

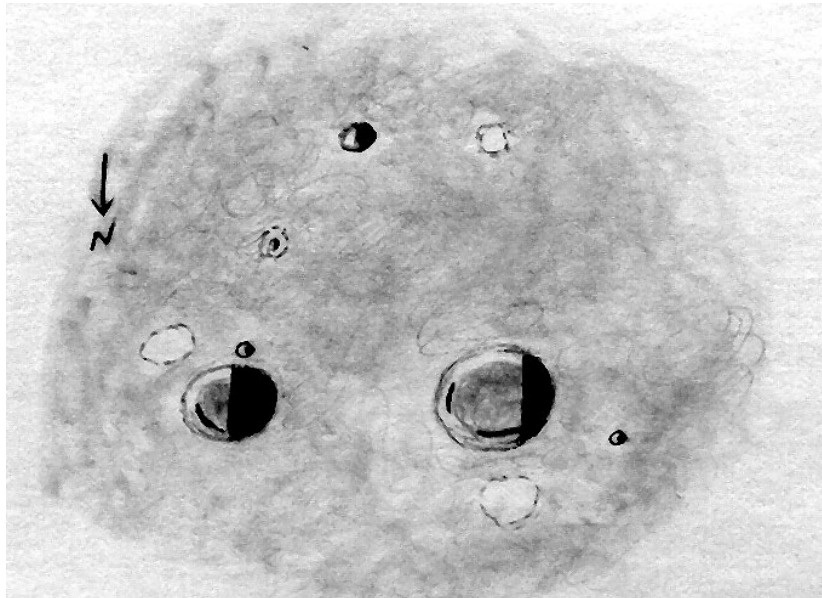


THE LUNAR OBSERVER

AN INDEPENDENT NEWSLETTER FOR STUDENTS OF THE MOON – MARCH 2004

EDITED BY: William M. Dembowski, FRAS - Elton Moonshine Observatory
219 Old Bedford Pike (Elton) - Windber, PA 15963 - Dembowski@Adelphia.net

FEATURE OF THE MONTH



LE VERRIER & HELICON

Sketch and Text by Robert H. Hays, Jr. – Worth, Illinois, USA

August 20, 2003 – 10:18 to 10:32 UT

15cm Newtonian – 170x – Seeing 7-8/10

I sketched these craters on the morning of August 20, 2003 after timing a near-graze of an 8th magnitude star. These are two somewhat isolated craters in north-central Mare Imbrium. Le Verrier is the eastern one and has a small pit just to its north, Le Verrier T. It had a narrow, curved shadow in addition to its substantial straight-edged internal shadow. Helicon is westward and somewhat larger. It also had narrow shadows that may indicate terracing, and a smaller but still straight-edged internal shadow. The small pit Helicon E is to the west. The larger crater Helicon B forms a nearly equilateral triangle with the two main craters. I saw a tiny, bright patch between Helicon B and Le Verrier with perhaps a minute shadow. The Lunar Quadrant Map shows Le Verrier S in that location. A small, fairly crisp bright patch was noted west of Helicon B and two more diffuse ones were southeast of Le Verrier and north of Helicon. I saw no shadows in any of these.

OBSERVATIONS RECEIVED

MICHAEL AMATO - WEST HAVEN, CONNECTICUT, USA
Ray maps of Aristarchus, Kepler, Proclus, Menelaus, Messier

STEVE BOINT – SIOUX FALLS, SOUTH DAKOTA, USA
Digital image of Plato and Vertical Study of eastern rim

ED CRANDALL - WINSTON-SALEM, NORTH CAROLINA, USA
Digital images of Schickard, Schiller, Maginus, Gassendi, Copernicus

DANIEL DEL VALLE - AGUADILLA, PUERTO RICO
Digital images of Tycho (2), Clavius (2), Moretus, Klaproth, Capuanus, Wargentini, Bailly, Copernicus

COLIN EBDON - COLCHESTER, ESSEX, ENGLAND
Sketch of Montes Rhiphaeus

WILLIAM ELSBURY – MASON CITY, IOWA, USA
Digital image of Messier

ROBERT H. HAYS, JR. – WORTH, ILLINOIS, USA
Sketches of Vitello, Billy, Sabine & Ritter & Schmidt & Dionysius, Autolycus
73 Timings of stars occulted by the Moon

RAFFAELLO LENA – ROME, ITALY
Sketches of Plato (2)

