Get ready for Mars!
by Mike Mills

Every 26 months, Earth catches up to and passes Mars on its faster inside orbit around the sun. At these opposition events, Mars is close enough for observers on Earth to see a great deal of detail on the martian disk. The next Mars opposition will occur on August 28, and it will bring Earth and Mars closer than they have been for about 70,000 years. Modest amateur telescopes will provide a great view as Mars reaches its maximum apparent diameter in August. But don’t wait until August to start watching—significant surface detail will be visible well before and after closest approach.

A perihelic opposition
Even though Earth and Mars are at opposition every 26 months, not every opposition provides such a great view of the red planet. We are fortunate this year because Earth will catch up to Mars just as Mars reaches perihelion (closest approach to the Sun), while Earth will only be about 2-1/2 months past aphelion (farthest excursion from the Sun). At closest approach the two planets will be separated by only about 34.4 million miles. At this close distance, the Martian disk will subtend 25.1 arcseconds. To get a sense of how big this is, compare the simulated image of Mars on August 28 in the picture above with the simulated images of Jupiter and Saturn on May 1. Mars will look bigger than the globe of Saturn and nearly as large as Jupiter!

Unfortunately, the ecliptic will be relatively low in the night sky in August. From our latitude, Mars will reach a maximum altitude of only 35.5 degrees at opposition. But this is still much better than its last appearance in June 2001, when it only rose 24.7 degrees above the horizon.

August 28 will not be the only good opportunity to observe Mars. It already

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