

# Total Lunar Eclipse of 2018 Jan 31

Ecliptic Conjunction = 13:27:53.0 TD (= 13:26:42.5 UT)  
 Greatest Eclipse = 13:31:00.1 TD (= 13:29:49.6 UT)

Penumbral Magnitude = 2.2941 P. Radius = 1.2978° Gamma = -0.3014  
 Umbral Magnitude = 1.3155 U. Radius = 0.7567° Axis = 0.3058°

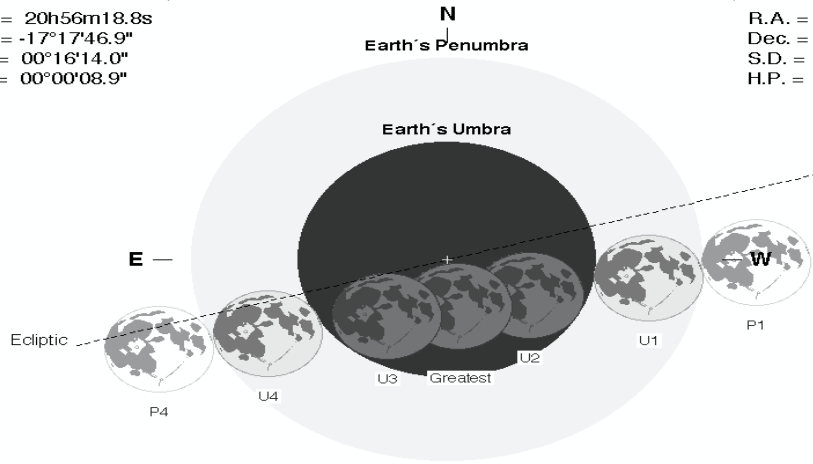
Saros Series = 124 Member = 49 of 74

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 20h56m18.8s  
 Dec. = -17°17'46.9"  
 S.D. = 00°16'14.0"  
 H.P. = 00°00'08.9"

## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 08h56m05.0s  
 Dec. = +16°59'44.1"  
 S.D. = 00°16'35.2"  
 H.P. = 01°00'52.5"



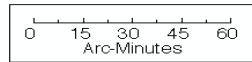
## Eclipse Durations

Penumbral = 05h17m12s  
 Umbral = 03h22m44s  
 Total = 01h16m04s

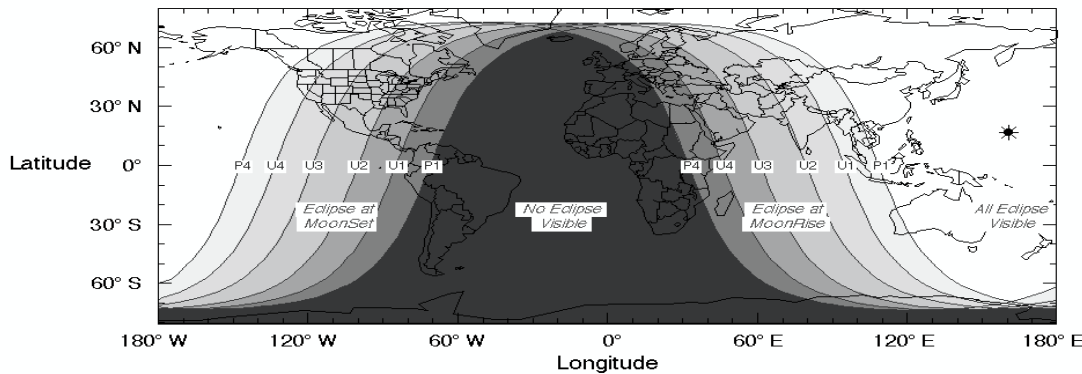
ΔT = 71 s  
 Rule = CdT (Danjon)  
 Eph. = VSOP87/ELP2000-85

