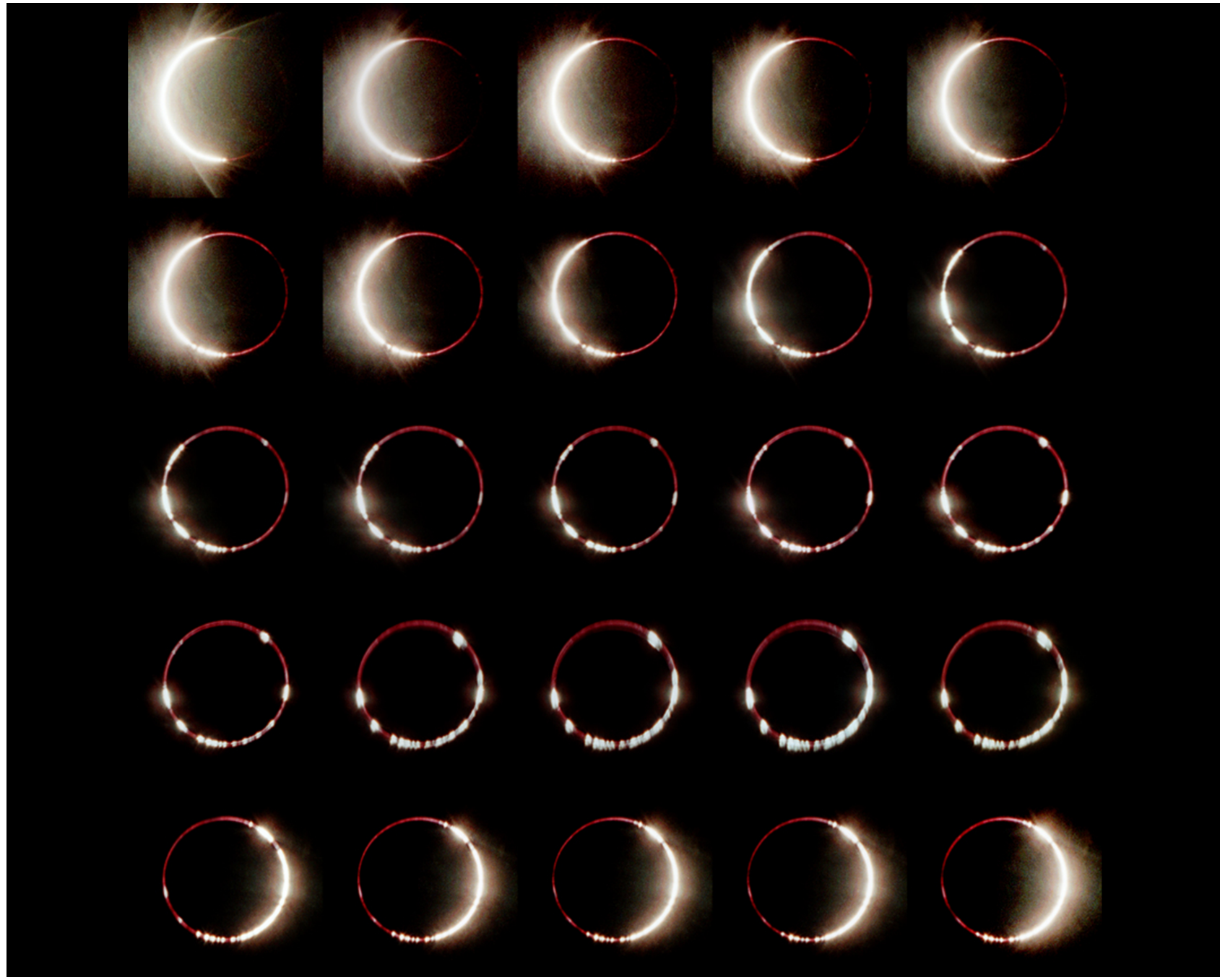
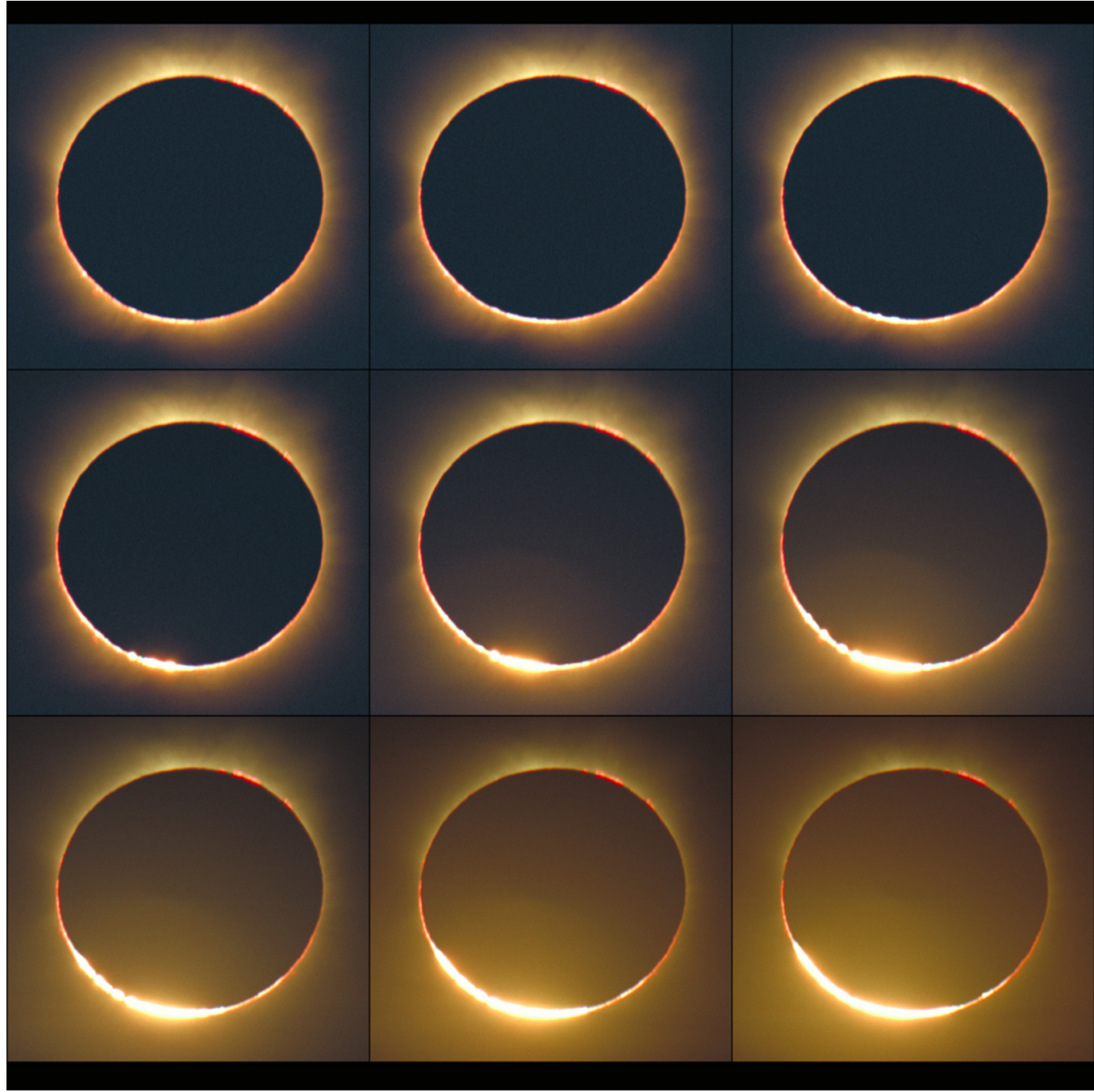