JOSEPH H.C. LIU – SALINAS, CALIFORNIA – USA
Digital image of Janssen

K. C. PAU – HONG KONG, CHINA
Digital images of Rimae Plinius, Rimae Hypatia, Reinhold, Lubiniezky, Capuanus, Agrippa, Eudoxus, Bullialdus, Schiller, Gambart, Aristarchus, Kepler, Rupes Recta, Triesnecker

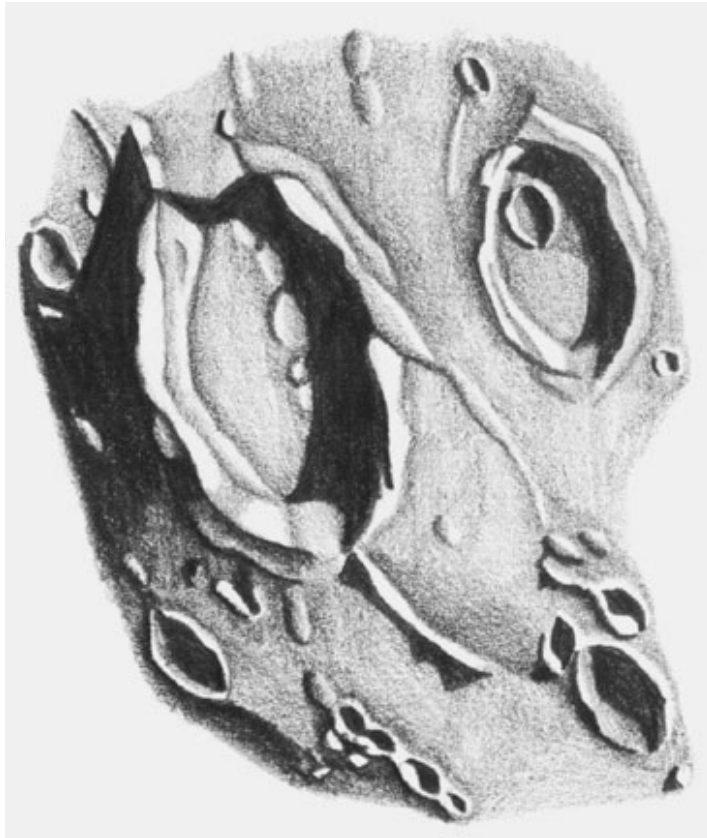
JOHN SUSSENBACH – THE NETHERLANDS
Digital images of Moretus, Piccolomini, Plato, Posidonius, Rupes Recta, Schiller, Stadius, Theophilus, Tycho, 6-Day Moon

ALEXANDER VANDENBOHEDE – BELGIUM
Digital images of Menelaus, Cassini, Copernicus
Sketch of Konig

ROBERT WLODARCZYK - CZESTOCHOWA, POLAND
Sketches of Thebit, Tycho, Schickard

CRAIG ZERBE – BEND, OREGAN, USA
Digital images of Plato (2)

TARGET: HERCULES



ATLAS & HERCULES

Sketch by Peter Grego – Rednal, Birmingham, England
August 29, 1983 – 60mm Vixen Refractor

Last month our target was Atlas, one half of the famous pair of Atlas & Hercules. This month's choice was obvious, Hercules. Hercules is the smaller of the two formations with a diameter of 43 miles (69 km). It may also be the older, as suggested by its broken walls and larger floor craters. Because of foreshortening, the terracing of its walls may be a little difficult to observe but a major land-slip on the western wall should be fairly easy.

