

Robert Johnson, Missile and Space Systems Chief Engineer, reviews results of a THORboosted 5000 mile flight with Donald W. Douglas, Jr., president of Douglas

Missile is space veteran at the age of three

The Air Force THOR, built by Douglas and three associate prime contractors, shows how well a down-to-earth approach to outer space can work. Since its first shoot in 1957, it has been the booster for programs like *Pioneer, Discoverer, Explorer, Transit*, and *Delta* and has launched more than 87% of all successful U.S. space satellites.

Initial planning for THOR included volume production tooling, ground handling equipment and operational systems. This typical Douglas approach made the giant IRBM available in quantity in record time, and THOR has performed with such reliability that it has truly become the workhorse of the space age.

Douglas is now seeking qualified engineers, physicists, chemists and mathematicians for programs like ZEUS, DELTA, SKYBOLT, GENIE, ANIP, SATURN, MISSILEER and others far into the future. For full information write to Mr. C. C. LaVene, Douglas Aircraft Company, Inc., Santa Monica, California, Section B.



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Books

The Intelligent Man's Guide to Science (2 vols.)

by Isaac Asimov

Basic Books \$15

The Intelligent Man's Guide to Science is a rarity - an outline of science written so that it will inform the layman and, at the same time, retain the respect of the scientist. Of course, even two jumbo volumes (Volume I on The Physical Sciences, Volume II on The Biological Sciences) do not provide enough space to contain the whole history of, and recent discoveries in, all the major fields of science. But that's what the redoubtable Mr. Asimov has tried to crowd in here, and his book lives up to its title admirably; it is a comprehensive, readable - and even absorbing - guide to science.

Isaac Asimov is associate professor of biochemistry at Boston University, though he is probably even better known as one of the best of the contemporary science fiction writers. The book has an introduction by G. W. Beadle, professor of biology and acting dean of the faculty at Caltech. And it should be noted that *The Intelligent Man's Guide* is a particularly impressive physical specimen too—the text set in large, handsome type, and the two outsized volumes stoutly boxed.

The Major Achievements of Science

by A. E. E. McKenzie

 Volume I
 \$5.50

 Volume II
 \$3.50

Cambridge University Press

Mr. McKenzie, of Cambridge University, has also produced an outline of science — but with a difference. He directs his book first to the student, then to the general reader. And the book is not so much an outline of science, or even a history of science, as it is a history of scientific ideas, with secondary emphasis on biographical accounts of outstanding scientists. ("If it is right," says Mr. McKenzie, "that one of the main tasks of the educator is to bring youth face to face with greatness, science should

be presented not only historically but biographically. In these egalitarian days, when it is thought almost unethical to work harder and to achieve more than the next man, it is well that youth should be reminded that the greatest scientific achievements have been the fruits of intense toil and selfsacrifice. Most of us, moreover, are far more interested in people than in ideas.")

Most of the chapters in Mr. Mc-Kenzie's book are devoted to outlining the development of various fundamental scientific theories — the Copernican theory, the circulation of the blood, the pressure of air, atomic theory, the conservation and dissipation of energy, relativity, cosmogony. But there is also considerable material here on the interaction of science with philosophy, religion, social change and so on.

Originally, Mr. McKenzie intended to add to each chapter of his book a series of extracts from original books and papers in which scientists gave their own accounts of their theories and discoveries. But the book got too unwieldy, and these accounts now make up a companion volume to the first.

The Autobiography of Science

edited by Forest Ray Moulton and Justus J. Schifferes

Doubleday \$5.95

This large economy-size anthology of key passages from the master works of science presents "the life story of science in the original words of the men who made it." A first edition of the book appeared in 1945, but this second edition now runs all the way from the story of creation in Genesis, to Harrison Brown on the population explosion, and Willy Ley and Wernher von Braun on the exploration of Mars.

As the authors say, "there are six ways to read this book: as a story-book, a history book, a textbook, a reference book, a source book, or a chronicle." Most of all, they hope it will serve as an introduction to the history of science. It makes a good one.