**"Zero Second" ("TSE 1986 Oct 03")**

14,000 ft ANS, west of Iceland  
Predicted as a 0s total solar eclipse, with the Moon and Sun perfectly matched in angular size, a full chromospheric ring enveloped the lunar disk with selenographic features giving rise to a "diamond star" of dynamic baby's heads dancing around the periphery.  
Top/Left to Bottom/Right in 8 seconds.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_86/ECLIPSE\\_86.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_86/ECLIPSE_86.html)



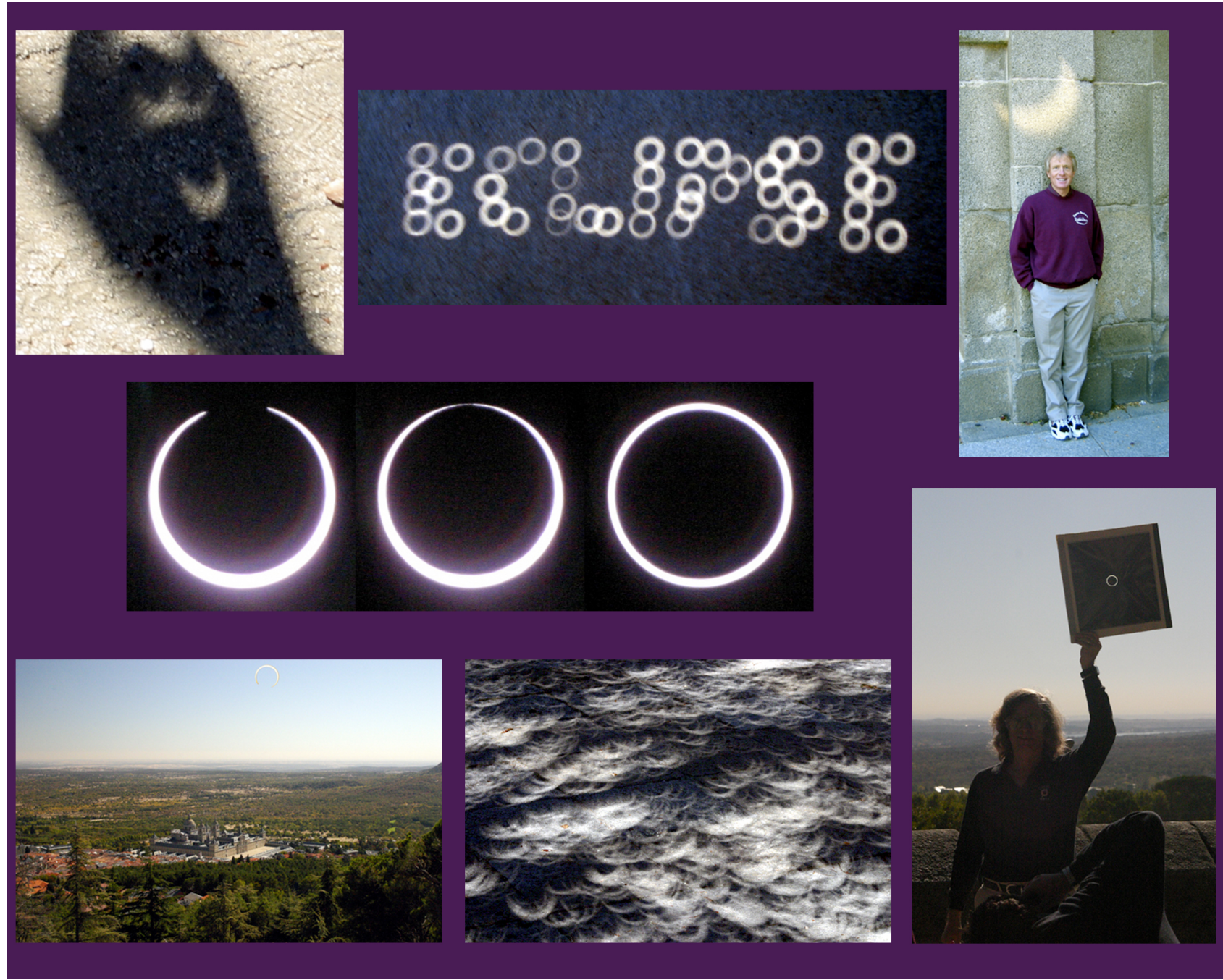
**"Golden Totality: Contact III"**

26 s TSE 2002 Dec 04 — Lindon Station (near Cameron's Corner), Australia  
"Filtered" by airborne dusts particulates the golden corona remains visible as baby's heads punctuate the lunar limb at the end of totality and a photospheric silver emerges (1s cadence imagery).  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002.html)



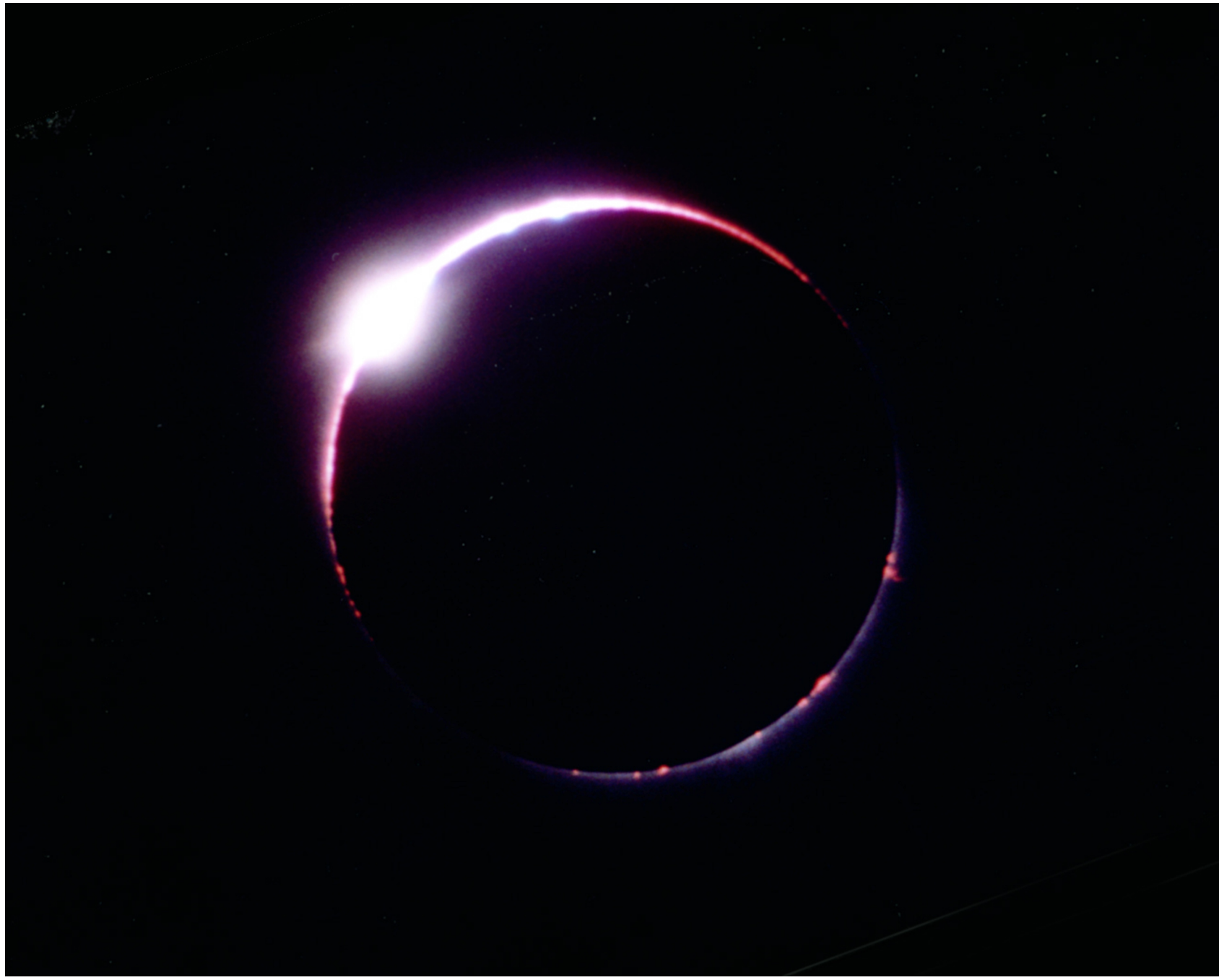
**"The Moonwalk: A Stroll Across the Face of the Sun"**