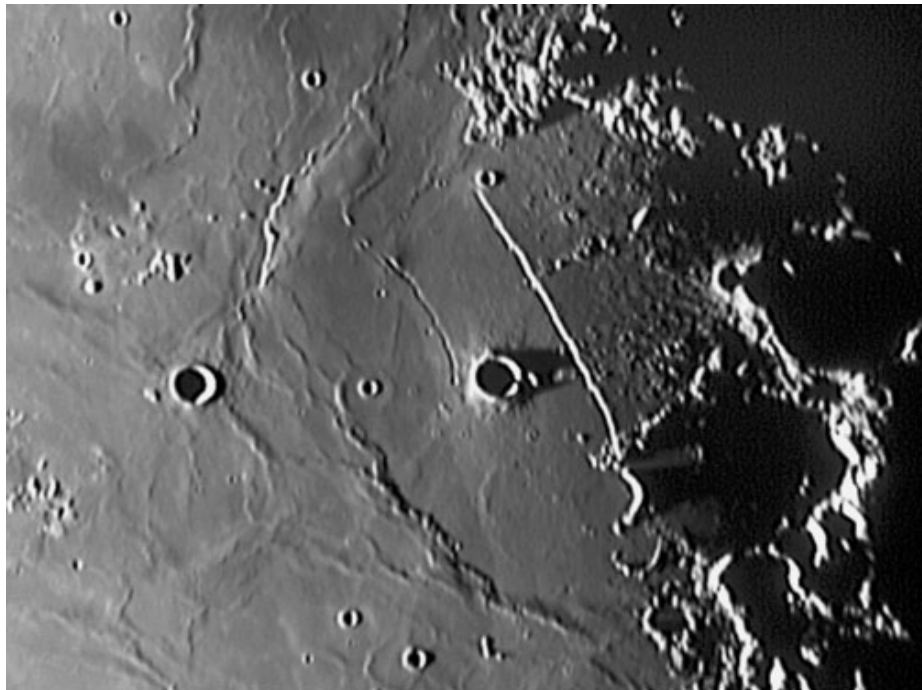
The walls of Hercules rise about 11,000 feet (3,300 meters) above its floor which is flooded and relatively flat. But, under good lighting, look for some irregularities near the center of the crater floor. Some theorize that the unevenness is evidence of a buried central peak (or peaks). The largest feature on the floor of Hercules is an easy target. It is the crater Hercules G with a 10 mile (16 km) diameter and sharp rim. More challenging are Hercules E, a 6 mile (10 km) crater on the south rim and an undesignated craterlet about half that size just north of Hercules G. Although neither are shown on the above sketch, one must still admire the detail recorded by Peter Grego using only a 60mm refractor.

Hercules can be found on Map 14 of Rukl's Atlas of the Moon, unfortunately separated from its "twin", Atlas, which resides on Map 15.

LUNAR CALENDAR MARCH 2004 (UT)

01 . . . 10:00 . . . Moon 4.6 Degrees N of Saturn
06 . . . 23:16 . . . Full Moon
12 . . . 04:00 . . . Moon at Perigee (229,601 miles – 369,407 km)
13 . . . 21:02 . . . Last Quarter
17 . . . 09:00 . . . Moon 5 Degrees SSE of Neptune
20 . . . 22:43 . . . New Moon (Start of Lunation 1005)
25 . . . 24:00 . . . Moon 0.79 Degrees NNW of Mars
26 . . . 12:00 . . . Moon 7.9 Degrees NNW of Aldebaran
27 . . . 07:00 . . . Moon at Apogee (251,358 miles – 404,510 km)
28 . . . 23:48 . . . First Quarter
30 . . . 05:00 . . . Moon 1.7 Degrees SSW of Pollux
31 . . . 08:00 . . . Moon 3.6 Degrees NNE of the Beehive Cluster

