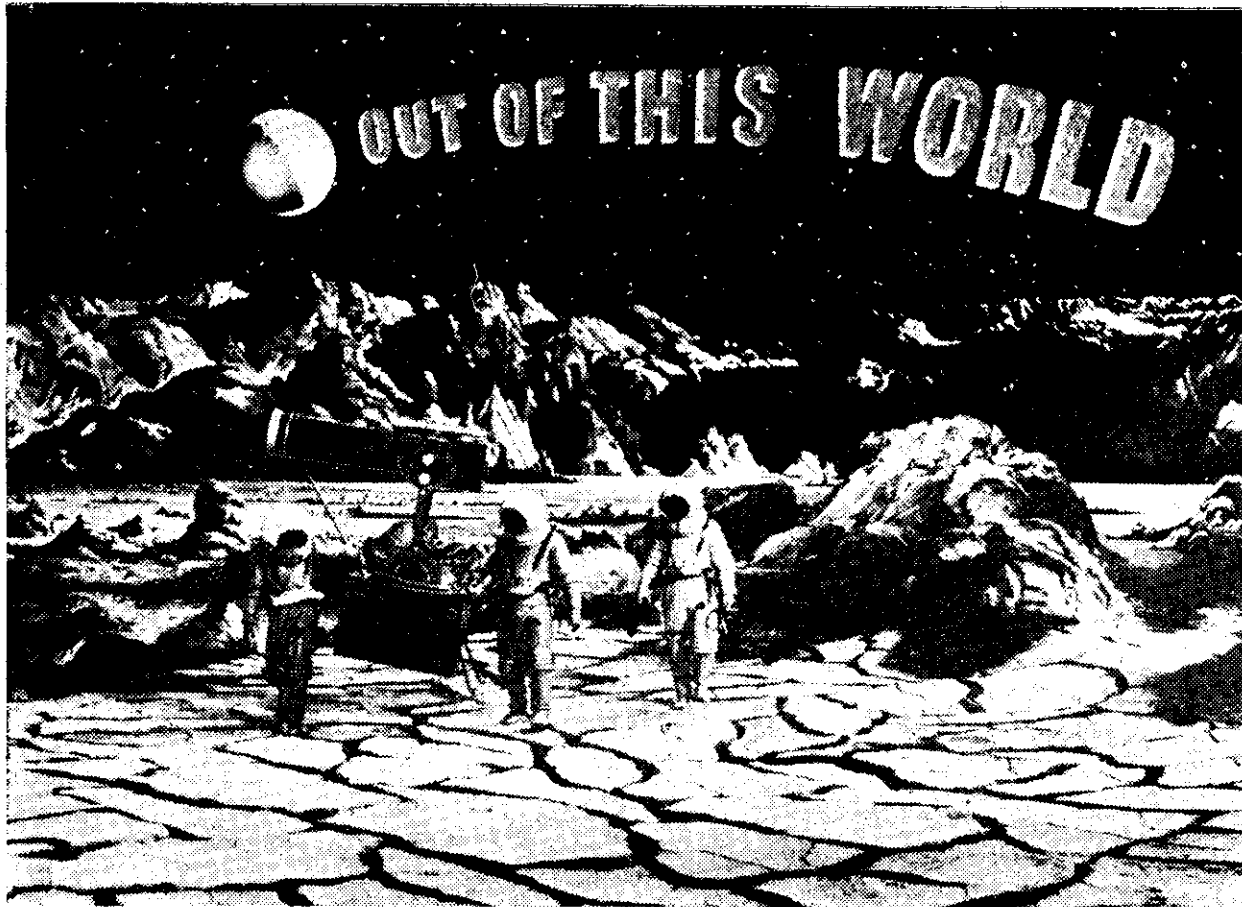




ROCKET ships, space travel, interplanetary flight: what reaction do these words invoke? The most likely and natural response is probably to think of them as the dreams—or maybe nightmares—of some crazy scientists. Space travel seems impossible, or at any rate, is so remote as to be unattainable in our lifetime, and therefore of little personal import. Yet are we justified in taking so “remote” a view of the present stage of development? A review of the activities of scientists at present studying the problems of the mechanics, dynamics, metallurgy and the physiological and psychological aspects of space flight, will show that we must begin to get into the frame of mind which is prepared to accept these things.

This is not going to be easy, as we have proved on numerous occasions our inability to believe in something outside our knowledge. Before the dawn of the railway era, the view was expressed, not by a layman, but by a learned scientist, that the human frame would not stand travel at more than sixty miles an hour. How wrong that has been proved to be! We have seen flights of over 1200 miles per hour with no ill-effects on the pilot. We have grown to accept, as normal, flights by airliners at speeds which even as late as the mid-war period were beyond the reach of the fastest fighter aircraft. Now we are asked by the scientists to visualise flights in space ships which, to leave the earth's gravitational sphere, must go beyond 25,000 miles an hour. All of this, to us humble folk, used to our Dakotas, seems sheer lunacy. Is it really any more fantastic than the Comet would have appeared to the scientist previously mentioned who gave such a pessimistic view of the physiological speed limit?