In a nearly 4-minute central traverse across the face of the Sun, the Moon sequentially reveals prominences first along the western limb, then, just prior to Contact III, on the eastern limb.  
3m 50s TSE Mar 29 2006 — Side, Turkey



**"Shadow Play" (Fun with Pinholes & Other Tricks)**

ASE 03 Oct 2005 — San Lorenzo de El Escorial, Spain  
In general, I don't chase "antumbra" shadows, but similar eclipses can lend themselves to some rather amusing "low tech" shadow play from smiley-face finger puppets to Cheshire Cat greys. (Five of the umbra/pic pictures here taken with just a "point and shoot" camera and no post-processing.)  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ASE\\_2005/ASE\\_2005\\_SPAIN.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ASE_2005/ASE_2005_SPAIN.html)



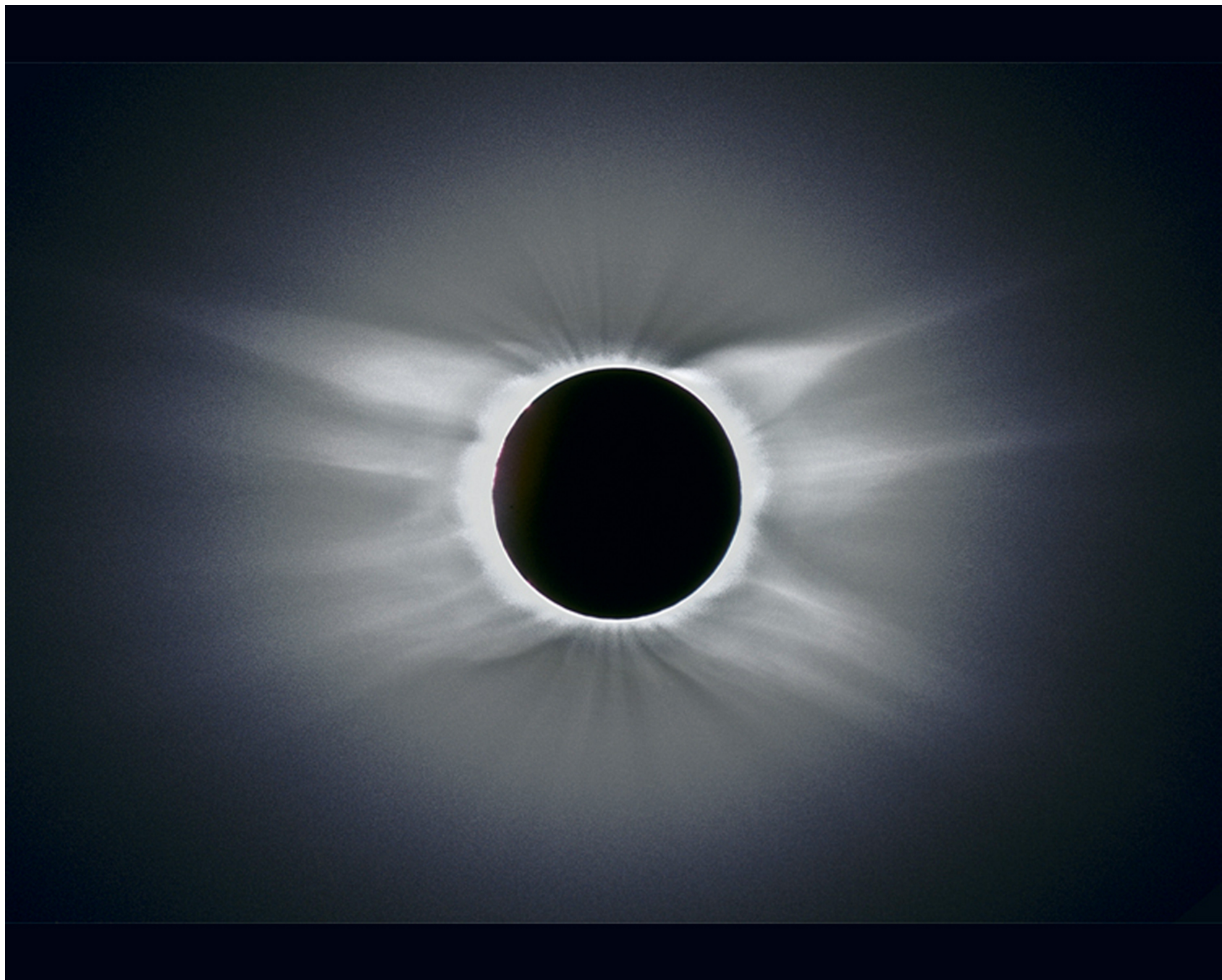
**"Diamond Ring (with ruby baouette)"**

97s TSE 1995 Oct 24 — Chennai, India  
"Short" (< 1 minute) duration total solar eclipses near local noon result from small differentials in solar and lunar angular diameters — thus "limb features" on both the leading and trailing sides of the lunar limb may be simultaneously viewed. Here, small prominences are seen above the lunar trailing hemisphere at the start of totality across from the diametrically opposed Contact II diamond ring.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_95/UMBRAPIHLE\\_DEBUT\\_1995.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_95/UMBRAPIHLE_DEBUT_1995.html)



