

TABLE OF CONTENTS

| | | |
|--|--|----------------------|
| I. | Introduction..... | 1 |
| II. | Historical Background | 2 |
| III. | Value of Long-Term Solar Radiation Data..... | 5 |
| IV. | Station Configuration and Sensor Comparisons | 8 |
| V. | Data Handling Procedures | 11 |
| VI. | Sensor Calibrations | 13 |
| VII. | Solar Radiation Data Comparisons..... | 18 |
| VIII. | Use of Chart Records in Data Analysis..... | 22 |
| IX. | Impact of Aerosols from the Eruption of El Chichón on Direct Beam Radiation in the Pacific Northwest..... | 27 |
| X. | Correlations between Diffuse and Global Irradiance | 33 |
| XI. | Diffuse-Global Correlations: Seasonal Variations..... | 39 |
| XII. | Beam-Global Correlations | 45 |
| Appendix A. Monthly Averaged Data | | 52 |
| 1. | Aberdeen, Idaho | 1994-1997 |
| 2. | Bend, Oregon | 1977-1984, 1995-1997 |
| 3. | Boise, Idaho | 1994-1997 |
| 4. | Burns, Oregon | 1979-1997 |
| 5. | Christmas Valley, Oregon | 1994-1997 |
| 6. | Coeur d'Alene, Idaho | 1982-1986 |
| 7. | Coos Bay, Oregon | 1977-1984, 1988 |
| 8. | Eugene, Oregon | 1975-1997 |
| 9. | Green River, Wyoming | 1994-1997 |
| 10. | Hermiston, Oregon | 1979-1990, 1992-1997 |
| 11. | Hood River, Oregon | 1984-1988 |
| 12. | Kimberly, Idaho | 1980-1985, 1994-1997 |
| 13. | La Grande, Oregon | 1977-1984 |
| 14. | Madras, Oregon | 1994-1997 |
| 15. | Moab, Utah | 1994-1997 |
| 16. | Parma, Idaho | 1994-1997 |
| 17. | Picabo, Idaho | 1994-1997 |
| 18. | Portland, Oregon | 1980-1985 |
| 19. | Whitehorse Ranch, Oregon | 1977-1985 |
| Appendix B. Daily Plots of Burns and Eugene Data | | |
| Appendix C. Useful Conversion Factors | | Back Cover |