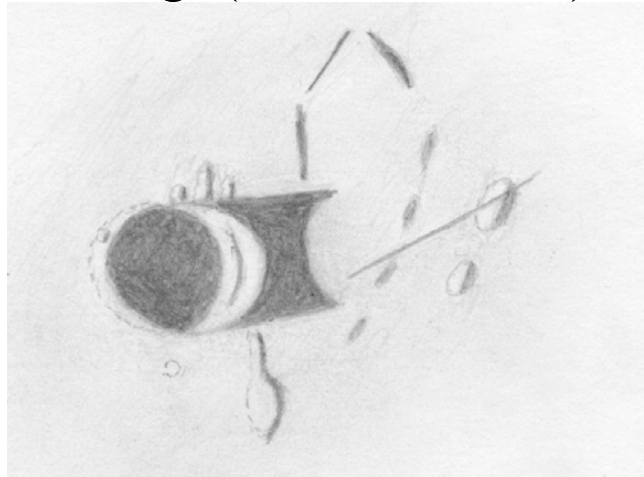




THE LUNAR OBSERVER

A NEWSLETTER FOR STUDENTS OF THE MOON FEBRUARY 1999
EDITED BY: BILL DEMBOWSKI - ALPO COORDINATOR, LUNAR TOPOGRAPHICAL STUDIES
219 OLD BEDFORD PIKE - WINDBER, PA 15963 - DEMBOW @ TWD.NET

FEATURE OF THE MONTH Burg (45.0N - 28.2E)



Sketch by Robert H. Hays, Jr. - Worth, Illinois
15cm Newtonian - 136X - February 13, 1997 - Seeing 4-6/10

In the northeast corner of the Moon lies Lacus Mortis, the Lake of Death. Within the lake is the 40 km crater Burg, named for Johann Tobias Burg (1766-1834) an Austrian astronomer. On the evening of February 12, 1997, Robert Hays, Jr. of Worth, Illinois sketched the area and submitted this report:

"I had a chance to observe this crater on February 12/13. I noticed that it was close to the terminator while watching for the occultation of Xi Arietis. Clouds came shortly after this event, but they cleared away later. The sky was clear between cloudy spells that evening but the seeing wasn't too steady. I tried to sketch that area as I saw it. The crater was obviously closer to the terminator than in the sketch shown in the January 1997 Lunar Observer. Most of the interior was in deep shadow. The outer concave shadow got my attention right away. I saw a few little hills south of the crater, and a longer, low swelling to the north not far from a small bright spot. To the west (IAU) were a variety of shadows. The two farthest west appeared to be low domes; the rest may be just wrinkles. A very fine rille was also noted when the view was steadiest. I thought there was something stuck in the focal plane of my eyepiece, but it was a lunar feature. This rille appeared to cut across one of the previously mentioned domes. As stated in the January 1997 TLO, the western wall of Lacus Mortis is indeed very abrupt."

Burg can be found on Map #14 of Rukl's Atlas of the Moon

LUNAR CALENDAR - FEBRUARY 1999 (UT)

2	01:00	Moon 0.3 Degrees North of Regulus
7	06:00	Moon 2.9 Degrees North of Mars
8	09:00	Moon at Apogee (404,375 km)
8	11:59	Last Quarter
14	11:00	Moon 1.5 Degrees North of Neptune
16	06:40	New Moon (Start of Lunation 942) Annular solar eclipse
18	07:00	Moon 1.8 Degrees South of Venus
18	17:00	Moon 2.2 Degrees South of Jupiter
20	15:00	Moon at Perigee (368,644 km)
22	02:44	First Quarter

OBSERVATIONS RECEIVED DURING THE MONTH

DOUG HANSEN - SAN DIEGO, CALIFORNIA

..... CCD image of Copernicus, Stadius, and Eratosthenes.

BILL O'CONNELL - WHITMAN, MASSACHUSETTS

..... CCD images of Eratosthenes, Seleucus, Anaxagoras, Madler, Bessel, Copernicus, Proclus (2), and Kepler.