TOPOGRAPHICAL STUDIES



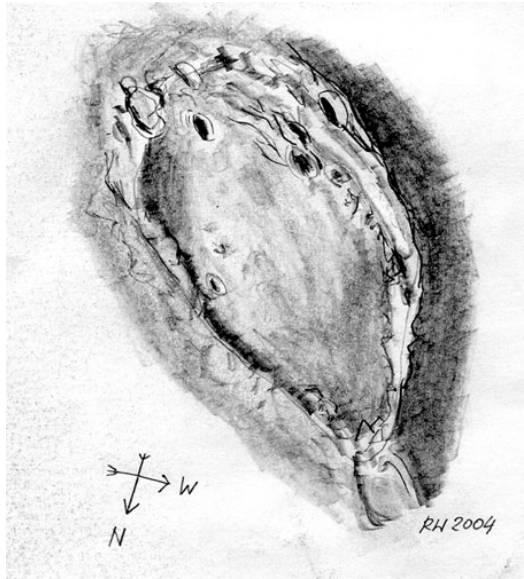
RUPES RECTA

Digital image by K. C. Pau – Hong Kong, China

February 13, 2004 – 22:29 UT

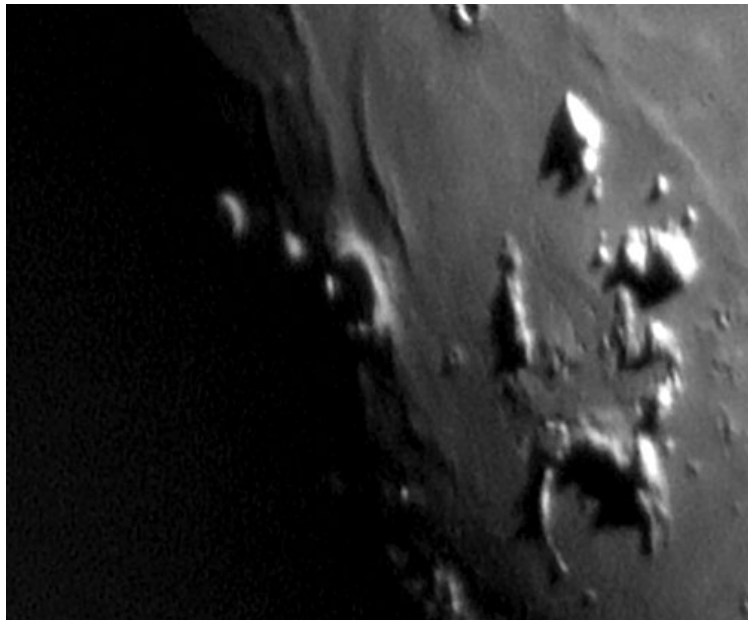
10 inch Newtonian – Philips Toucam Pro

TOPOGRAPHICAL STUDIES



SCHICKARD

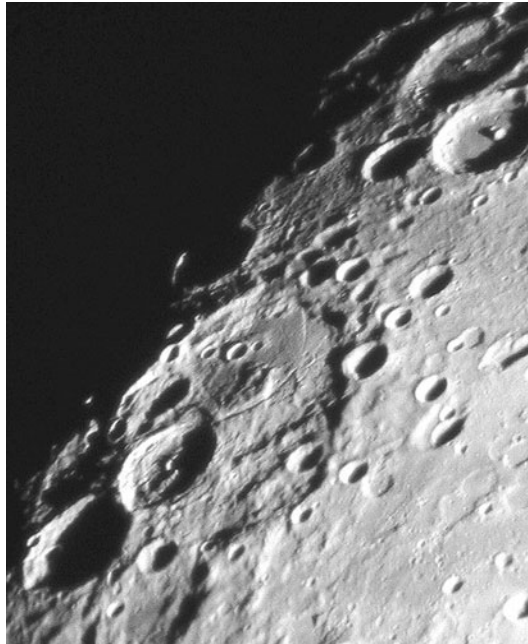
Sketch by Robert Włodarczyk – Częstochowa, Poland
January 4, 2004 – 20:30 UT
120mm Newtonian – 112x



PRINZ & THE HARBINGER MOUNTAINS

Digital image by Rafael Benavides
Posadas, Cordoba, Spain
9-1/4 inch SCT – 2x Barlow – Philips Toucam Pro

TOPOGRAPHICAL STUDIES



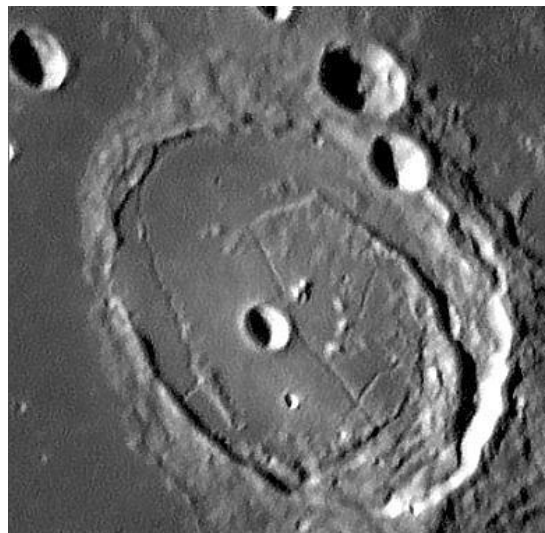
JANSSEN

Digital image by Joseph H.C. Liu – Salinas, California, USA

December 12, 2003 – 08:06:09 UT

20.6 cm f/7.7 Starfire EDF Refractor

Nidon Coolpix 990 – 1/30 sec. – 100 ISO



POSIDONIUS

Digital image by John Sussenbach – The Netherlands

September 15, 2003

11 inch SCT – 3x Barlow – Philips Toucam Pro