

# THE LUNAR OBSERVER

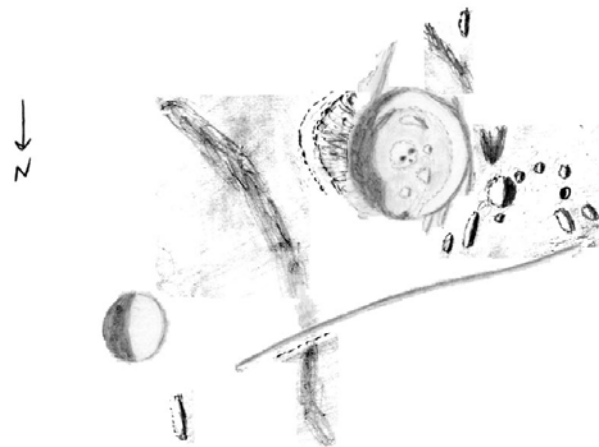
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A NEWSLETTER FOR STUDENTS OF THE MOON . . . . JULY 1999

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## FEATURE OF THE MONTH



Plinius - ( $15.4^{\circ}\text{N}$  -  $23.7^{\circ}\text{E}$ )

Sketch by Robert H. Hays, Jr. - Worth, Illinois  
15cm (6 inch) Newtonian - 170X - March 24, 1999 - Seeing 7/10

Near the border of Mare Serenitatis and Mare Tranquillitatis is the prominent crater Plinius and its smaller companion Dawes. Plinius is 43 km (27 miles) in diameter while Dawes is 18 km (11 miles) across. Robert H. Hays, Jr. sketched the area and submitted the following report.

"I sketched this area on the evening of March 23/24, 1999 while timing seven occultations. Plinius had quite an interesting interior. There was a large, round central hill and three dots of shadow, one much smaller than the other two. I saw four other elevations on the floor of Plinius. I saw irregularities in the walls which the sketch depicts better than words could. A low swelling was evident along the east wall of Plinius. It gave me the impression that something had flowed there. I saw a collection of low hills and ridges to the northwest along with one small crater. To the east of Plinius is the crater Dawes. This crater was rather bland compared to Plinius. A conspicuous rille started west of Dawes and continued to the northwest of Plinius. A vague but substantial wrinkle shadow passed between Dawes and Plinius."

Editor: Plinius and Dawes can be found on Map #24 of Rukl's Atlas of the Moon. Robert's sketch was made on the night of the First Quarter Moon.

# RECEIVED DURING THE MONTH

FRANCESCO BADALOTTI - CREMONA, ITALY

Video stills of Messier, Menelaus (2)

ERIC DOUGLASS - SANFORD, NORTH CAROLINA

Video Stills of Copernicus (2)

COLIN EBDON - LONDON, ENGLAND

Sketches of Proclus Rays, Rays of Stevinus A

DOUG HANSEN - SAN DIEGO, CALIFORNIA

Video stills of Proclus (2), Messier (2), Menelaus (2), Birt (2)

CHARLES SHIRK - DAYTON, OHIO

Video stills of South Polar Region (2)

## OBSERVING ALERT

The highly successful Lunar Prospector Mission is coming to a close and NASA scientists have decided to end the mission in a most interesting manner. Plans are to crash the spacecraft into a permanently shadowed crater near the south pole of the Moon (Mawson) that is suspected of containing water ice. It is hoped that evidence of the water ice will be detectable in the impact debris cloud. It is strongly urged that all lunar enthusiasts monitor the south polar region for visible signs of the impact and report their observations, positive or negative, to the editor (see addresses on Page One). The impact is currently scheduled for 09:52 UT on July 31, 1999.