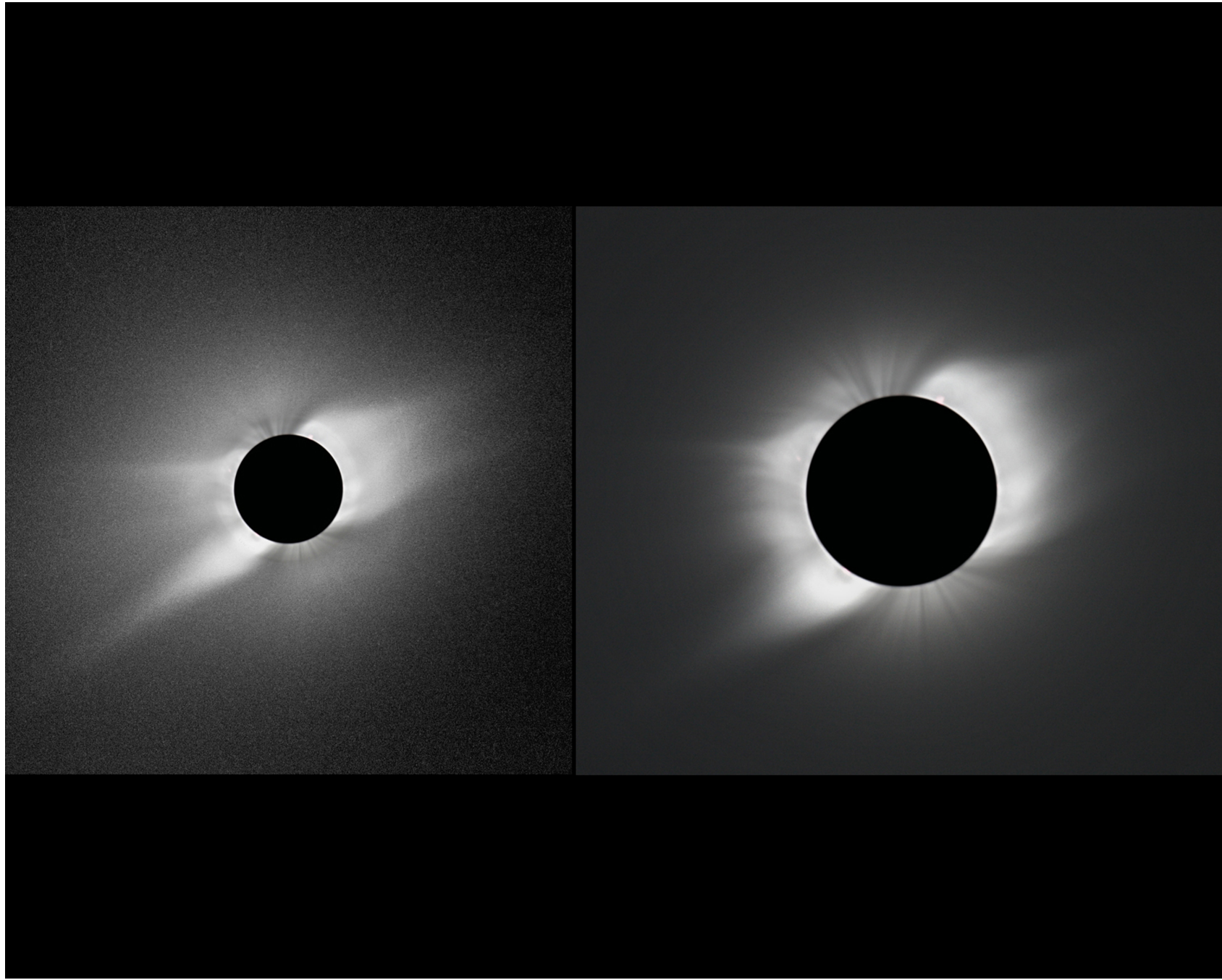
**"Golden Totality: Framed by Dust Reddened Umbra"**

26 s TSE 2002 Dec 04 — Lindon Station (near Cameron's Corner), Australia  
With the totally eclipsed sun ~ 2" above the horizon, the solar umbra's shadow in the direction of the Moon frames totality with chromospheric and dust-redened skylight at the periphery. (In collaboration with Jay Friedland)  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002.html)



**"Equatorial Coronal Streamers"**

In contrast to the TSE 2001 corona, here at solar minimum, coronal streamers are confined to equatorial and low-latitude circumsolar regions with more (antumbra) totality polar structure.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_06/TSE2006\\_REPORT.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_06/TSE2006_REPORT.html)



**"EFLIGHT 2008 — Guide (L) and Hi-Res (R) Cameras"**

2m 52s TSE 2008 Aug 01 — 82.6° N latitude @ 36,000 ft (11 km in the stratosphere)  
In mid-summer at high polar latitudes, the tropopause (below which where "weather occurs") has typical heights of only ~8 km. At 11 km, polar aerosol scattering of sunlight by airborne particulates is extremely low giving rise to exceptionally dark skies during totality, enabling eclipse viewing with greatly enhanced image contrast. Here, two views of the corona with ~ 75% of the Earth's swaky atmosphere below. (Right: In collaboration with Ben Kramer)  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_08/TSE2008\\_LTU1111.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_08/TSE2008_LTU1111.html)



