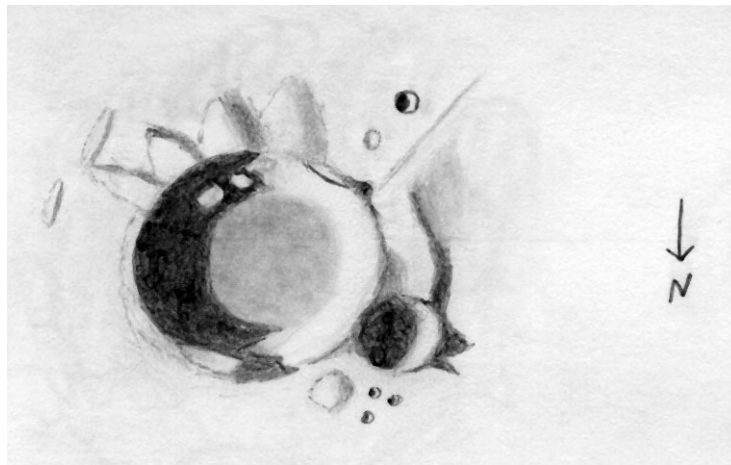


THE LUNAR OBSERVER

AN INDEPENDENT NEWSLETTER FOR STUDENTS OF THE MOON . . . MARCH 2001
EDITED BY: Bill Dembowski - ALPO Coordinator, Lunar Topographical Studies - President, American Lunar Society
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FEATURE OF THE MONTH



GEBER - (19.4°S - 13.9°E)

Sketch and Text by Robert H. Hays, Jr. - Worth, Illinois, USA
September 6, 2000 - 6 inch Newtonian - 170X - Seeing 5-7/10

I observed this crater on the evening of September 5/6, 2000 while timing four occultations. This crater is well to the west of Mare Nectaris amid a jumble of other craters. The rim of Geber is crisper than that of most craters in the area, so it stood out fairly well. The only major irregularity that I noticed on its rim was a hump of sorts on its north edge. The interior sunlit rim of Geber didn't show much evidence of terracing, but I noted two large bright peaks protruding out of its interior shadow. Geber's floor appeared to be smooth and flat. The sizable crater to Geber's northwest edge is Geber B. Three small crater pits and a round, domelike feature were seen north of this crater. Geber E is the small, crisp crater southwest of Geber, and a smaller, shallow crater was noted between them. The Lunar Quadrant Map shows an unlabelled spot between Geber and Geber E, but the shadowing that I saw indicated a depression. The map also shows Geber F nearby, but I saw only a patch of shadow there along Geber's rim. There were four low, large elevations along the south-southeast rim of Geber. They were arranged somewhat like flower petals. The west rim of Geber B must have two high peaks judging from the shadows it cast. There was an assortment of other shadows that I sketched as well as I could.

Editor: Geber is named for Gahir ben Aflah, a 12th century Spanish-Arabian astronomer. It can be found on Map 56 of Rukl's Atlas of the Moon.

A Lunar Atlas on Your PC

Jack Kramer - Libertyville, Illinois, USA

Whatever your observing preference, it's a good bet that every now and then you take a look at the moon. If your lunar observing is strictly of the casual sort, then a simple moon map could be all you need. But if you'd like to really search out obscure objects on the lunar surface, then a detailed atlas is a must. If you have a computer running the Windows operating system, then you're in luck. Detailed image files from NASA's Clementine spacecraft are at your disposal.

To begin with, you need two things. The first step is to download the freeware program Clementine Skimmer from the software archive of the Royal Astronomical Society of Canada (Edmonton) web site at: <http://planet10.v-wave.com/rasc/mainrasc.html> This program was designed to access a NASA CD-ROM of images from the Clementine mission. (By downloading Clementine Skimmer, you can demo the software from a sample image without the CD-ROM). If you like what you see, the second step is to go to the NASA web site at: <http://nssdc.gsfc.nasa.gov> This is the address for the National Space Science Data Center at the Goddard Spaceflight Center, which makes available a wealth of information about the space-related sciences. From here you can order the Clementine LDIM CD-ROM Vol. 15 at a cost of \$10.00, plus shipping. (There are many other volumes at much higher resolution, but for this program to cover the entire lunar surface, you only need Volume 15.) I received my copy of the CD-ROM in a little over two weeks.

The images are composited so that a full moon view is presented. The Skimmer software allows you to navigate quickly around the moon by pointing and clicking, then zoom in for a detailed image at a resolution of 0.5 km/pixel (1/4 arcsecond through your telescope). The program includes a database of more than 7,000 features. Using the Find Feature option, type in a name and the feature will pop up in a list with some basic information about it. Double-click on the feature name in the list and an image will appear with the cursor on top of the requested feature. Or start with a large-scale view of the lunar surface, then right-click on a feature to get the "identify feature" option. You can also modify the database to add your own comments. And you can save the images in a number of formats.

