

# Successful Occultation by Triton Observed at Ginga no Mori Astronomical Observatory

We are pleased to announce that observations of the Triton occultation at the Ginga no Mori Astronomical Observatory in Rikubetsu-cho, Ashoro-gun, Hokkaido were successful through variable cloud cover. At times, the clouds almost completely obscured even the much brighter Neptune. However, luck was on our side as the time of the occultation happened to fall during a short period when the skies around Triton were partly clear.

We observed the entire occultation event, from beginning to end and were fortunate to see a central flash in our data, indicating that the Ginga no Mori Astronomical Observatory was very close to the center of Triton's shadow.

Unfortunately, the attempts at Sendai Astronomical Observatory--with Chiharu Naka of the observatory and Amanda Sickafoose of the Planetary Science Institute--were taken under uniformly cloudy skies and therefore the occultation light curve was not seen at this location. We await reports from other observers in Japan. Reports are being received from observers in many countries; a central flash was also observed at an observatory in China.

A quick review of the data shows that Triton's atmospheric size has not changed drastically from previous observations. In the coming days, we will be looking carefully at these light curves to analyze Triton's atmosphere for other changes, including the effects of global weather conditions on Triton.

The talented staff at Ginga no Mori Astronomical Observatory were instrumental in these observations, ensuring the smooth operation of the telescope as well as finding solutions to last-minute power issues. We thank Hiroyuki Tsuda (Director), Takuya Murata, and Katsuhito Nakajima for their generosity during our visit to Rikubetsu. We also thank Yurie Sato and Manami Sato for creating the very helpful models of Triton and the occulted star.

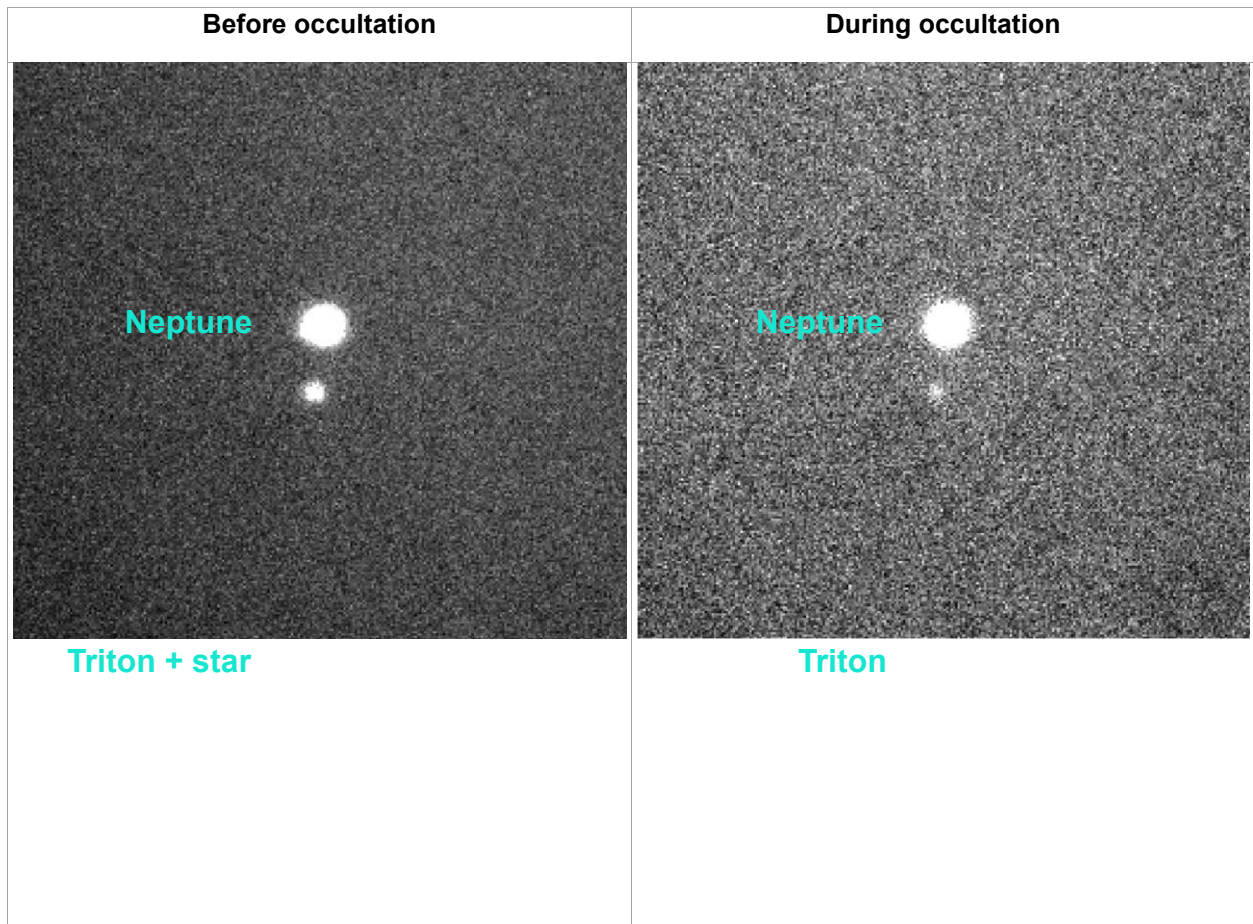


Fig. 1. On the left are Neptune (top) and the combined image of Triton + star (bottom), before the occultation. Triton and the star are very close, so they appear as one image. On the right, we see Neptune remaining, but the image below Neptune is now fainter than it was before because it is just Triton. The star is being occulted (hidden) by Triton.

Reported by:  
Dr. Amanda S. Bosh  
Dr. Stephen Levine  
Lowell Observatory  
Flagstaff, Arizona  
USA