THE LUNAR OBSERVER

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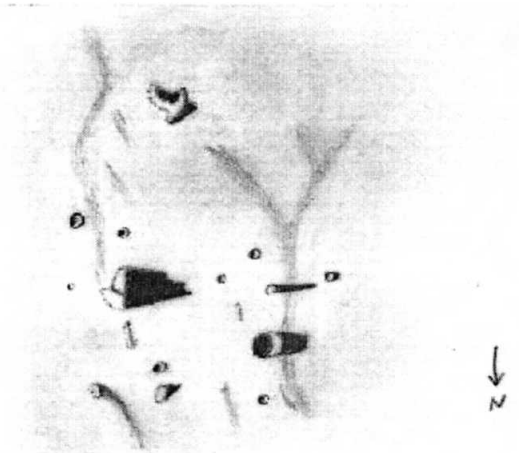
FEATURE OF THE MONTH

Mons Piton - (41°N - 1°W)



Sketch by Robert H. Hays, Jr. - Worth, Illinois

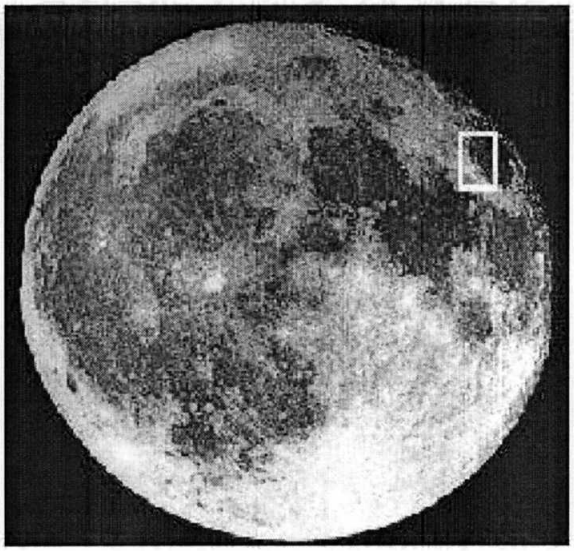
150mm Reflector - 170X - Seeing 8/10

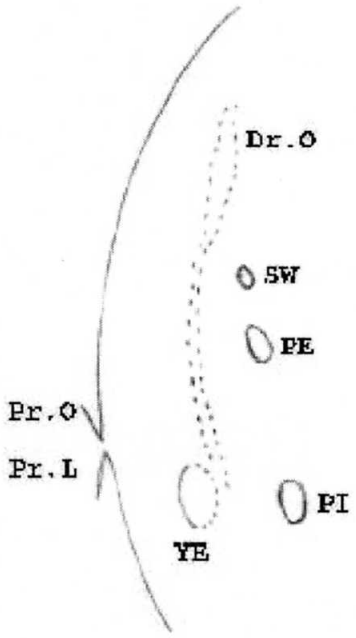
In the northeast corner of Mare Imbrium stands Mons Piton, an isolated mountain peak 2250 meters high with a base measuring 25 km in diameter. On the evening of April 4, 1998, Robert Hays sketched Mons Piton and submitted the following report:

"I went on a binge on the night of April 4/5, 1998, timing six occultations and observing many variable stars later. I also sketched Piton and vicinity. Piton is a large, isolated peak in northeast Mare Imbrium that may be familiar to most lunar observers. The long shadows of this mountain had at least three distinct points, with the highest point of this peak being toward the north end. A strip of shadow split the sunlit portion of Piton. The jagged, irregular mountain to the south is Piton Gamma, and the sizeable crater west of Piton is Piazzi Smyth. Several small craters and peaks sprinkle the area. Substantial north-south wrinkle ridges were noted near Piton and just west of Piazzi Smyth. The long shadows cast by Piazzi Smyth and the small peak P.S.Beta may be due to lower ground west of a wrinkle ridge. This was quite an interesting area to sketch."

Mons Piton is also one of the most active LTP sites on the Moon. It can be found on Map #12 of Rukl's Atlas of the Moon. Try observing 7 or 8 days after New Moon.

EXPLORING THE MOON





One area of the Moon to explore this month is the western shore of Mare Crisium, the Sea of Crises. Although Mare Crisium appears to be oval in the north-south direction, it is actually oval in the east-west. The illusion is caused by foreshortening since the mare is so close to the Moon's eastern limb. Mare Crisium is somewhat unique in that it is completely isolated from the other maria and still has all of its circle of outer mountains intact.

