



# CONTENTS

<i>The Earth's Environment</i>	1
<b>The Sun and Solar Physics</b>	3
<i>Leo Goldberg, Harvard University</i>	
<b>The Moon and the Planet Mars</b>	21
<i>Gerard P. Kuiper, University of Arizona</i>	
<b>The Interplanetary Medium and Solar Planetary Relations</b>	71
<i>Ludwig F. B. Biermann, Max-Planck-Institut für Physik und Astrophysik</i>	
<i>Atmospheric Motions</i>	93
<b>Large-Scale Motions of the Atmosphere: Circulation</b>	95
<i>Edward N. Lorenz, Massachusetts Institute of Technology</i>	
<b>Motions of Intermediate Scale: Fronts and Cyclones</b>	111
<i>Arnt Eliassen, University of Oslo</i>	
<b>Atmospheric Turbulence</b>	139
<i>A. M. Obukhov, Institute of Atmospheric Physics, Moscow</i>	
<i>Dynamics of the Oceans</i>	153
<b>Sedimentary Record of Long-Period Phenomena</b>	155
<i>Gustaf Arrhenius, University of California, La Jolla</i>	
<b>The Large-Scale Oceanic Circulation</b>	175
<i>Henry M. Stommel, Massachusetts Institute of Technology</i>	
<b>Coupling of Waves, Tides, and the Climatic Fluctuation of Sea Level</b>	185
<i>Walter H. Munk, University of California, La Jolla</i>	

<i>The "Solid" Earth I</i>	197
<b>The Figure and Long-Term Mechanical Properties of the Earth</b>	<b>199</b>
Gordon J. F. MacDonald, <i>University of California, Los Angeles</i>	
<b>Seismological Information and Advances</b>	<b>247</b>
Frank Press, <i>California Institute of Technology</i>	
<b>The Chemical Composition and Origin of the Earth</b>	<b>287</b>
A. E. Ringwood, <i>Australian National University</i>	
<b>Mineralogy of the Mantle</b>	<b>357</b>
A. E. Ringwood, <i>Australian National University</i>	
 <i>The "Solid" Earth II</i>	 401
<b>Earth Heat Flow Measurements in the Last Decade</b>	<b>403</b>
Francis Birch, <i>Harvard University</i>	
<b>Geochronology, and Isotopic Data Bearing on Development of the Continental Crust</b>	<b>431</b>
G. J. Wasserburg, <i>California Institute of Technology</i>	
<b>Thermal Structure of the Upper Mantle and Convection</b>	<b>461</b>
Walter M. Elsasser, <i>Princeton University</i>	

