BAA/ALPO TRANSIENT LUNAR PHENOMENA **2003 Sep**

For July, observations have been received from: Clive Brook (Plymouth, UK), David Darling (Sun Praire, USA), Walter Haas (Las Cruces, USA), Cecil Post (Las Cruces, USA), Brendan Shaw (UK), and Robert Spellman (Los Angeles, USA). If readers remember from a few months back, there was an interesting May 10 UTC 03:15 observation from Robert Spellman of Los Angeles concerning the central peak of Tycho with E-wards projecting spur-like features coming off it's N & S sides. Three possible explanations for this were: 1) a TLP, 2) atmospheric flaring, 3) a video artifact. I am happy to say that observations made on July 8/9th by Robert Spellman and others, under exactly the same illumination conditions, have confirmed that the video artifact explanation is the least likely simply because the effect did not recur when Robert captured new images. Sketches by Walter Haas of the central peak on July 9th indicated more than one component to the central peak emerging from shadow, but no sign of spur-like features. This is also confirmed by an examination of archived photographs (at same colongitude) by Peter Foley, although discussions with Peter suggested that perhaps two of the components of the central peak were to the East, and maybe under variable seeing conditions, these might appear to merge and look like spurs? Fortunately new observing opportunities for repeat illumination for Tycho's central peak under the May 10th conditions can be seen by southwestern US observers this month - see below for further details.

Also of great interest in July were attempts to see the central peak of Tycho illuminated indirectly by scattered light off the W. illuminated rim. This was imaged by Brendan Shaw back in May 9 at 21:04UTC when the Sun was at an altitude of +1.2 deg above the central peak. Brendan Shaw obtained an image of Tycho at 20:53UTC on 7th July when the Sun was at an altitude of just +0.8deg. Although there was a very slight hint of a central peak and in the correct place, after examining other images, I deduced that this was just image noise for the +0.8 deg observation. Marie Cook observed on 7th July up until 22:00 UT (almost identical illumination to Brendan's May 9th observation), but failed to spot the central peak. It should be said however that transparency was unfavourable during her observing session.

In reponse to the recent article about the visibility of the pseudo central peak/spot on the floor of Proclus, Marie Cook has summarized all her observations of the crater, listing when the effect can be seen. This will be of great use in checking out Bartlett's claims about whether it was normal, or not, to see the central pseudo peak/spot at different colongitudes.

The following repeat illumination and libration events occur for September:

Event: Tycho (Spellman, 2003 May 10) can be seen on/from (UTC): 2003 Sep 05 LA, Las Cruces, Phoenix (03:20) – *[check forspur-like features coming off central peak]*

Event: Maniulus (Kern, 1972 May 22) can be seen on/from (UTC): 2003 Sep 06 Atlanta, DC (00:00- 00:59); Madison (01:00-01:02) - *[check for variability in SW wall brightness]*

Event: N.rim of Mare Crisium (Kemp, 1972 May 22) can be seen on/from (UTC): 2003 Sep 06 Atlanta, DC (00:00-03:42); LA, Winnemucca (03:00-03:42); Las Cruces (02:00-03:42); Madison (01:00-03:42) - *[Check for change in brightness]*

Event: Archimedes (Pasternak, 1973 Jun 11) can be seen on/from (UTC): 2003 Sep 07 Atlanta, DC, Madison (02:28-03:41); LA, Winnemucca (03:00-03:41) - *[check for colour on east of crater]*

Event: Alphonsus (Harris, 1966 Aug 27) can be seen on/from (UTC): 2003 Sep 07 DC, Madison (04:01-06:44); LA, Las Cruces, Winnemucca (04:01-08:15) - *[Check for variability in dark patches on floor]*

Event: Ross D (Harris, 1966 Aug 27) can be seen on/from (UTC): 2003 Sep 07 DC, Madison (04:01- 06:44); LA, Las Cruces, Winnemucca (04:01-08:25) - *[Check E wall for obscuration]*

Event: Gassendi (Moore, 1966 Sep 25) can be seen on/from (UTC): 2003 Sep 07 DC, Madison (06:22-06:44); LA (06:22-09:48); Las Cruces, Winnemucca (06:22-08:57) - *[Check for red patches]*

Event: Plato (North, 1992 May 13) can be seen on/from (UTC): 2003 Sep 07 Germany, Italy, UK (19:09-22:49) - *[Check for colouration of crater and visibility of floor craterlets - are these too clear perhaps?]*

Event: E. of Picard (Moore, 1948 Aug 17) can be seen on/from (UTC): 2003 Sep 08 Atlanta, DC, Madison (03:42-07:48); LA, Las Cruces, Winnemucca (04:42-09:28) - *[Check for cloud-like patches]*

Event: Alphonsus (Astronet, 1966 Aug 28) can be seen on/from (UTC): 2003 Sep 08 Atlanta, DC, Madison (03:56-07:48); LA, Las Cruces, Winnemucca (04:56-09:51) - *[Check for brightenings in dark patches]*

Event: Herodotus (Lena, 2002 Sep 18) can be seen on/from (UTC): 2003 Sep 08 Atlanta, DC, Madison (05:08-07:48); LA, Las Cruces, Winnemucca (05:08-09:02) - *[Check for pseudo craters]*