As the cursor moves, it provides a continuous readout of lunar Latitude and Longitude, as well as the current page in the Rukl Atlas of the Moon. Other options include flipping and inverting, and point-to-point distance measurements. There are only a couple of criticisms. On the enlarged views there is some distortion where images taken at slightly different angles apparently meet. And on a few of the features, there are insufficiently distinct shadows. As a result, they seem overexposed and details are hard to identify. In some cases the Maria seem too dark and lunar rays far too prominent. However, the images can be made brighter or darker by the user, and the contrast may be adjusted. This is a very useful tool and I've found myself using this, rather than a printed atlas, to identify minute features on the moon.

New LTP Website

For those observers who are interested in Lunar Transient Phenomena, there is a new website on the subject at: <http://www.ltpresearch.org/> The site is the work of David O. Darling who heads the LTP Research Programs for both the Association of Lunar and Planetary Astronomers (ALPO) and the American Lunar Society (ALS). Although still under construction, much of an LTP Observers Handbook is already up. I strongly urge that you visit the site often as it promises to be a major source of LTP information.

Received During the Month

MICHAEL AMATO - WEST HAVEN, CONNECTICUT, USA
Sketches of Plinius, Macrobius
Ray Maps of Proclus (4), Messier (4) Menelaus (5)

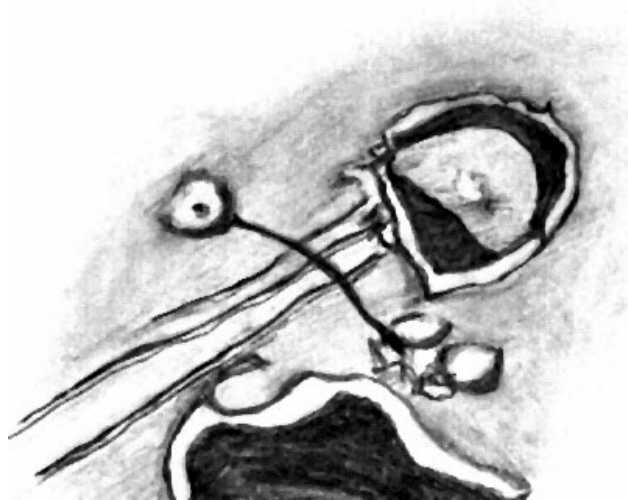
DANIEL DEL VALLE - AGUADILLA, PUERTO RICO
Sketch of Torricelli B

ROBERT WLODARCZYK - CZESTOCHOWA, POLAND
Sketches of Madler (2), Fracastorius, Capella & Isidorus

Lunar Calendar - March 2001 (UT)

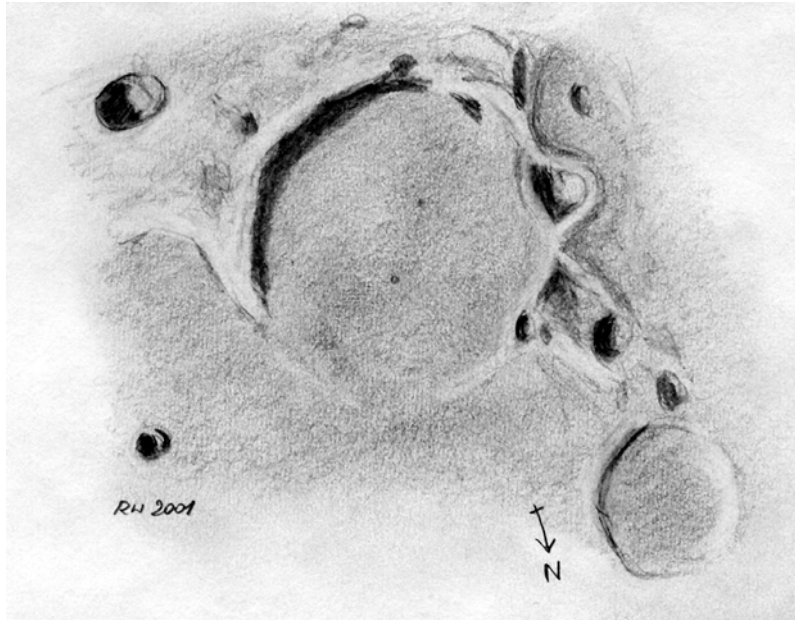
2 10:00 Moon 2.7 Degrees SSE of Jupiter
3 02:03 First Quarter
8 09:00 Moon at Perigee (223,554 miles - 359,765 km)
9 17:23 Full Moon
16 20:47 Last Quarter
18 07:00 Moon 0.53 Degrees NNW of asteroid Ceres
20 09:00 Moon 2.3 Degrees S of Neptune
20 11:00 Moon at Apogee (251,950 miles - 405,463 km)
25 01:23 New Moon (Start of Lunation 968)
29 04:00 Moon 1.6 Degrees S of Saturn

Topographical Studies



RIMA GOCLENIUS

Sketch by Raffaello Lena - Rome, Italy
March 9, 2000 - 100mm Refractor - 250X



FRACASTORIUS

Sketch by Robert Włodarczyk - Częstochowa, Poland
January 29, 2001 - 150mm Newtonian - 150X



JULIUS CAESAR & RIMA ARIADAEUS

Photograph by Joseph H. C. Liu - Salinas, California, USA
January 5, 1999 - 20.6cm Refractor - f/88 - ISO 640 - 1/3 second