

## Table of Contents

<b>SECTION 1: SOLAR ECLIPSE FUNDAMENTALS .....</b>	<b>5</b>
1.1 INTRODUCTION.....	5
1.2 CLASSIFICATION OF SOLAR ECLIPSES .....	6
1.3 CENTRAL SOLAR ECLIPSES.....	7
1.4 VISUAL APPEARANCE OF ANNULAR SOLAR ECLIPSES .....	7
1.5 VISUAL APPEARANCE OF TOTAL SOLAR ECLIPSES.....	7
<b>SECTION 2: SOLAR ECLIPSE STATISTICS .....</b>	<b>9</b>
2.1 INTRODUCTION.....	9
2.2 DISTRIBUTION OF ECLIPSE TYPES BY CENTURY .....	10
2.3 EXTREMES IN ECLIPSE MAGNITUDE: ANNULAR ECLIPSES .....	11
2.4 EXTREMES IN ECLIPSE MAGNITUDE: TOTAL ECLIPSES .....	11
2.5 EXTREMES IN ECLIPSE MAGNITUDE: HYBRID ECLIPSES .....	12
2.6 GREATEST CENTRAL DURATION: ANNULAR ECLIPSES.....	13
2.7 GREATEST CENTRAL DURATION: TOTAL ECLIPSES .....	13
2.8 GREATEST CENTRAL DURATION: HYBRID ECLIPSES .....	13
<b>SECTION 3: EXPLANATION OF WORLD ATLAS ECLIPSE MAPS: APPENDICES A-C.....</b>	<b>14</b>
3.1 INTRODUCTION.....	14
<b>SECTION 4: EXPLANATION OF CENTRAL SOLAR ECLIPSE CATALOG: APPENDIX D.....</b>	<b>15</b>
4.1 INTRODUCTION.....	15
4.2 CALENDAR DATE.....	15
4.3 TD OF GREATEST ECLIPSE (TERRESTRIAL DYNAMICAL TIME OF GREATEST ECLIPSE).....	15
4.4 $\Delta T$ (DELTA T) .....	15
4.5 SAROS NUM (SAROS SERIES NUMBER) .....	15
4.6 ECL. TYPE (SOLAR ECLIPSE TYPE).....	16
4.7 GAMMA .....	16
4.8 ECL. MAG. (ECLIPSE MAGNITUDE) .....	16
4.9 LAT. LONG. (LATITUDE AND LONGITUDE).....	16
4.10 SUN ALT AND SUN AZM (ALTITUDE AND AZIMUTH OF SUN).....	16
4.11 PATH WIDTH .....	16
<b>SECTION 5: SOLAR ECLIPSE PREDICTIONS .....</b>	<b>17</b>
5.1 MEAN LUNAR RADIUS.....	17
5.2 SOLAR AND LUNAR COORDINATES .....	17
5.3 MEASUREMENT OF TIME.....	17
5.4 $\Delta T$ (DELTA T) .....	18
5.5 CALENDAR DATE.....	18
<b>APPENDIX A: MAPS OF SOLAR ECLIPSES IN NORTH &amp; SOUTH AMERICA.....</b>	<b>19</b>
<b>APPENDIX B: MAPS OF SOLAR ECLIPSES IN EUROPE &amp; AFRICA .....</b>	<b>47</b>
<b>APPENDIX C: MAPS OF SOLAR ECLIPSES IN ASIA &amp; AUSTRALIA.....</b>	<b>75</b>
<b>APPENDIX D: CATALOG OF CENTRAL SOLAR ECLIPSES: 1501 - 2400 .....</b>	<b>103</b>