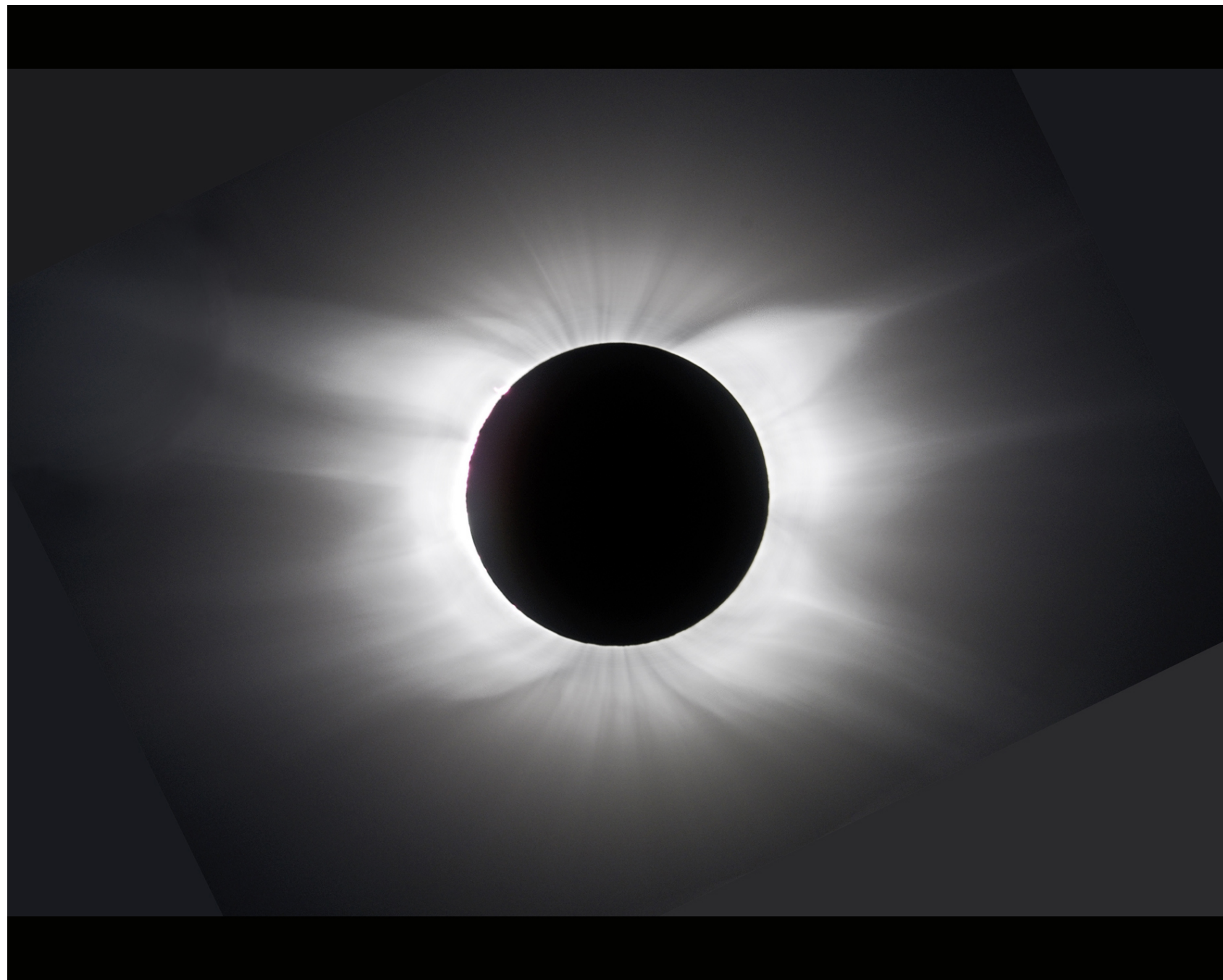
**"Siberian Stereogram: Corona"**

1m 53s TSE 1997 Mar 09 — near Chita, Siberia  
Stand back about a meter, focus on the space between the two images, slightly "cross" your eyes to let the images fuse then relax for half a minute (well, for 1/2 to see a "3D totality").  
(Not realistic, but pretty cool).  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_97/ECLIPSE\\_1997.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_97/ECLIPSE_1997.html)



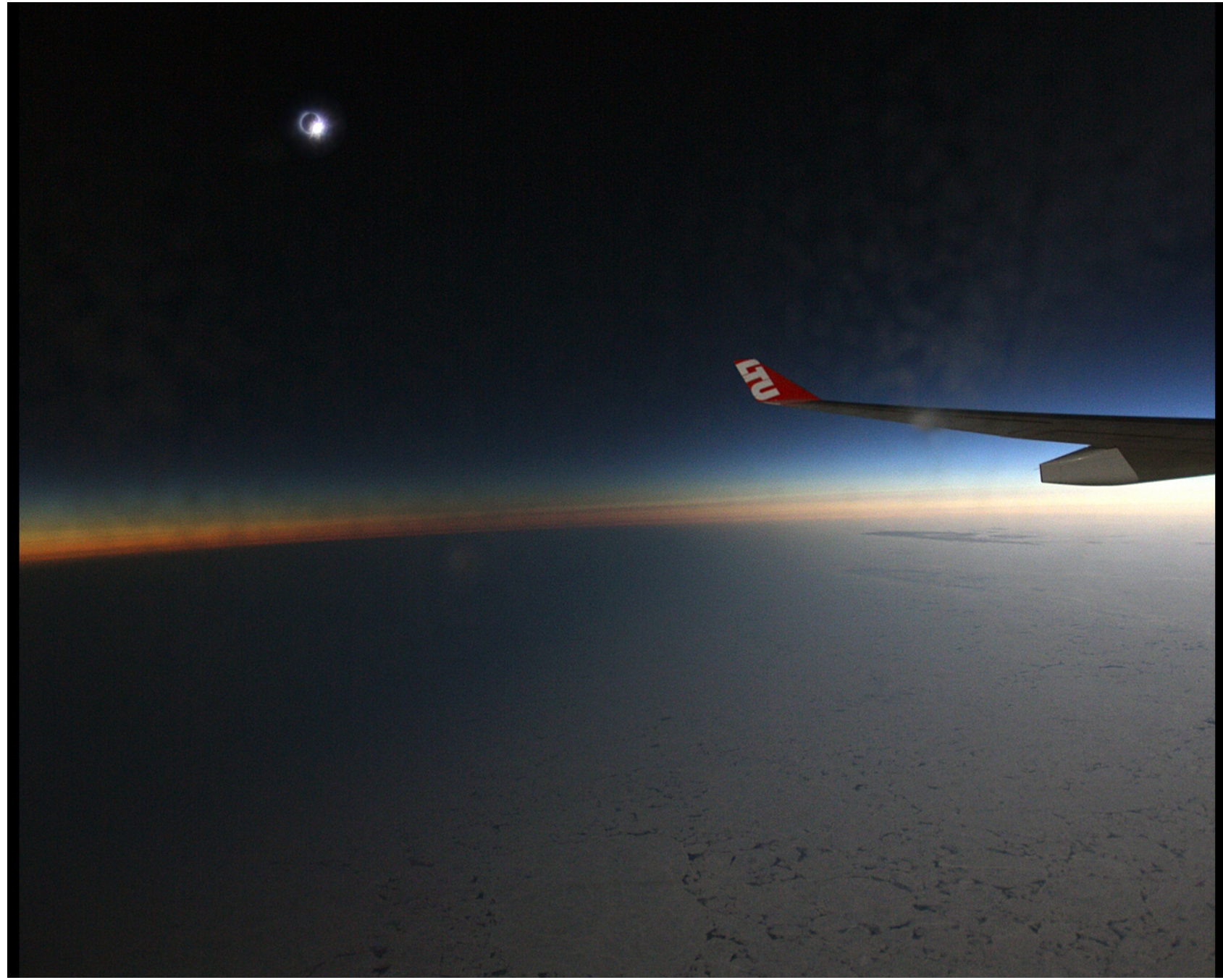
**"Golden Totality: The Oasis at the Fortville Bore" (with some artistic license)**

26 s TSE 2002 Dec 04 — Lindon Station (near Cameron's Corner), Australia  
Totality near sunset at the only open water within 2200 sq. miles jumped 200 feet to the surface at the Fortville bore in middle of the Australian outback where it had not rained for two years prior to TSE 2002. Looking across "the pond" at the Clagney homestead (a 1600 sq. mile ranch with 200 head of cattle).  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002.html)



