

## BAA/ALPO TRANSIENT LUNAR PHENOMENA SECTION

2003 Aug

Observations have been received for June from: myself (UK), members of the Breckland Astronomical Society (UK), Clive Brook (UK), Marie Cook (UK), David Darling (Wisconsin, USA), Walter Haas (Las Cruces, USA), Brendan Shaw (UK), and Robert Spellman (Los Angeles). Despite the Moon's lowering declination, at least 6 hours of observations were made and possibly a lot more. However not all observers are quoting start and end times of their observing sessions. David Darling, myself and Brendan Shaw have been busy imaging Earthshine – In June David studied the visibility of Earthshine past last quarter. Brendan Shaw has been busy experimenting with videoing the Moon in through coloured filters. Following last month's article about the visibility of detail in the central peak of from scattered light off the W. rim at sunrise, Peter Foley (former BAA Lunar Section director & TLP coordinator) phoned me to say that he would be checking through his extensive archive of negatives for images at similar longitudes.

On 2003 Jun 12<sup>th</sup> UTC 03:00-06:05 from the southwest USA, illumination and viewing conditions repeated for a possible sighting of a pseudo peak in Herodotus, as seen by Peter Grego (Society of Popular Astronomy) back in 1985 May 31. A drawing made by Peter Grego can be found on: <http://website.lineone.net/~petergrego/ft105.htm> . Two other repeat illumination events for Herodotus were also occurring around this time: Bartlett's observation of a bright spot on the crater floor on 1966 Jun 01 and Porta's report of colour between Herodotus and the Cobra Head on 1965 Jun 11/12. During (or close to) the predicted times on 2003 Jun 12<sup>th</sup>, Walter Haas (ALPO) was observing from Las Cruces, NM, and saw no evidence of a pseudo peak/bright spot or colour. He did however notice that there was a fuzzy light band on the inside edge of the interior shadow (seeing 7, transparency 3.5 – US style & 12.5" Newtonian used). This remained a mystery until Jun 13<sup>th</sup> when it became clear that this was a ridge or terrace, and indeed had been seen before by ALPO astronomers back in 1954 Sep 10.

Readers may have heard in the media about a paper by Buratti and Johnson (published in Icarus) where the authors used the published coordinates of the 1953 Nov 15 Stuart Flash to identify a "candidate" ~1 km diameter crater with the correct colour characteristics for a fresh impact. The authors did a good job at attempting to identify this "candidate" crater with the little information they had, however they did not have access to a high quality copy of the original Stuart photograph, not access to the range of past professional photographs that amateur astronomers now know about. Subsequent measuring of the 1953 photograph by amateur astronomers from ALPO and the Sky and Telescope revealed the true position of the Stuart flash to be ~30 km away from the candidate Buratti and Johnson crater. Theory and observation tells us that impact flashes do not normally last several seconds, as Stuart saw and photographed, so the mystery of the 1953 flash remains still remains an enigma!

The following repeat illumination and libration events occur for August:

Event: Manilius (Mansfield, 1971 May 04) can be seen on/from (UTC): 2003 Aug 07 New Zealand (06:00-08:26) – *[check for colour]*

Event: Tycho (Barcroft, 1940 Dec 09) can be seen on/from (UTC): 2003 Aug 07 New Zealand (06:36-10:31) – *[check for luminosity on W. rim of outer slope]*

Event: La hire (Wilkins, 1922 Nov 28) can be seen on/from (UTC): 2003 Aug 07 New Zealand (08:54-12:49) – *[look for a white streak cutting through a shadow]*

Event: Alphonsus (Astronet, 1966 Aug 28) can be seen on/from (UTC): 2003 Aug 09 Italy (21:00-22:19); UK (20:00-22:19) – *[check for brightenings of dark patches]*

Event: Aristarchus (Ventzke, 1972 Apr 25) can be seen on/from (UTC): 2003 Aug 09/10 Atlanta, DC, Harrisburg, New York, Orlando, Pittsburgh (~01:00); Puerto Rico (23:00-01:00); Italy (21:00-00:58); UK (20:00-00:47) – *[check brightening and colour on inner N. wall]*

2003-Aug-10 06:00-09:06 95% end\_Cobra\_Head\_Arrlola! 1966-Jul-30 [4115]

Event: Cobra Head (Arrlola, 1966 Jul 30) can be seen on/from (UTC): 2003 Aug 10 (06:00-09:06) – *[look for colour]*