From the Editor:

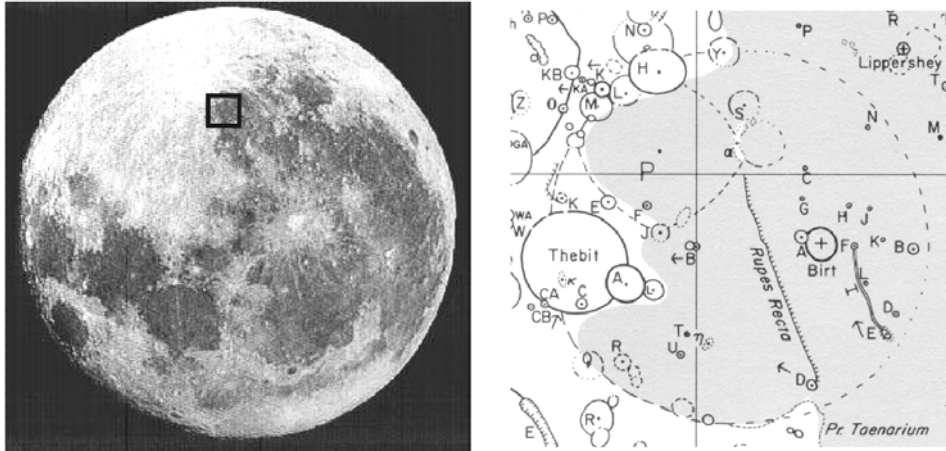
The Joint ALPO/BAA Lunar Rays Project is looking for observers to help in the study of these fascinating features. Anyone interested in participating should contact the Editor at the address on Page One. Sketches, photographs, and electronic images by observers of all skill and experience levels are encouraged and welcomed.

The second installment of "Observing the Moon" will appear in the April edition of the ALPO Journal and will be on the subject of rays. I thank those who sent sketches and images of rays to help with its preparation. The subject of the third installment will be wrinkle ridges. Anyone having suitable observations should send them to the Editor at the address on Page One.

Also, a reminder that in addition to being available at the Association of Lunar and Planetary Observers (ALPO) Website at www.lpl.arizona.edu/~rhill/alpo/lunar.html, hard copies of The Lunar Observer can be obtained by sending the Editor a set of self-addressed-stamped-envelopes or by subscribing at the rate of \$5.00 for 12 issues.

Clear and steady skies WMD

EXPLORING THE MOON



Map used with permission of Lunar & Planetary Laboratory, University of Arizona

Our exploration this month takes us to one of the most popular places on the Moon, the area containing Birt and the Straight Wall. These features are located on the eastern edge of Mare Nubium and are actually contained within the borders of a large ghost crater. This ghost crater itself is quite interesting but must be viewed under a very low sun. Patrick Moore describes it as being barely traceable but experienced observers should not find it to be a serious challenge.

The Straight Wall, Rupes Recta, is a fault scarp that runs in an approximate north-south direction for about 110 km. Between 240 and 300 meters in height, it is higher on the east than the west. This causes it to cast a very distinct shadow under morning lighting (before Full Moon) and then appear as a bright line in the lunar evening (after Full Moon). The shadow cast by the Wall is an easy target for small telescopes and beginning observers. The bright line, however, presents more of a challenge. Once believed to be a nearly vertical wall, we now know that Rupes Recta has a rather moderate slope of 40 degrees. Still, its appearance through the telescope is one of a sheer cliff.

Birt is a 17 km crater located to the west of the Straight Wall. Beginning observers should look for the small (7 km) crater Birt A on the southeastern wall of Birt. Another interesting feature of Birt is a pair of dusky bands on its inner east slope. Relatively easy in a large scope, these bands are still a worthy target for new observers. Just west of Birt is a very nice rille that runs for about 50 km along a line that is nearly parallel to Rupes Recta. This rille, Rima Birt, has small craterlets on either end. The southern-most craterlet (Birt F) is about 3 km in diameter. The northern-most craterlet (Birt E) is slightly larger at 3 x 5 km and sits atop a dome. A fine view under good seeing and one of the reasons the area is so popular with lunar observers.