## Eclipse Contacts

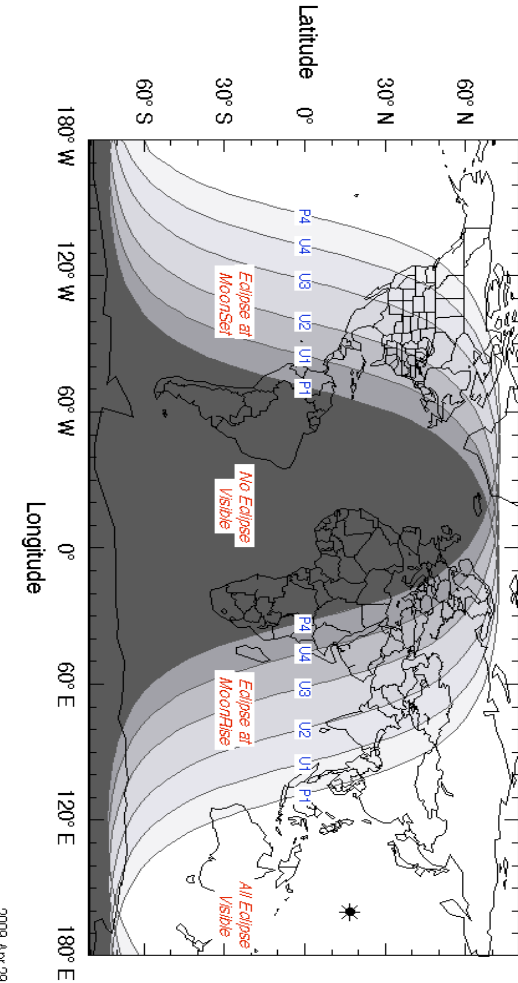
P1 = 10:51:15 UT  
 U1 = 11:48:27 UT  
 U2 = 12:51:47 UT  
 U3 = 14:07:51 UT  
 U4 = 15:11:11 UT  
 P4 = 16:08:27 UT



F. Espenak, NASA's GSFC  
[eclipse.gsfc.nasa.gov/eclipse.html](http://eclipse.gsfc.nasa.gov/eclipse.html)



2009 Apr 29



During the

PENUMBRAL portion (beginning and ending) the Moon moves through the bright outer part of Earth's shadow. Any dimming will be barely visible.

Moon starts entry into dark part of Earth's shadow at U1, totality (U2 through U3) lasts 1 hr 26 min. Rest of the U.S. sees the Moon set during some part of the Eclipse, Wednesday morning 1/31/18.