Event: Aristarchus (Delano, 1967 Sep 17) can be seen on/from (UTC): 2003 Aug 10 Italy (19:00-19:12) – *[study brightness/colour of craterlet on NW rim]*

Event: Torricelli B (Mobberley, 1985 Sep 27) can be seen on/from (UTC): 2003 Aug 11 Puerto-Rico (03:08-04:00); New Zealand (06:00-06:11) – *[check for brightenings and star-like points inside crater]*

Event: Agrippa (Bartlett, 1966 Jul 02) can be seen on/from (UTC): 2003 Aug 11 New Zealand (12:34-16:56) – [*study appearance of central peak*]

Event: Agrippa (Bartlett, 1967 Sep 18) can be seen on/from (UTC): 2003 Aug 11 New Zealand (17:57-18:58) – [*check visibility of landslip feature on NW wall*]

Event: Aristarchus (Schlegel, 1973 Apr 16) can be seen on/from (UTC): 2003 Aug 11 Italy (19:00-19:11) – [*is Aristarchus exceptionarily bright?*]

Event: Aristarchus (Moore, 1996 Dec 24/25) can be seen on/from (UTC): 2003 Aug 12 Atlanta (02:41-05:59); DC, Harrisburg, Houston, Madison, Orlando, Pittsburgh (03:00-06:36); LA, New York, Winnemucca (04:00-06:36); Las Cruces, Phoenix (03:43-11:59); Puerto-Rico (02:41-06:36); Italy, UK (02:41-03:43) – [*check for colour on S. wall and floor*]

Event: Proclus (Bartlett, 1950-Jul-29) can be seen on/from (UTC): 2003 Aug 12 Atlanta (04:02-05:59); Houston, Orlando (04:02-06:42; Puerto-Rico (02:57-06:42); New Zealand (06:00-06:42) – [*invisibility of central pseudo-peak?*]

Event: Agrippa (Bartlett, 1961 Oct 24) can be seen on/from (UTC): 2003 Aug 12 Atlanta, Harrisburg, Orlando, Pittsburgh, Puerto-Rico (08:39-09:53); Houston, Madison (08:39-10:47); LA, Las Cruces, Phoenix (08:39-11:59); Winnemucca (08:39-12:40); New Zealand (09:39-12:40) – [*study NW wall*]

Event: Hyginus N (Klein, 1877 May 27) can be seen on/from (UTC): 2003 Aug 12/13 Germany, Italy, UK (21:36-01:32), Harrisburg (01:00-01:32) – [*sketch or image*]

Event: Aristarchus (Foley, 1978 Nov 15) can be seen on/from (UTC): 2003 Aug 13 Atlanta, Harrisburg, Houston, Madison, Orlando, Pittsburgh, Puerto-Rico (02:27-09:22); LA, Phoenix, Winnemucca (04:00-09:22); Las Cruces, New York (03:00-09:22), Germany (02:27-02:59); Italy, UK (02:27-03:59) – [*check for colour*]

Event: Plato (Barker, 1978 Nov 16) can be seen on/from (UTC): 2003 Aug 13 Germany (02:51-02:59); Italy (02:21-03:59); UK (03:53-03:59) – [*check texture/colour of floor*]

Event: Aristarchus (Kidger, 1978 Nov 16) can be seen on/from (UTC): 2003 Aug 14 Atlanta, Harrisburg, Madison, New York, Orlando, Pittsburgh (04:00-06:47); Germany, Italy, UK (02:51-03:59) – [*check for colour*]

Event: Aristarchus/Menelaus/Proclus (Robinson, 1975 Feb 27) can be seen on/from (UTC): 2003-Aug-14 Atlanta, Harrisburg, New York, Orlando, Pittsburgh, Puerto-Rico (09:04-09:59); Houston, Madison (09:04-10:59); LA, Las Cruces, Phoenix (09:04-11:59); Winnemucca (09:04-12:59); New Zealand (10:03-15:38) – [*Compare visibility of colour on all these craters*]

Event: Aristarchus (Le Croy, 1975 Feb 28) can be seen on/from (UTC): 2003 Aug 14 New Zealand (14:22-18:28) – [*check for colour and flashes*]

Event: Aristarchus (Kozyrev, 1961 Nov 27) can be seen on/from (UTC): 2003 Aug 15 New Zealand (14:15-18:59) – [*check for colour*]

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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