Event: Aristarchus (Ventzke, 1972 Apr 25) can be seen on/from (UTC): 2003 Sep 08 Atlanta, DC, Madison (07:25-07:48); LA (08:07-10:51); Las Cruces (07:25-09:59); Winnemucca (08:30-10:43) -*[brightening & colour on inner N wall]*

Event: Aristarchus (Pasternak, 1973 Apr 15) can be seen on/from (UTC): 2003 Sep 08/09 Germany (22:10-

01:42); Italy (22:00-00:59); UK (22:10-02:44); Atlanta, DC (00:00-03:14); LA, Winnemucca (03:00- 03:14); Las Cruces (02:00-03:14); Madison (01:00-03:14) - *[Check for colour on N. wall]*

Event: Aristarchus (Bartlett, 1955 May 05) can be seen on/from (UTC): 2003 Sep 09 UK (01:58-02:44); Atlanta, DC; Las Cruces, Madison (03:18-06:00) - *[Check for colour in E. half of floor]*

Event: Aristarchus (Delano, 1967 Sep 17) can be seen on/from (UTC): 2003 Sep 09 Atlanta (05:16-06:54); DC (05:37-06:54); Las Cruces (06:28-06:54) - *[Check brightness and colour of craterlet on SW rim]*

Event: Near Aristarchus (Schroter, 1788 Apr 19) can be seen on/from (UTC): 2003 Sep 10 Atlanta, DC (00:00-02:42); Las Cruces (02:00-02:42) - *[Check for brilliant area and other bright spots near Aristarchus]*

Event: Aristarchus (Schlegel, 1973 Apr 16) can be seen on/from (UTC): 2003 Sep 10 Germany (02:51-02:57); Italy, UK (02:51-03:46); Atlanta, DC, Madison (02:55-06:45); LA, Las Cruces (03:50-06:45); Winnemucca (04:13-06:45) - *[Check for colour on N. wall]*

Event: Proclus (Bartlett, 1950 Jul 29) can be seen on/from (UTC): 2003 Sep 10 Italy (18:00-18:21) - *[Check visibility of central peak]*

Event: Agrippa (Bartlett, 1961 Oct 24) can be seen on/from (UTC): 2003 Sep 10/11 Germany, Italy, UK (20:14-00:17); DC (00:00-00:17) - *[Is dark landslide feature on NW wall visible?]*

Event: Agrippa (Bartlett, 1966 Jul 03) can be seen on/from (UTC): 2003 Sep 11 Germany, Italy (01:43-03:59); UK (01:43-02:59); Atlanta (05:00-05:57); DC, Madison (02:46-05:57) - *[Observe central peak in detail]*

Event: Aristarchus (Rose, 1973 Feb 17) can be seen on/from (UTC): 2003 Sep 11 Atlanta (05:00-07:50); DC (03:51-07:12); LA, Las Cruces, Winnemucca (03:51-08:04); Madison (03:51-07:50) - *[How diffuse is W. rampart?]*

Event: Aristarchus (Bartlett, 1956 Jan 28) can be seen on/from (UTC): 2003 Sep 11 Atlanta; Madison (07:54-10:59); DC (07:54-09:59); LA, Las Cruces, Winnemucca (07:54-12:00) - *[Check for colour on E.NE rim]*

Event: Aristrachus (Foley, 1978 Nov 15) can be seen on/from (UTC): 2003 Sep 11 Germany (19:00-21:01); Italy (19:00-20:16); UK (20:00-21:01) - *[Check for colour]*

Event: Proclus (Bartlett, 1957 Mar 17) can be seen on/from (UTC): 2003 Sep 12 Atlanta (01:00-02:59); DC (01:00-03:34); Las Cruces (03:00-03:34); Proclus (02:00-03:34) - *[Sketch/image interior detail]*

Event: Aristarchus (Bartlett, 1957 Mar 17) can be seen on/from (UTC): 2003 Sep 12 Atlanta (01:00- 02:59); DC (01:00-03:59); Las Cruces (03:00-03:59); Madison (02:00-03:59) - *[Check for colour]*

Event: Aristarchus (Bartlett, 1964 Oct 24) can be seen on/from (UTC): 2003 Sep 14 Atlanta, Madison (08:14-10:59); DC (08:14-09:59); Las Cruces (08:14-11:12) - *[Check for colour]*

Event: Rocca (Haas, 1938 Apr 26) can be seen on/from (UTC): 2003 Sep 22 Atlanta (08:00-10:00); DC (07:01-09:59); LA; Las Cruces, Winnemucca (~10:00); Madison (08:00-10:00) - *[colour/brightness of dark area?]*

Further predictions, including the more numerous illumination only events can be found on the following web site: http://www.lpl.arizona.edu/~rhill/alpo/lunarstuff/ltp.html . For members who do not have access to the internet, please drop me a line and I will post predictions to you. If you would like to join the TLP telephone alert team, please let me know your phone No. and how late you wish to be contacted. If in the unlikely event you see a TLP, please give me a call on my cell phone: +44 (0)798 505 5681 and I will alert other observers. Note when telephoning from outside the UK you must not use the (0). When phoning from within the UK please do not use the +44!

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