

# Grazing with Team Occultation

(N.S.W. Chapter)

Presented to NACAA XXVI and TTSO8

Sunday , 20th April 2014

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**Slide 1) Title Screen**

- No description

**Slide 2) The Lunar Shadow Geometry**

- The image depicts the path of the lunar shadow cast by light from the occulting star and the moon. The general movement of the shadow is west to east
- Observers in the ellipse shown at Moonrise would see the occultation while the moon is on or close to the eastern horizon.
- Observers in the ellipse shown at Moonset would see the occultation while the moon is on or close to the western horizon.
- An observation at Moonrise or Moonset would be difficult due to the low altitude of the moon and the high volume of air the light has to pass through.
- Observers in the zone between Moonrise and Moonset and bordered by the Northern and Southern limits would see the occultation in optimal conditions.
  - Provided the sun is not above the horizon.
- Observers at th Northern and Southern Limits have the potential to observe a grazing occultation.
  - Provided the sun is not above the horizon.

**Slide 3) Observing at the Limits**

- The map shows a typical deployment of observers relative to the limit line. The goal is to site observers such that interesting lunar terrain is observed.
- Each observer will see the star disappear behind lunar mountains and reappear in valleys and each observer will record a different sequence of events.

**Slide 4) Lunar Grazing Occultation Video**

- A video of the Lunar Grazing Occultation of SAO 161680 as observed by the author on 23<sup>rd</sup> September 2012
- This is one of four sites that observed the graze.

**Slide 5) Summary of the 2012 to 2014 observations**

- No description

**Slide 6) 2012 to 2014 - Northern and Southern Limits**

- A Google Earth map depicting the graze limits and observation sites.

**Slide 7) 2012 to 2014 - Graze Expeditions, Observers and Observations**

- A chart listing the date of the graze, the observers and other statistics
- Team Occultation's(NSW Chapter) effort involved...
  - 12 grazes
  - 5 expeditions
  - 1 expedition was to two grazes
  - 6 at-home grazes
  - 9 observers
  - 107 events at the limb

**Slide 8) 2012 to 2014 - Observed Profiles**

- A compilation of all the observer limb profiles.

**Slide 9) Future Grazes Team Occultation (VIC Branch?) – hint-hint**

- Predicted grazes around Melbourne 1<sup>st</sup> May to 31<sup>st</sup> December 2014

**Slide 10) End. Questions?**