There are few prominent craters on Mare Crisium and all of them lie in the extreme western portion of the mare. Since the craters are so isolated they make good targets for beginning observers and help give the novice a sense of scale. Using the simplified finder map above first note Picard (PI) with a diameter of 23km. Picard is a bowl shaped crater with bright walls that rise 2,400 meters above the floor and has a small central hill. Next is Peirce (PE) with a diameter of 18.5km. Peirce is similar in general shape with walls that are about 2,100 meters above the floor. It, too, has a small central hill but also contains a craterlet on the inner southeast wall. And, lastly, comes Swift (SW) at 11km

Somewhat larger but less conspicuous is Yerkes (YE). Yerkes, a 36km flooded crater, has most of its walls intact except for the eastern rim which is quite sunken. The walls ofYerkes also have extensions to the north and south which are probably the remnants of adjacent craters that were almost totally submerged when lava flows covered the mare floor. Look, too, for a very low central hill; it can be tough to spot. Another low profile feature associated with the mare lava flows is Dorsum Oppel (Dr.O), a nice wrinkle ridge which runs for 300km along the western shore.

More experienced observers, and those with larger instruments, might spend some time hunting for O'Neill's Bridge (TLO April, 1998). O'Neill's Bridge was once believed to be a natural arch that spanned the distance between Promontorium Olivium (Pr.O) and Promontorium Lavinium (Pr.L). It has since been proven to be an illusion created by a shallow crater in the area but it is still fun to search for the "feature" and recapture the illusion. O'Neill's Bridge is best seen three or four days after Full Moon.

Your sketches, images, and notes from this exploration are welcomed and encouraged.

Lunar Calendar for August 1998 (UT)

7	00:00	Moon 2.4 Degrees North of Neptune
8	01:32	Penumbral eclipse of the Moon
8	02:11	Full Moon
11	12:00	Moon at Perigee (366,436 km)
14	19:50	Last Quarter
16	02:00	Moon 0.3 Degrees North of Aldebaran
22	02:03	New Moon (Start of Lunation 936)
27	06:00	Moon at Apogee (405,136 km)
30	05:07	First Quarter

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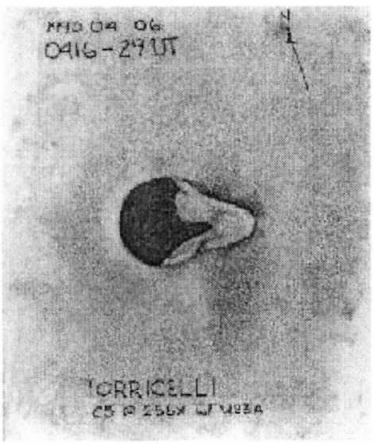
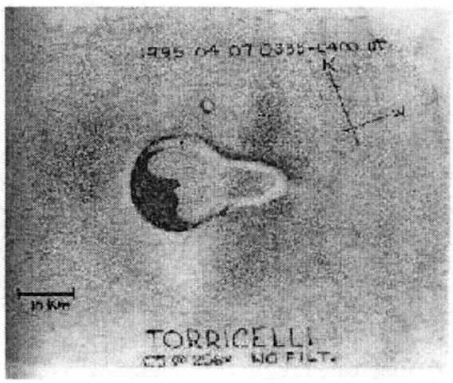
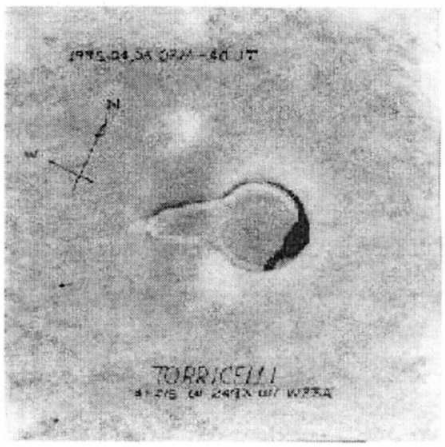
Topographical Studies



4/6/95 C5 - 256X



4/7/95 C5 - 256X



4/8/95 14" f/5 - 249X

Sketches of Torricelli by Rik Hill - Tucson Arizona

Rik Hill began these fine sketches by video taping the subject crater in 15 to 25 minute bursts. He then made the drawings while replaying the video. The use of a different telescope for the third drawing above accounts for the change in orientation.

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Observations Received During The Month

Doug Hansen.....San Diego, California.....CCD image of Serpentine Ridge