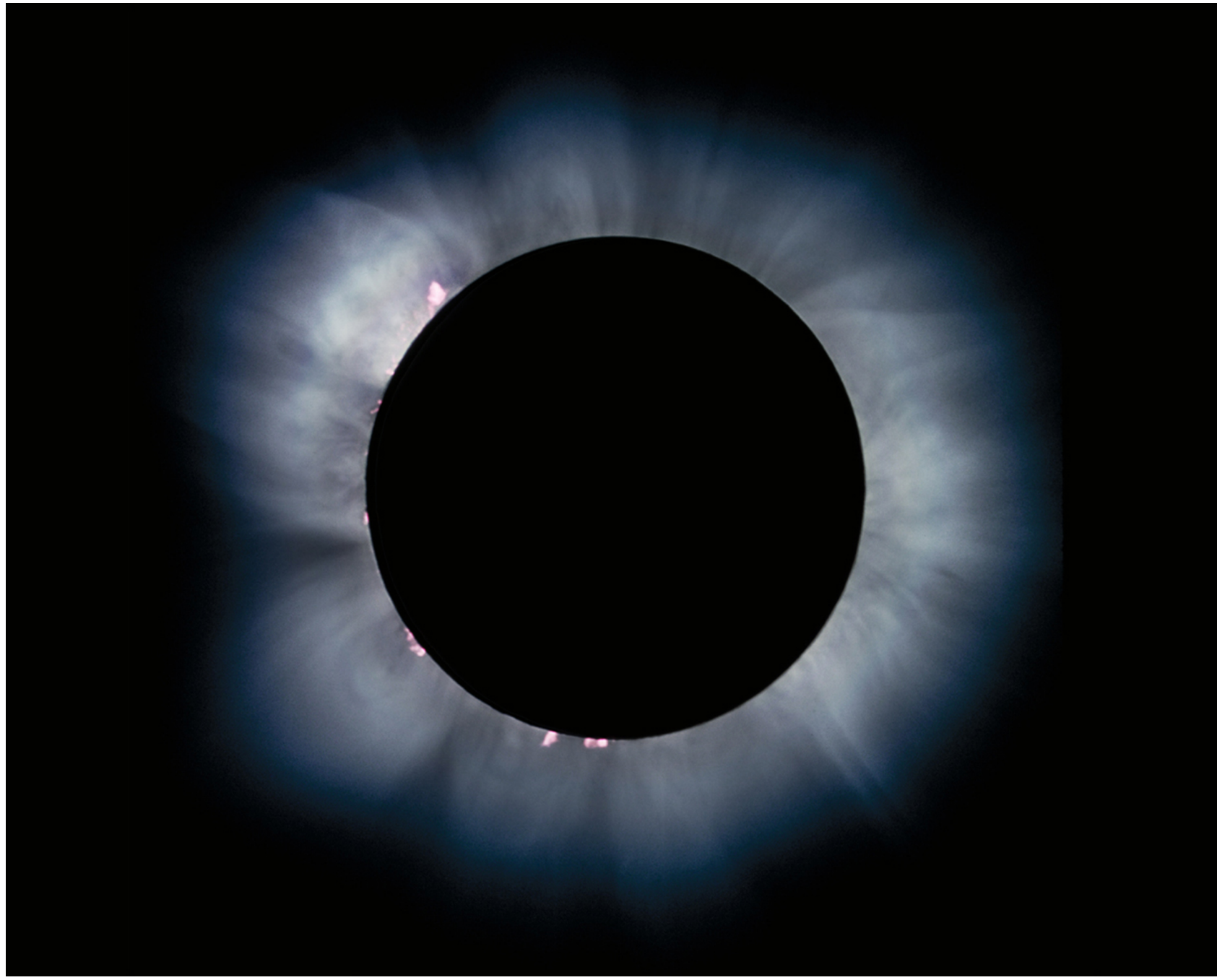
**"The Hole in the Sky"**

3m 50s TSE Mar 29 2006 — Side, Turkey  
The shock-white "electric" brilliance of the TSE 2006 corona in profile skin shines down on Earth-bound umbra/picures in dark contrast to the "hole in the sky" it surrounds. (In collaboration with Ben Moskowitz)  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_06/TSE2006\\_REPORT.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_06/TSE2006_REPORT.html)



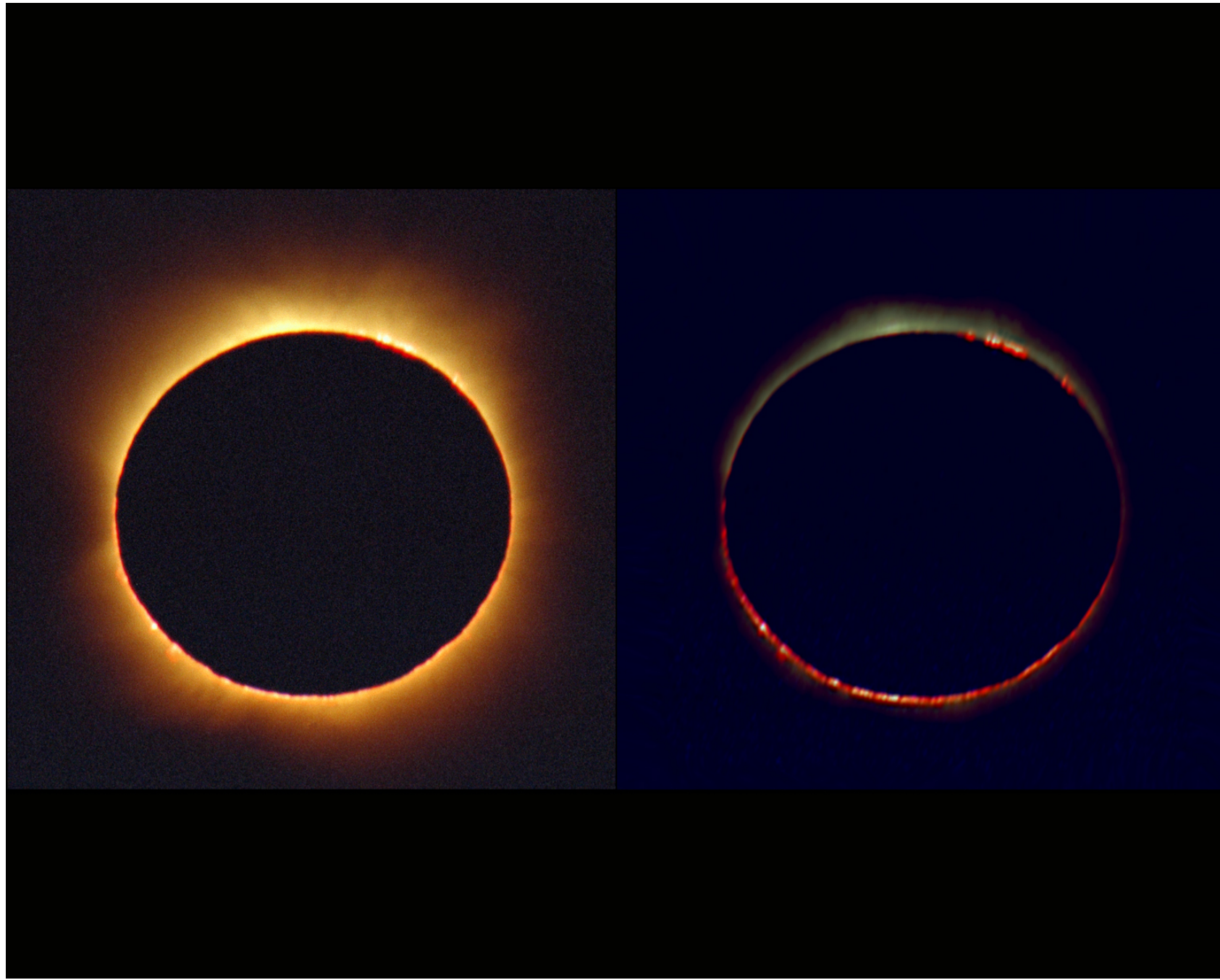
**"3m 50s 'Umbral Interface: Heaven and Earth'"**

2m 52s TSE 2008 Aug 01 — 82.6° N latitude @ 36,000 ft (11 km in the stratosphere)  
Fishbergswimming "Aurora" is perhaps more on point, but has been dissolved in its true meaning in the contemporary vernacular. No foreknowledge or understanding of celestial mechanics had prepared observers 11 km above the frozen Arctic Ocean, 640 km from the North Pole, for the astounding visual impact of the arrival of the umbra's shadow at the instant of 0:11 in the sky above and on the ice below. (In collaboration with Dan McGroun)  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_08/TSE2008\\_LTU1111.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_08/TSE2008_LTU1111.html)



