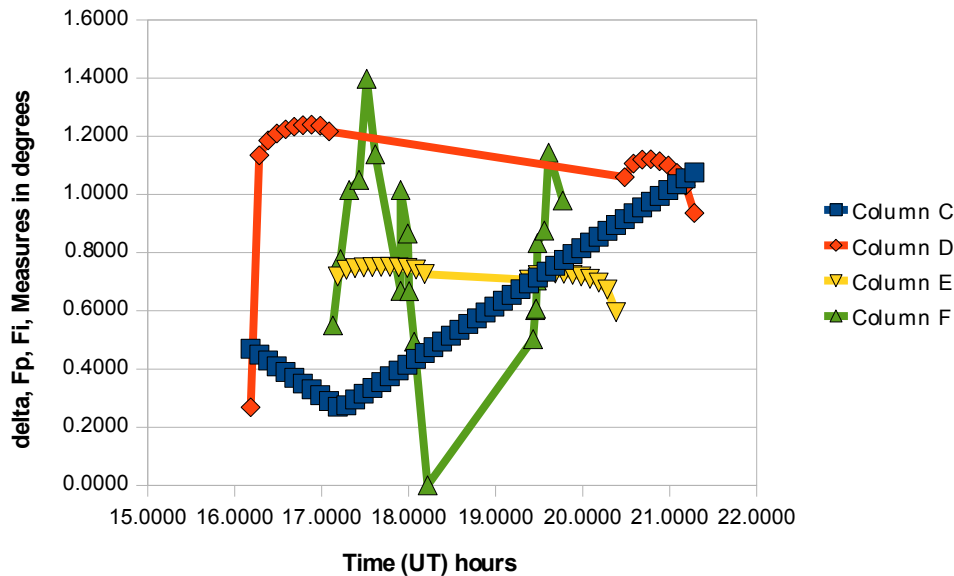


Measurement of 8mm Movie to DVD images of Total Lunar Eclipse of 19970916

A sony TR-511E handycam was used to record an 8mm movie of the total lunar eclipse of *19970916* from my site at Calwell, ACT Australia.

The movie was copied to a DVD and captured frames were calibrated and measured with *Digitizer*, the topocentric penumbra and umbra were computed with programs *ILEEP41.exe* and *ViaX8.exe*. The comparison of the computed and measured data is shown in the chart below:

19970916 SoulsbyC



LEGEND

Column C is the computed slant angle *delta*
Column D is computed topocentric penumbra (*Fp*) in degrees
Column E is computed topocentric umbra (*Fi*) in degrees
Column F is the measured image umbral semi-diameter in degrees.¹

COMMENTS

The images were affected by intermittent cloud so some of the measures were quite high and non-typical, but all measures taken have been included.

CONCLUSION

The wide scatter in the measures due to cloud spoilt the comparison, but the technique for transferring old 8mm videos to DVD for measurement has been shown. The fit of measures to the computed topocentric umbra is good just after first and third contacts where cloud did not interfere.

Produced by the *Isabella Plains Lunar Observatory Australia* 20090122.

¹ All measurements have been plotted even though cloudy conditions affected most images.