There is no doubt at all that interplanetary travel will come. But how

soon? In trying to assess the present position history is of little value, but it is interesting to recall that in 1866 a party of experimenters banded together and formed the Aeronautical Society of Great Britain. These men were convinced that aerial navigation was possible, and it was 37 years later that the Wright Brothers made the first flight in a power-driven man-carrying aircraft. In 1933 the British Interplanetary Society was formed, and probably it could be said that the short exploratory flights which have been made into space by unmanned rockets have brought astronautics to a similar stage in development that aviation had reached shortly before the Wrights' first successful flight.

Gatland and Kunesch* tell us that on June 5, 1927, a small group of German enthusiasts founded a society, known as Verein für Raumschiffahrt, devoted to the study of space travel. Among those present at this historic first meeting was Willy Ley, later to become an American citizen. In 1950 the international aviation magazine *Interavia* printed an article by Willy Ley entitled “The Shape of Ships to Come.” Discussing the various planets which might be visited, he says: “The Moon, of course, will be the first. And if things progress on the accelerated curve which has held true for the last 25 years, somebody may get there in 1975.” It is emphasised that this is not the work of a thriller writer but the considered opinion of a brilliant scientist, who has spent his entire working life experimenting with rockets.

It seems that the greatest obstacle facing the scientists may well remain so for some considerable time, and that is the familiar one of finance.

Gatland and Kunesch, whose book is described as an illustrated survey of the

*SPACE TRAVEL, by Kenneth W. Gatland and Anthony M. Kunesch; Allen Wingate, English price 15/-.

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problems and prospects of space travel, give a most comprehensive history of the experiments with rockets from the middle of the 13th Century to the present day. World War II saw Germany well in the lead in the field of rocket weapons. Speaking as one who was uncomfortably close to the receiving end of some of the V2 rockets, and who saw the exhibition of German experimental rocket weapons in 1946, I feel that perhaps it is as well the war ended when it did.

At the end of the war some of the German scientists went to America and some to Russia, where they are continuing their studies. Little is known of the activities of the Russians, but there is a large and ever-growing volume of reports from America. Here the various problems are being systematically and energetically probed. For example, there is the Medical Acceleration Laboratory, where a huge “centrifuge” has been built to study the effects of the high acceleration forces on the human body. This looks rather like the ultimate dream of the fairground proprietor, as the subject—in a gondola at the end of a long arm

For younger listeners with an interest in outer space, the ZB stations will shortly be broadcasting a new serial entitled “Space Cadet.” Willy Ley, the rocket expert mentioned on this page, is the show's technical adviser. The new feature will be broadcast on Tuesdays and Thursdays at 5.45 p.m., beginning from 1ZB on December 10, 2ZB December 22, 3ZB December 31, and 4ZB January 12.



The picture on the left, and that on the cover of this issue, are from the film “Destination Moon” (shown here in 1951). It was commended by experts as a reasonable forecast of what such a journey might be like

—is whirled round at high speed. Instruments record the effects on his body. Then there is a series of experiments proceeding in which mice and monkeys are sent aloft in rockets while cameras record their behaviour at great speeds and altitudes.

Space Travel includes a photograph of a monkey, none the worse for his experiences, examining the nose cap of a rocket in which he travelled to a height of 40 miles. This is more than twice as high as man has yet flown. This particular flight indicates that the problem of the physiological effects of cosmic radiation may not be the insuperable barrier previously supposed. Admittedly the flight was comparatively short, and the results cannot be regarded as conclusive, but it is hoped that longer flights now planned will confirm this indication.

Slowly but surely the questions are being answered, and the fund of knowledge is growing steadily towards the point when it will be deemed safe to launch a manned rocket into space. Other scientific discoveries, too, are playing their part, as, for example, the work on nuclear energy.

The development of aeroplanes became possible only when a suitable power plant was produced, and in the same way the production of a successful “atomic engine” would bring the astronauts' dream much nearer fulfilment.

While all this is going on it is useless our burying our heads in the sand of disbelief or disinterest. Man stands very near to the gateway to space, and before very long he will have made the first tentative explorations in the new medium. It is useless to argue why, or to ask what it is hoped will be gained by going to the Moon, or Mars, or Venus. Man must accept the challenge—exactly the same challenge which made him build sailing ships and set out over uncharted seas into the unknown.

It is interesting to note that the flying saucer has once again become news and that, according to Reuter, the United States Air Force is beginning to suggest hesitantly that flying saucers could be interplanetary.

While we of this generation are struggling hard to accept all this, the rising generation is being brought up on Space Men thrillers, Ray Gun toys and the like. Even these things, if they bring about a more ready acceptance of what the future has in store, will have played a not inconsiderable part in moulding what is known as “Progress.”