



## Sun Spot #596 with Solar Granulation and Penumbral Filaments Extending into the Umbra

4/23/2004

Location: 3161 Winston, Toledo, Ohio

Conditions: Daytime, approx. 6:35pm, slight breeze, stability 4/10, slight haze in sky, mid 60s.

Telescope: Meade LX-90 8 inch SCT in polar alignment mode with Orion 100,000:1 solar filter over front:  
Add shorty 2X barlow lens.

Camera: Meade Lunar-Planetary Imager (LPI):

Shutter: 0.016 sec // Gain: 0 // Offset:85 // Histogram151-181.

Couldn't track (spot is not a "bright object"). Acquired 550 individual images.

Capture direct to USB port on HP ze5185 notebook using Meade Autostar Suite in "acquire" mode.

Make "Sun10\_042304\_LPI\_avg20of200aregx\_proc2":

Registax:

Input the first 200 of the 550 images into Registax

Alignment filter = 6, Quality filter = 3 start, 7 width

Stack using image quality at min quality 87%, difference 77%, n=20

Wavelet filter proc: init 1, step 2, band 1-10.5 with Noise Reduction / 2-21.2 / 3-10.5 / 4-2.4 NR / 5-2.4 NR / 6-4.4

AstroArt 3.1:

Crop // Set floating point data // resize 200% with gauss interpolation

Unmask 1, 2, unadaptive

Clip minimum to zero // histogram RF: 0:268, B 202, V 0:248log13 clicks from linear.

MS Word: Brightness 55%, Contrast 45%

Larry Low – Astrophotunist

5/1/2004