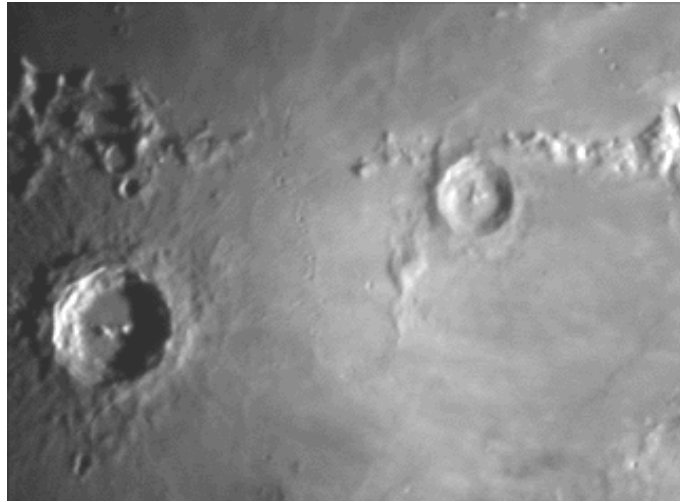
As always, your sketches, images, and notes from this exploration are welcomed and encouraged.

Question of the Month:

Q: What are the greatest and shortest distance that the Moon can be from the Earth?

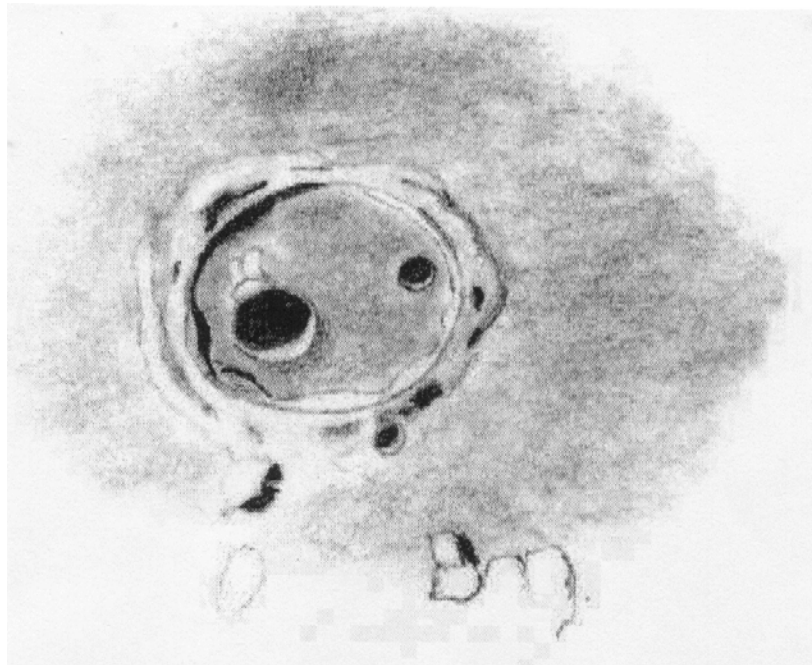
A: Over time, the shape of the Moon's orbit changes slightly causing these distances to vary from year to year. During the 20th century the Moon's closest approach was 356,375 km (221,451 miles) on January 4, 1912 and its greatest distance was 406,712 km (252,731 miles) on March 2, 1984.

TOPOGRAPHICAL STUDIES



COPERNICUS & ERATOSTHENES

Video frame by Doug Hansen - San Diego, California
December 28, 1998 - 15cm Maksutov-Cassegrain - North at top



CASSINI - Sketch by David Lehman - Fresno, California
June 3, 1998 - 15cm Newtonian - 220X - South at top