

Table of Contents

PREFACE	vii
1. Introduction	1
References	19
2. Data Acquisition Systems	
Introduction	23
2.1 Balloon Soundings	28
2.2 Rocket Systems	31
2.3 Summary	47
References	48
3. The Lower Stratosphere	
Introduction	57
3.1 Tropopause	54
3.2 Stratotnull	63
3.3 Equatorial Lower Stratosphere	65
3.4 Temperature Structure	70
3.5 Circulation	85
3.6 Water Vapor	101
3.7 Particulate Matter	105
3.8 Ozone in the Lower Stratosphere	109
References	118
4. The Upper Stratosphere	
Introduction	129
4.1 Stratospheric Circulation	140
4.2 Sudden Warmings of the Stratosphere	169
4.3 Stable Stratospheric Winters	188

4.4 Spring Reversal	201
4.5 Fall Reversal	207
4.6 Temperature and Density Structure	213
4.7 Detail Structure	223
4.8 Diurnal Variations	232
4.9 Composition	248
4.10 Acoustic Structure	259
References	273

5. The Mesosphere

Introduction	285
5.1 Mesospheric Circulation	297
5.2 Temperature Structure	307
5.3 Noctilucent Clouds	314
5.4 Electrical Characteristics	330
References	339

6. Summary

AUTHOR INDEX

SUBJECT INDEX

