

# Contents

---

<i>List of Contributors</i>	ix	<b>Sea surface temperature</b>	237
<i>Foreword</i>	xi	E. G. Njoku and O. B. Brown	
Kathryn D. Sullivan		<b>Oceanic biological productivity</b>	251
<i>Preface</i>	xiii	Charles R. McClain, Gene Feldman and	
<i>Introduction</i>	1	<b>Evaporation from the ocean</b>	265
		W. Timothy Liu	
<b>PART I: RADIATION BALANCE</b>			
<b>Solar irradiance</b>	5	<b>PART V: OCEAN/ATMOSPHERE COUPLING</b>	
Richard C. Willson		<b>El Niño Southern Oscillation: a view from space</b>	281
<b>Radiation budget at the top of the atmosphere</b>	19	K.-M. Lau and A. J. Busalacchi	
Edwin F. Harrison, Patrick Minnis,		<b>PART VI: LAND</b>	
Bruce R. Barkstrom and Gary G. Gibson		<b>Topography</b>	297
<b>PART II: STRATOSPHERE</b>			
<b>Stratospheric chemistry, temperature, and dynamics</b>	41	J. R. Heirtzler	
Jack A. Kaye		<b>Global vegetation mapping</b>	301
<b>Stratospheric ozone depletion</b>	59	J. R. G. Townshend, C. J. Tucker, and S. N. Goward	
Mark R. Schoeberl		<b>Desertification</b>	313
<b>Stratospheric aerosols</b>	67	Bhaskar J. Choudhury	
M. P. McCormick		<b>Coastal change</b>	327
<b>Monitoring of global tropospheric and stratospheric temperature trends</b>	79	Stephen P. Leatherman	
Roy W. Spencer		<b>Volcanoes</b>	341
<b>PART III: TROPOSPHERE</b>			
<b>Water vapor and temperature</b>	89	Peter J. Mouginis-Mark, David C. Pieri and	
Joel Susskind		Peter W. Francis	
<b>Surface wind velocity over the oceans</b>	129	<b>PART VII: CRYOSPHERE</b>	
R. Atlas, R. N. Hoffman, and S. C. Bloom		<b>Snow cover</b>	361
<b>Clouds</b>	141	James L. Foster and A. T. C. Chang	
William B. Rossow		<b>Global sea ice coverage</b>	371
<b>Tropical and subtropical precipitation</b>	165	Claire L. Parkinson and Per Gloersen	
P. A. Arkin and J. E. Janowiak		<b>Ice sheets</b>	385
<b>Tropospheric chemistry</b>	181	R. H. Thomas	
Robert C. Harriss		<b>Glaciers</b>	401
<b>Global observations of lightning</b>	191	Richard S. Williams, Jr. and Dorothy K. Hall	
Steven J. Goodman and Hugh J. Christian		<b>PART VIII: HUMAN-INDUCED CHANGES</b>	
<b>PART IV: OCEANS</b>			
<b>Ocean surface topography and circulation</b>	223	<b>Indications and effects of human activities</b>	425
C. J. Koblinsky		James L. Foster and Claire L. Parkinson	
		<i>Future directions</i>	445
		<i>Appendix</i>	449
		<i>Index</i>	459