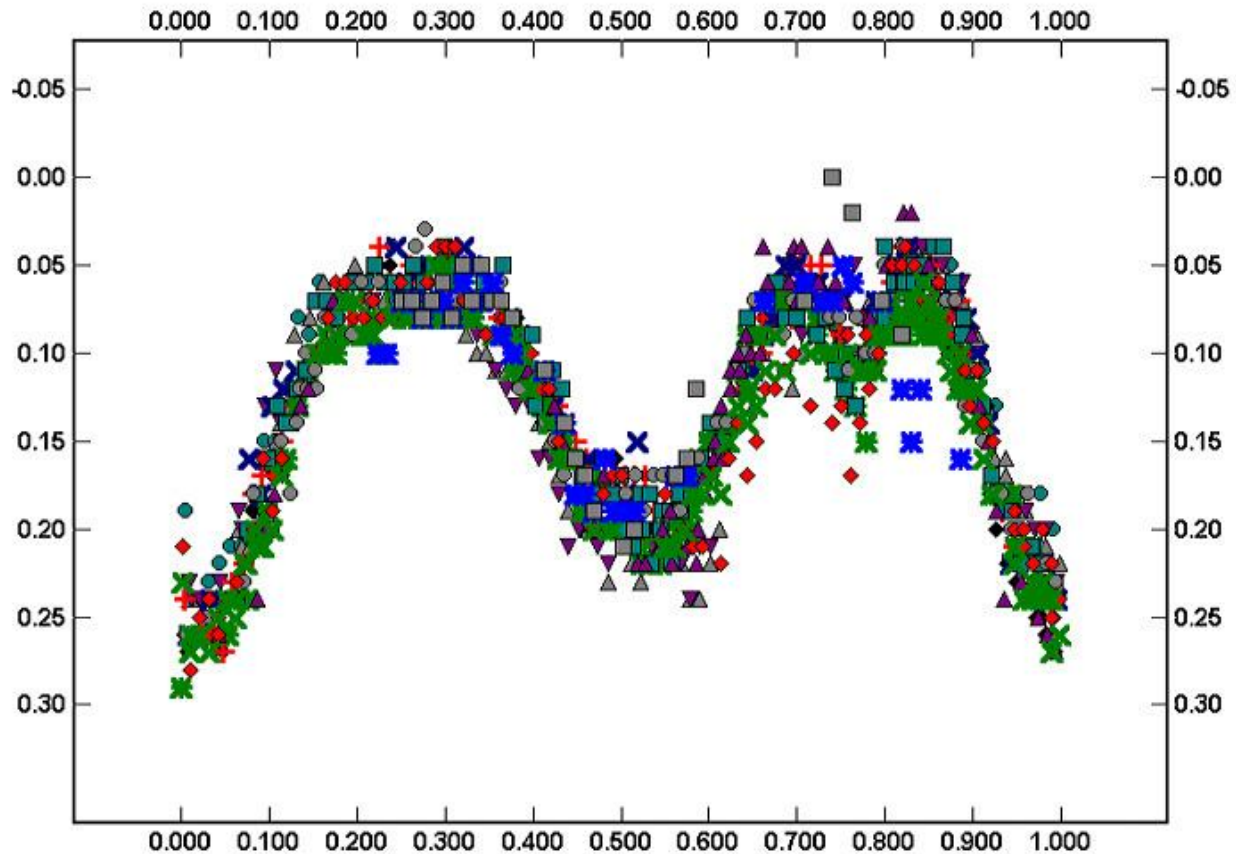


(3682) Welter

Plot for: 3682 Welter
0% Phase JD: 2452164.711178 (Corrected for light-time)



Observations September 8 to 15, 2001

Period: $3.59717 \pm .00001$

Amplitude: Varied over time

Dates Observed: September 8 to October 14, 2001

Number of Sessions: 37 (all)

Number of Observations: 3,812 (all)

Notes: The project begun by Robert Stephens at Santana Observatory in California when Welter was selected from the list of suggested targets posted on the Collaborative Asteroid Lightcurve Link (CALL) website maintained by Brian Warner. It was selected based upon its magnitude and position in the sky. Welter is a Main Belt asteroid of the Marias group and was discovered by K. Reinmuth in Heidelberg on 12 July 1923. It is named in honor of Barbara Welter, Historian of Science at the Harvard-Smithsonian Center for Astrophysics.

Only a partial light curve was obtained on 8 September 2001 due to interference from clouds. The next night, Stephens traveled to Palmer Divide Observatory in Colorado Springs, Colorado to attend a meeting of photometrists. That evening, the group used the 0.5 meter telescope at Palmer Divide to observe Welther.

The group reduced the incoming data from 09 September in real time and noticed a peculiar shape to the asymmetric lightcurve. However, it wasn't until that data was combined with data obtained at Palmer Divide on 11 September was it realized that the asteroid had an unexpected drop in brightness of about .04 magnitudes for about 1-1/2 hours.

Petr Pravec at the Astronomical Institute was contacted to see if they could assist in an observing campaign to detect any additional attenuation events. Several observers from Ondrejov Observatory participated. Glenn Malcolm who operates Roach Motel Observatory also contributed observations.

The purpose of the collaborative effort was to find additional attenuation events and to determine if Welther was a binary asteroid. Other suspected attenuation events were found. However, remeasurement of the original images using different methods and software showed all suspected events to be an artifact of the measurement process.

Still, the work done by the observers gives an example of how collaborative efforts can be done and also provided a wealth of data which in the future can be used to determine the pole position of Welther.

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