**"The Glory of Totality" (High-Resolution)**

3m 31s TSE 2001 Jun 21 — Lower Zambezi National Park, Zambia  
A stunningly beautiful "circularly symmetric" sunspot-minimum mid-corona is rich with detail and punctuated with prominences above the lunar-occulted solar limb.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_01/ECLIPSE\\_2001\\_REPORT.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_01/ECLIPSE_2001_REPORT.html)



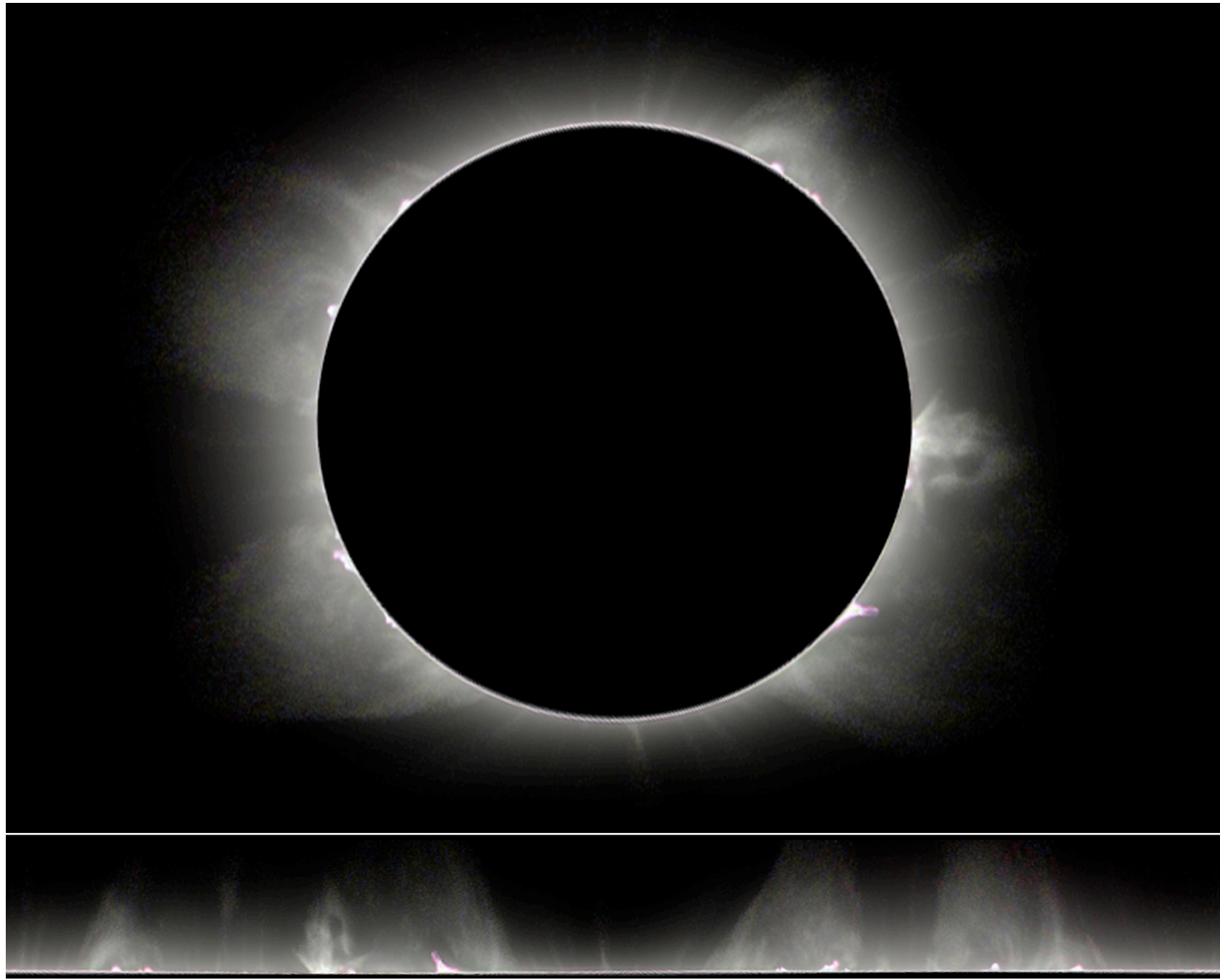
**"Golden Totality: Hemisphere (plus) of Fire"**

26 s TSE 2002 Dec 04 — Lindon Station (near Cameron's Corner), Australia  
The low (< 27°) altitude of the eclipsed sun makes the lunar silhouette appear vertically separated from differential atmospheric refraction) when, just prior to Contact III a full hemispheric chromospheric arc emerges at the "bottom" of the Sun.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002.html)



**"Contact III: Up Close and Personal"**

3m 50s TSE Mar 29 2006 — Side, Turkey  
Italy's beads momentarily shine in a chromospheric arc at the Contact III position on the limb of the eclipsed Sun at the end of totality giving rise to a post-totality "diamond ring" (1-second image cadence).  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_06/TSE2006\\_REPORT.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_06/TSE2006_REPORT.html)



**"Prominences and Inner Corona — Unwrapped"**

32 s TSE 2005 Apr 08 — Mid-Pacific Ocean SE of Tahiti (from the Paul Gauguin)  
The influence on the "diamond ring" structure of the inner corona by underlying prominences is made visually apparent by "unwrapping" the solar limb. In a center-on-polar perspective — bottom image with the gravity gradient downward all around the solar limb.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_05/TSE2005\\_IMAGES.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_05/TSE2005_IMAGES.html)



