

THE LUNAR OBSERVER

A MONTHLY NEWSLETTER FOR STUDENTS OF THE MOON SEPTEMBER 1998
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FEATURE OF THE MONTH

Beer & Feuillee (27°N - 9°W)



Sketch by Robert H. Hays, Jr. - Worth, Illinois
15cm Reflector - 170X - Seeing 7/10

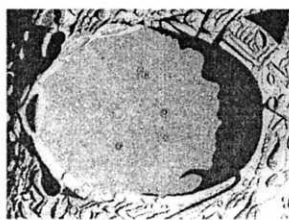
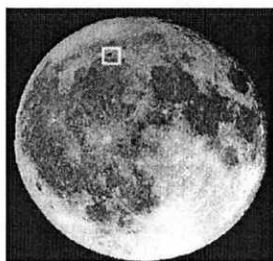
In the southeastern corner of Mare Imbrium lies an interesting pair of craters, Beer & Feuillee. Measuring approximately 10 km, they are conspicuous only because they are found on the relatively smooth plain of a mare and not the rugged terrain of the highlands.

On the night of May 4/5 1998, Robert Hays sketched the pair and submitted the following report:

"I checked the area around these craters while observing occultations on the night of May 4/5, 1998. These are two small craters between Archimedes and Timocharis. They are practically the same diameter but Beer casts a much longer shadow with its rim. A broken ridge was noted to the south and wrinkles to the north. There was a scattering of smaller craters east of Beer; one was quite elongated. A conspicuous dome lies southeast of Beer. This feature had a slightly squarish shape, was about 3/4 Beer's diameter, and cast a definite shadow not just shading. Another smaller dome was noted farther to the northeast among the craterlets."

Beer and Feuillee are also interesting to observe because they, like the Messier twins, appear to change size and shape as lighting conditions change. The effect is, of course, an optical illusion but interesting none the less. Beer and Feuillee can be found on Map #21 of Rukl's Atlas of the Moon.

EXPLORING THE MOON



Sketch by H.P. Wilkins - 4/3/52

Although the magnificent crater Plato is one of the most frequently observed features on the Moon, it is always worthy of another visit. Beginning observers will find it easy to locate since its dark floor stands out sharply from the bright highland area that separates Mare Imbrium from Mare Frigoris. Although the floor of Plato appears to be smooth and featureless under low power, beginners should still be able to spot a section of the western wall that has slumped onto the crater floor. It is seen in the above sketch as a shadow filled triangle

More challenging targets are the small craterlets on the floor of Plato. There are four small craters ranging in size from 1.7 km to 2.2 km on Plato's floor that serve as good tests for telescope optics and seeing conditions. It is these craters that are of great interest to LTP hunters since there have been numerous reports of one or more of the craterlets being obscured while the others were plainly visible.

At sunrise on Plato the 2,400 meter high mountains on its eastern rim cast long jagged shadows across the crater floor. In 1952, H.P. Wilkins made the above sketch with the 33 inch Meudon Refractor and recorded a strangely curved shadow (Plato's Hook) that is elusive indeed. Using Harry Jamieson's Lunar Observer's Tool Kit we find that the next three dates when the lighting conditions will closely approximate those of the Wilkins drawing are: January 26, 1999 (1:54 UT) September 19, 1999 (1:12 UT) and November 17, 1999 (2:28 UT). Although these are the times when it is most likely that Plato's Hook can be seen, every sunrise holds the possibility of a sighting.

Sunrise is not the only interesting time to observe Plato. Under a high sun several bright spots and delicate white streaks can be seen, but they are not easy targets and many sketches of the streaks by prominent observers disagree. Part of the disparity seems to be the changing aspect of the streaks as the angle of the sunlight varies. A series of observations throughout a lunation, and from one lunation to another, would be an interesting project to pursue.

As always, your sketches, images, and notes from this exploration are welcomed and encouraged.

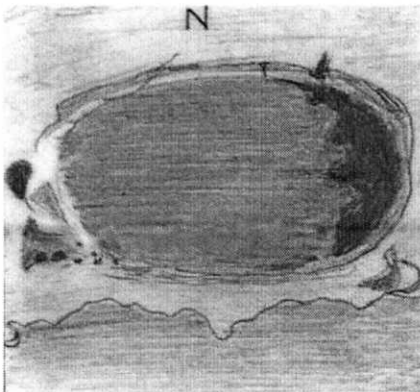
Observations Received During The Month

- Doug Hansen - San Diego, California Video Still of Northeast Quadrant near First Quarter
- Robert H. Hays, Jr. - Worth, Illinois Sketches of Beer & Feuillee - Wichmann - Cauchy and
Vicinity - O'Neill's Bridge Area
- David Lehman - Fresno, California Sketches of Schiller - Langrenus - Messier Twins - Bailly -
Mare Orientale
- Michael Mattei - Littleton, Mass. CCD images of Ptolemaeus, Alphonsus, and Arzachel -
Plato (2) - The Straight Wall
- Daniel del Valle - Aguadilla, Puerto Rico Sketch of Plato

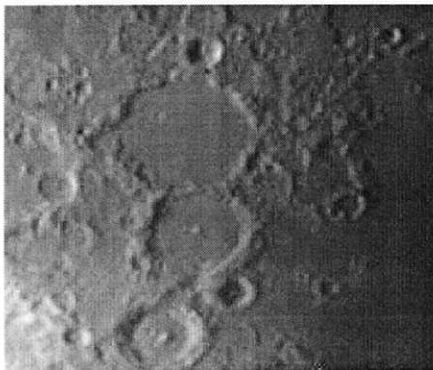
Lunar Calendar For September 1998 (UT)

4.....	02:00.....	Moon 2.6 Degrees North of Uranus
6.....	11:22.....	Full Moon / Penumbral Eclipse of the Moon
7.....	04:00.....	Moon 0.5 Degrees South of Jupiter
8.....	06:00.....	Moon as Perigee (361,365 km)
13.....	01:59.....	Last Quarter
20.....	17:02.....	New Moon (Start of Lunation 937)
23.....	22:00.....	Moon at Apogee (406,158 km)
28.....	21:11.....	First Quarter

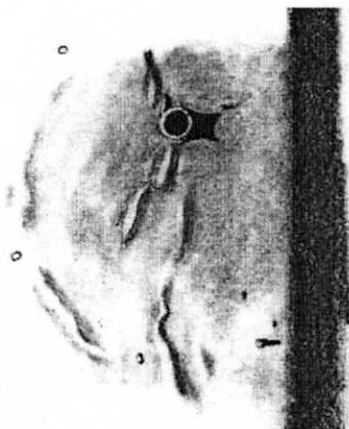
Topographical Studies



Plato
Sketch by Daniel del Valle
Aguadilla, Puerto Rico
90mm Maksutov-Cassegrain
129X - Seeing 6/10
August 2, 1998



Ptolemaeus, Alphonsus, & Arzachel
CCD Image by Michael Mattei
Littleton, Massachusetts
150mm Schupman - f/15 1.5 sec.
April 16, 1997



Bessel
Sketch by David Lehman
Fresno, California
150mm Newtonian
220X - Seeing 5/10
June 1, 1998