Books

Introduction to Space

by Lee A. DuBridge

Columbia University Press . . $2.50

Reviewed by James D. Burke, deputy director of the Jet Propulsion Laboratory spacecraft program.

This brief book contains the four inaugural George B Pegram lectures given by Dr. DuBridge last fall at the Brookhaven National Laboratory. The lectures deal in non-technical terms with trends in the relationship of science and society. Dr. DuBridge begins by setting out some physical and engineering facts of rocketry, together with a short account of the U. S. Army space program in which the von Braun team and Caltech's Jet Propulsion Laboratory collaborated to launch the first American satellite and the first American escape vehicle.

In the second lecture Dr. DuBridge considers the kinds of scientific measurements that can be made using space vehicles, and some of the associated problems such as power supply, communications, and reliability and long life of equipment. The author also mentions military uses of space vehicles; some readers may draw unwarranted inferences from his mild lampooning of superficial ideas in this area. He then tells the story of the discovery of the great Van Allen radiation belts about the earth.

In the third and fourth lectures Dr. DuBridge takes us outward to the moon and planets, and finally to stars, galaxies, and the question of the origin of the universe. It is in these final sections that he best communicates the wonder and excitement that lie in store for us as we learn to probe the nearby bodies, to look for extraterrestrial life, and to search deep into space using astronomical telescopes placed outside the atmosphere.

Anyone familiar with Dr. DuBridge as a lecturer will recognize his lively style. Together with the plentiful illustrations, the lectures create a pleasing little book. The language is purposely elementary and many readers will find nothing new, but the subject is rich in fascination and the story well bears repeated telling.