

# Naked Eye Astronomy Retreat

## December 23, 2007 – Anza Borrego State Park - Alternate Location TBD (weather sensitive)

Join astrologer, historian, and star lore expert Ed Kohout for a special celestial alignment of the Moon and Mars in full phase on the eve of Xmas Eve.

While Santa is warming up the seats in his sleigh, we'll be in the desert watching a Full Moon rise in the northeast just before the Sun sets.

As the sunlight fades, a bright Full Mars at -1.5 Magnitude will appear just under the Moon, Both transiting the dark region between the four bright constellations of Taurus, Orion, Auriga, and Gemini.

As the bodies ascend, the Moon's southern edge will come within 11' of arc with Mars, virtually a grazing at the latitude of San Diego. Regions to the north such as Canada will see an occultation.

The combination of grazing while both planets are at their full phase and in high declination is surely a rarity.

Ed will identify key features of the heavens during this event. Learn about ancient star lore, constellations, and heavenly motion. Learn why the planets vary in brightness and position in the sky.

No telescopes will be used; each participant is urged to use only their own eyes and imagination to re-discover the whole of the night sky – just as the pioneering astrologers of ancient civilizations might have. Of course, anyone is free to supply their own telescope, and binoculars are also a great idea, but the point of all this is to embrace the immense beauty and wonderment of the heavens without filters.

\$25.00 program fee includes star maps, lore guides, astronomical instruction, and personal attention.

Questions can be directed to Ed: (760) 644-5461, or [ed@edkohout.com](mailto:ed@edkohout.com)

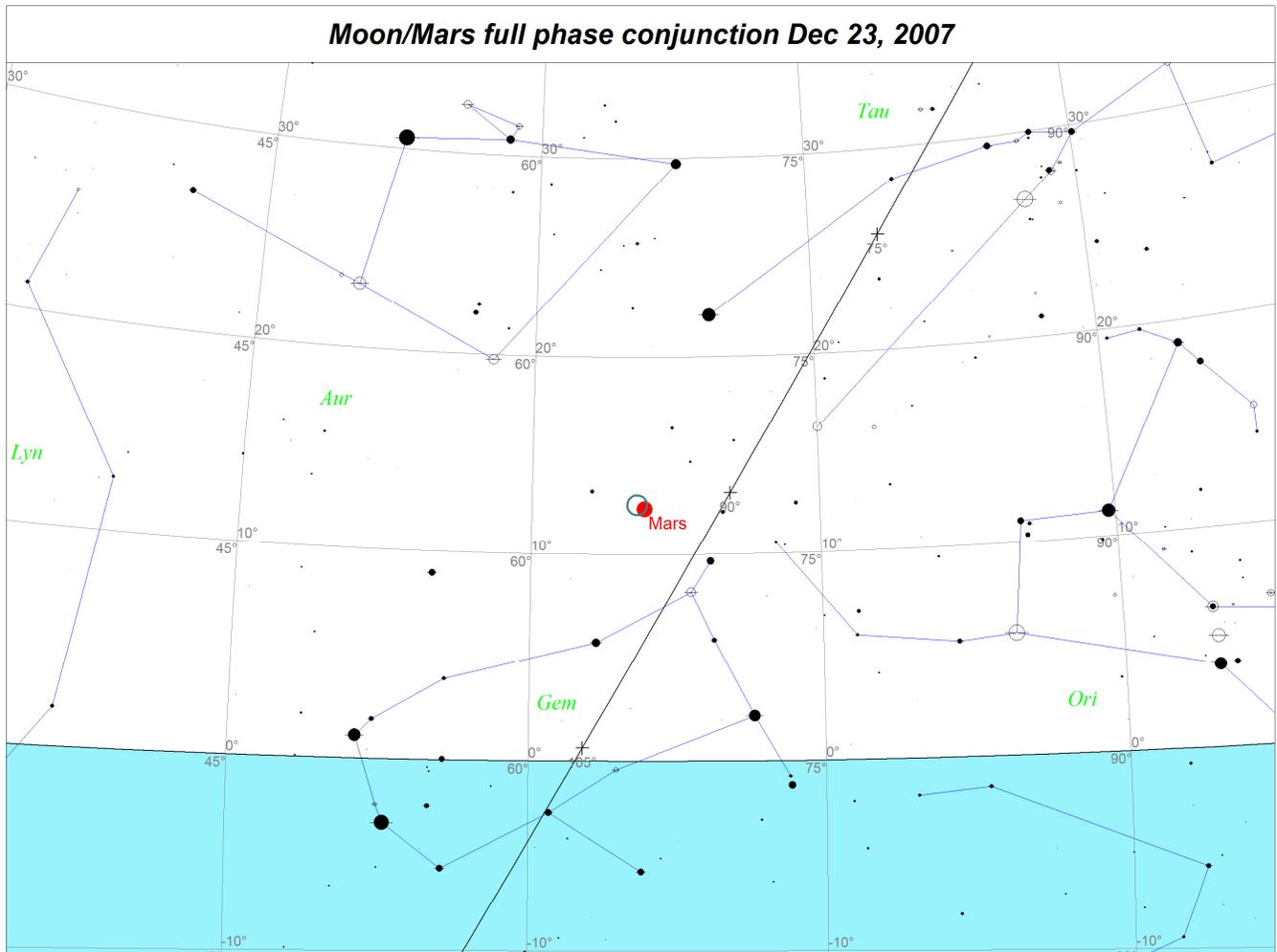
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## Itinerary:

### Sunday, December 23

As any attempt to view the sky during this time of year, plans need to be flexible. I'm shooting for Anza-Borrego State Park, but depending on the weather outlook for visibility, this may change.

Tentatively, as this is one of the shortest days of the year, we'll need to head out two and a half hours before our target Moonrise time to account for travel time and site setup. We'll have a clearer picture of the itinerary at 4 days out, but it may be the day before that we decide on a locale. There is a chance we will cancel entirely.



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## Events for Sunday, December 23, 2007

(Anza Borrego State Park)

15:23 Moon rises

15:34 Mars rises

15:59 Sun sets

16:35 End of civil twilight

17:14 End of nautical twilight

17:39 *Moon conjuncts Mars*

17:51 End of astronomical twilight