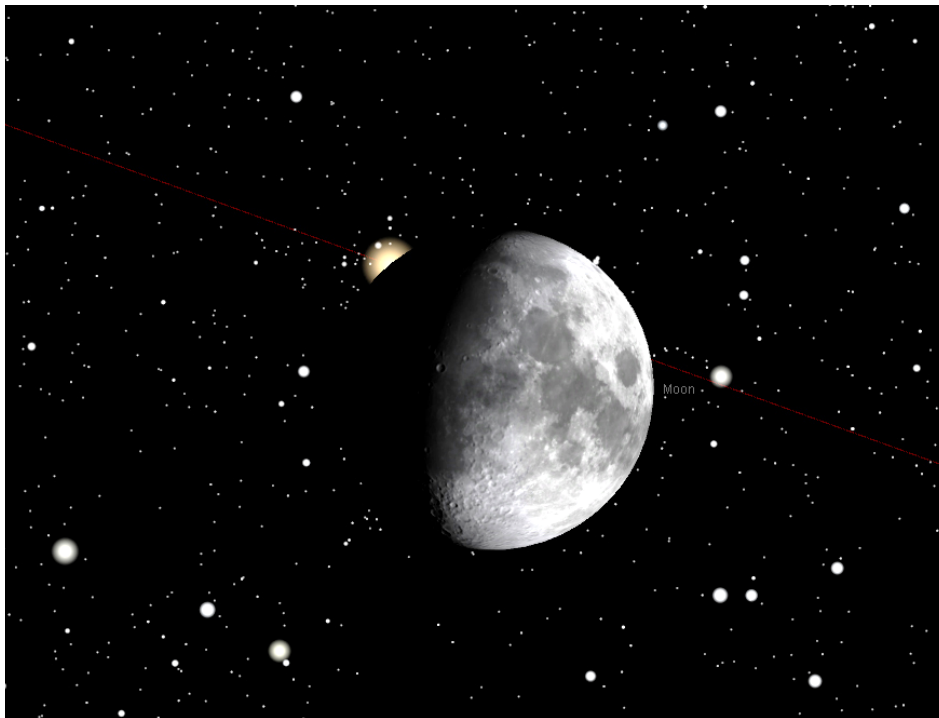
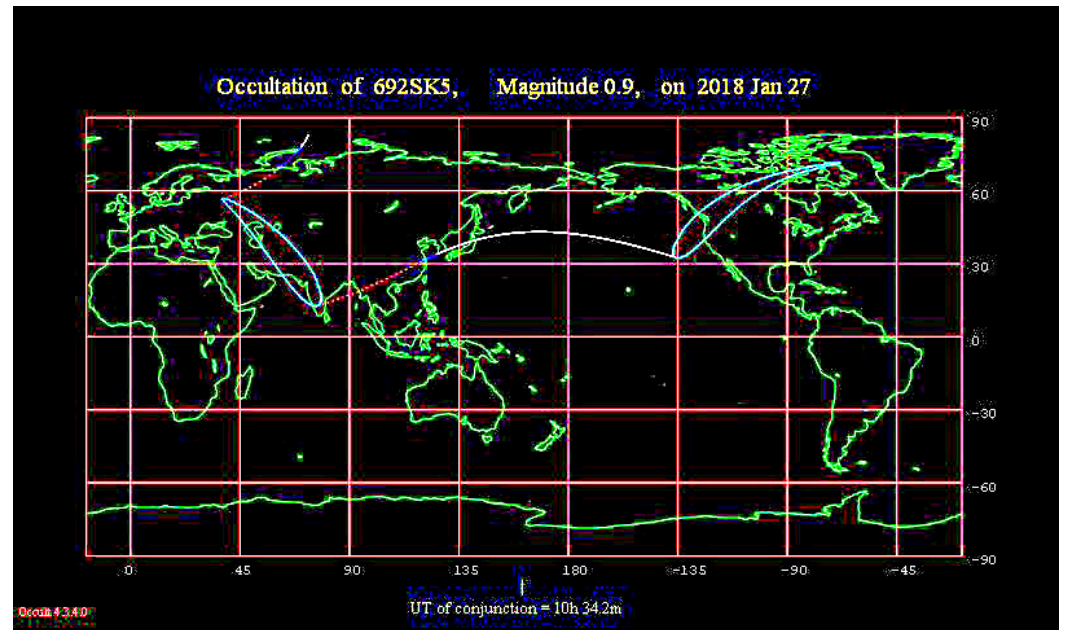
Timing for Talkeetna: P1=1:51 (not noticeable), U1=2:48 AM, U2=3:51 (total), max (darkest) 4:29, U3=5:07 (end totality), U4=6:11, P2=7:08.  
 Find timing for other locations at this website: <https://www.timeanddate.com/eclipse/in/usa> or simply adjust for your time zone.

# Occultation of Aldebaran visible from Alaska! (weather permitting)

The brightest star in Taurus, Aldebaran, will be “occulted” by the Moon (La Luna will pass directly in front of the bright reddish star) in the small hours of Saturday January 27<sup>th</sup> (the night of Friday 1/26). The following times are for Anchorage and will be only slightly off (by seconds??) for the Upper Susitna Valley. The Moon is a waxing gibbous on this date, so the leading edge will be dark. This provides for a rather exciting disappearance, when the star blinks out suddenly behind the dark limb. The reappearance at 2:50:21 (prediction for ANC) won't be so dramatic. If the sky is clear, start watching with binoculars at least a few minutes before 1:53:50. I plan to check the moon's progress starting at 1:30 AM, and look through binoculars every 5 or 10 minutes, then watch non-stop starting at 1:50.

This information is from the IOTA website

<http://www.lunar-occultations.com/iota/bstar/bstar.htm>



This image is about what an occultation looks like when the Moon is a waxing gibbous. Normally the surrounding stars don't appear this bright.

La Luna is always moving eastward relative to the background stars. Sometimes she passes directly in front of a bright star or planet, called an occultation. The portion of the Earth that can witness the event is rather narrow. The exact north/south position of the Moon amongst the stars changes significantly with latitude, since our Moon is relatively close.

Leo's brightest star **Regulus** will be occulted by the Full Moon (more difficult to observe and somewhat less dramatic) at 7:39 PM on February 28th. Regulus is occulted AGAIN a month later, this time by a waxing gibbous, the morning of March 28 at 6:25 AM.

*(This page created by Kathleen Fleming)*