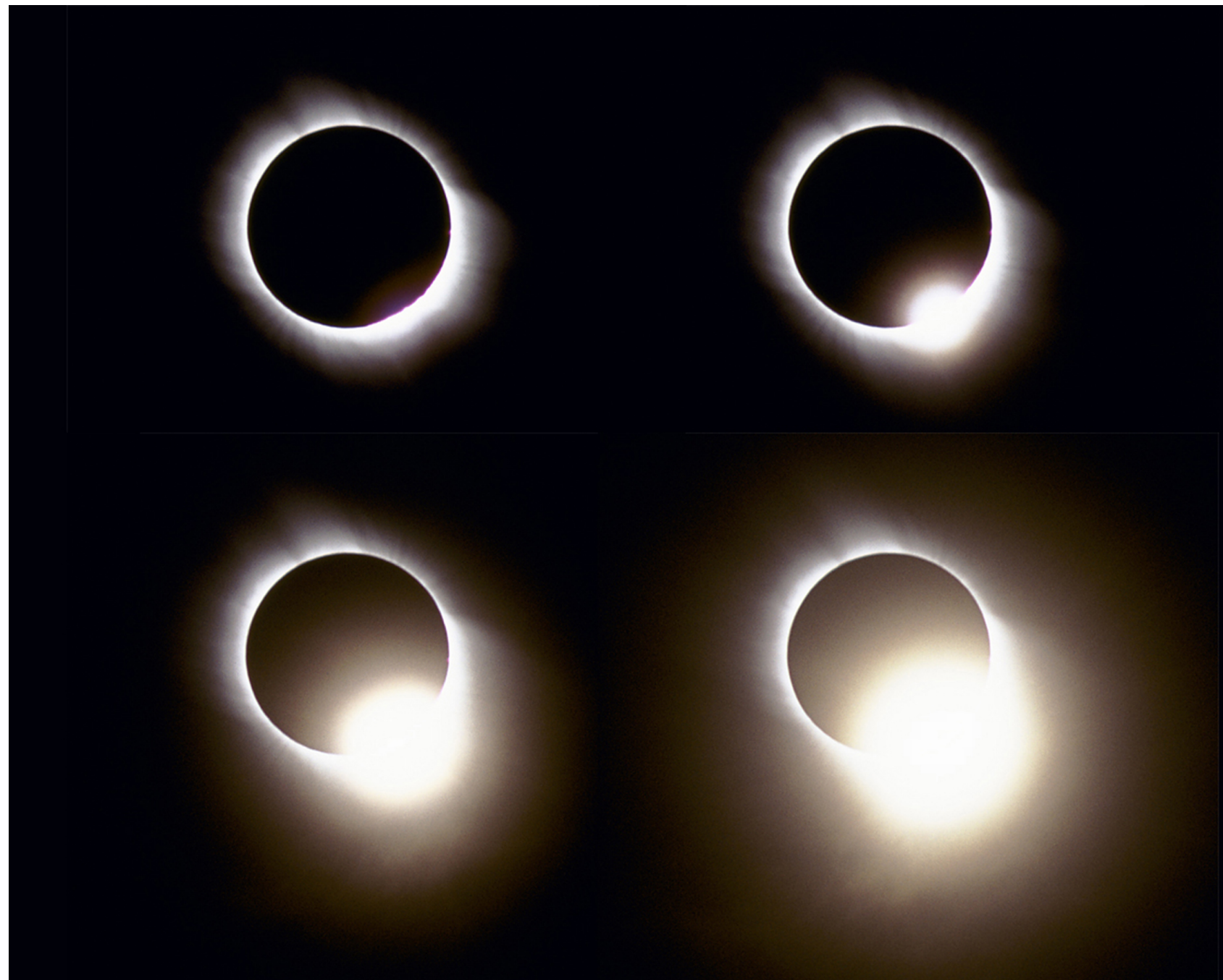
**"The Glory of Totality" (Wide Field)**

3m 31s TSE 2001 Jun 21 — Lower Zambezi National Park, Zambia  
Coronal streamers extend at all circum-solar azimuths, typical of a sunspot-minimum outer corona.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_01/ECLIPSE\\_2001\\_REPORT.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_01/ECLIPSE_2001_REPORT.html)



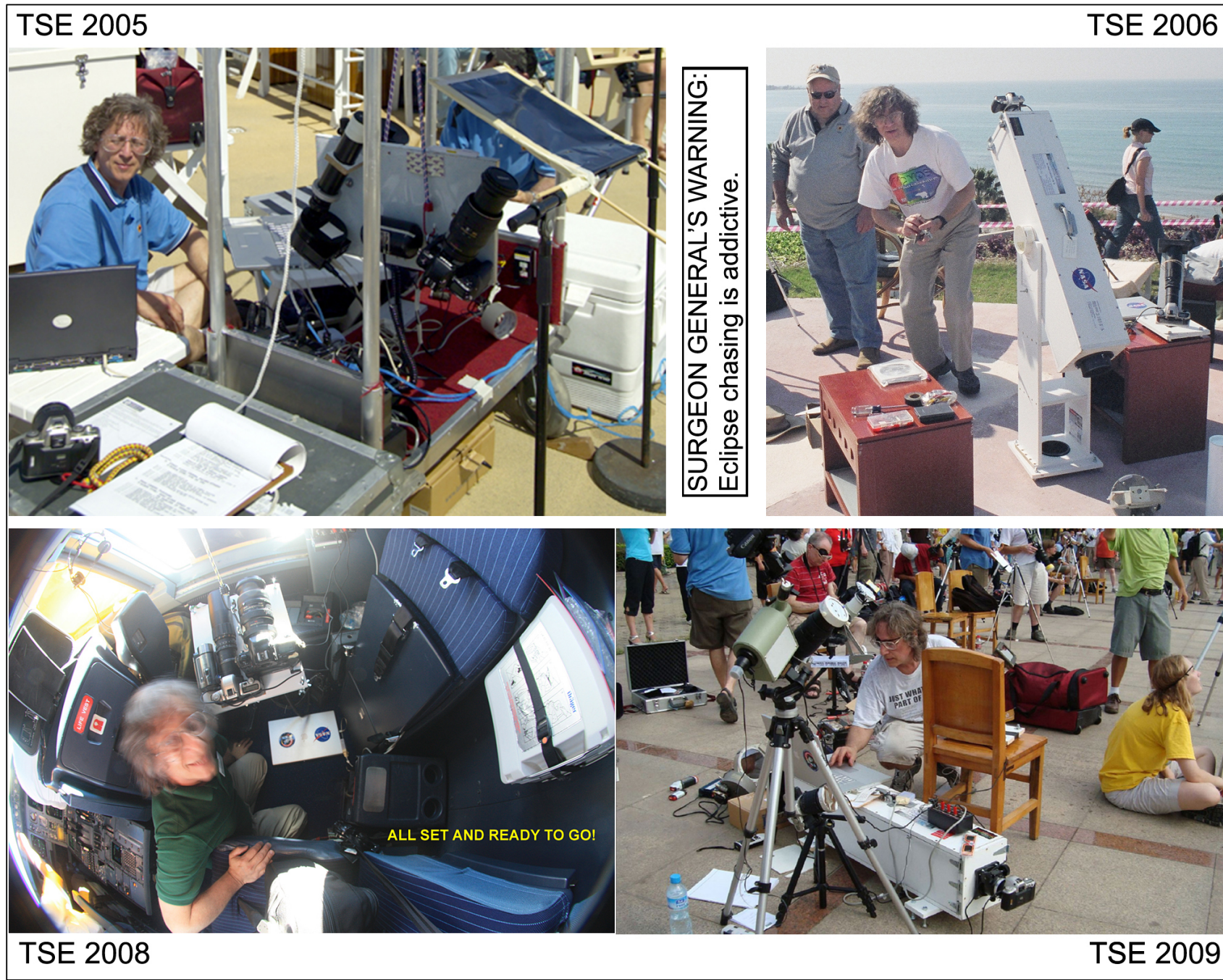
**"Post-Facto Golden Totality: The Cheshire Cat at Sunset"**

26 s TSE 2002 Dec 04 — Lindon Station (near Cameron's Corner), Australia  
Going... going... After totality, the cusps of a thin partially eclipsed Sun are infrequently seen at sunset as the sky quickly redarkens with a real twilight following the false one of total eclipse just a few minutes earlier.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002.html)



**"Contact III: Diamond Ring"**

Here comes the Sun. Simultaneously imaged with the "Up Close and Personal" perspective, these images more closely convey the visual appearance of a corona-enveloped moon at the onset of and during the Contact III diamond ring.  
[http://nicmosis.as.arizona.edu/8000/ECLIPSE\\_WEB/ECLIPSE\\_06/TSE2006\\_REPORT.html](http://nicmosis.as.arizona.edu/8000/ECLIPSE_WEB/ECLIPSE_06/TSE2006_REPORT.html)



**IMAGING TOTALITY**

Glenn Schneider (The University of Arizona)