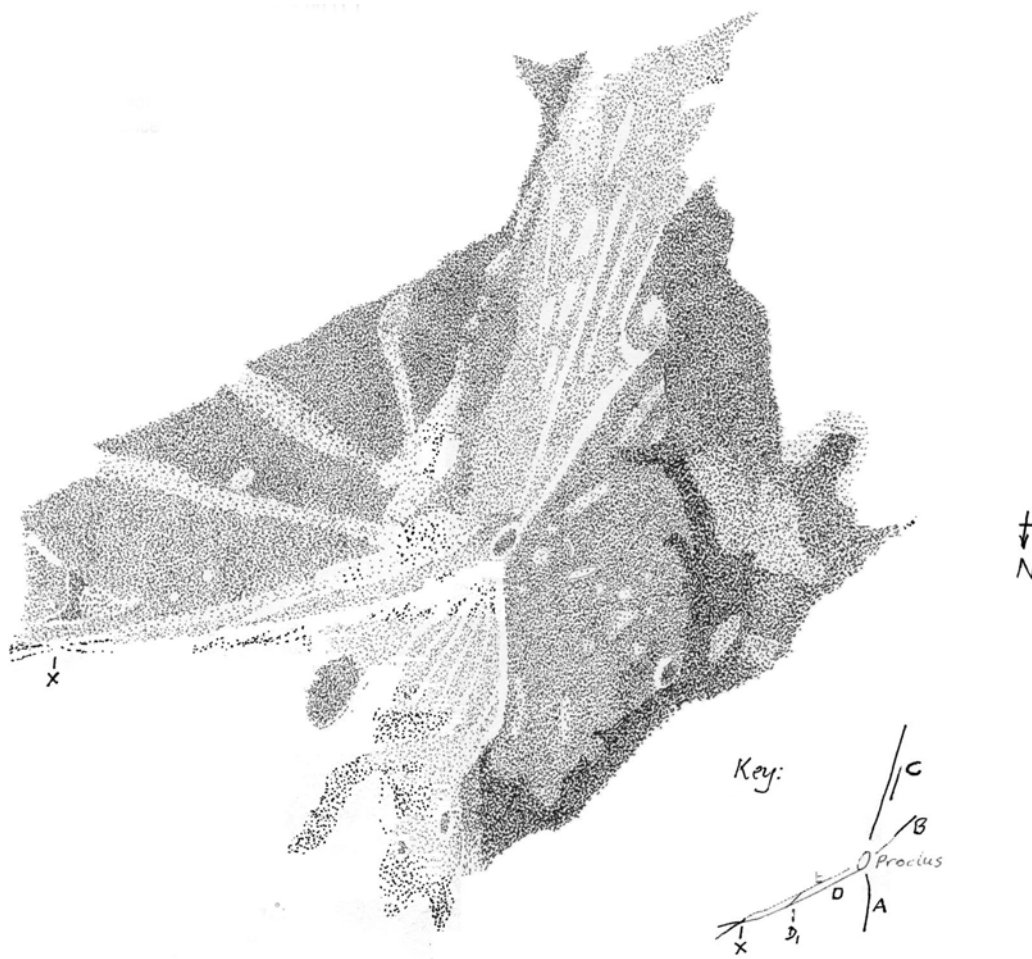
### SOUTH POLAR REGION

Video Still by Charles Shirk - Dayton, Ohio  
August 15, 1994 - 25 cm (10 inch) Schmidt-Cassegrain

# INTERNATIONAL BRIGHT LUNAR RAYS PROJECT

Participation in the International Bright Lunar Rays Project continues to be strong with sketches, photographs, and electronic images being submitted by all participating organizations (Association of Lunar and Planetary Observers, British Astronomical Association, American Lunar Society and Italian Union of Amateur Astronomers.) and independent observers as well. Initial emphasis has been on the ray system of the crater Proclus and continued submissions are welcomed. The rays associated with the craters Menelaus, Messier A, and Stevinus A are also of particular interest at this time and observations of these systems are strongly encouraged. As always, observations of any ray system will be of benefit to the project.

The majority of observations received consist of electronic images and they are very useful. The superb sketch and written notes below, however, clearly illustrate the continued value of traditional low tech, low cost observations.



## RAY SYSTEM OF PROCLUS

Sketch and notes by Colin Ebdon - London, England  
March 27, 1999 - 10 inch Newtonian - 183X

NOTES (See Key): The brightest ray (A) seemed to either be part of, or follow the line of, a shallow ridge at the edge of Palus Somnii. Between ridges (A) and (D) 4-5 very fine filaments could be seen (finer than shown in the drawing) extending to the northeast.

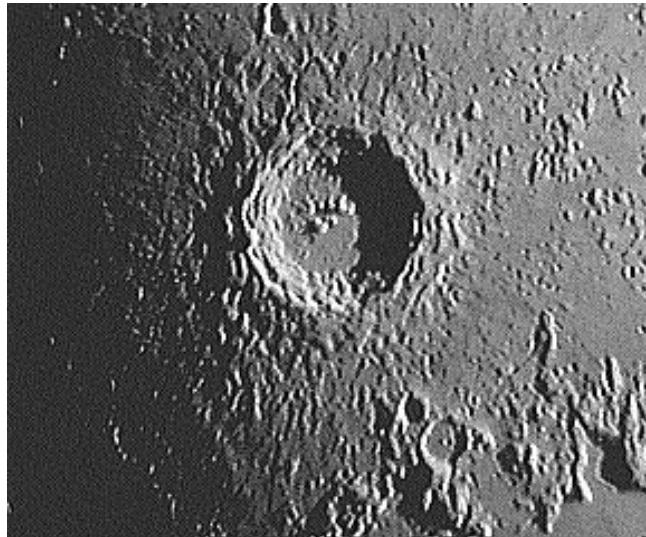
Rays (B) and group (C) - (C) comprising at least 3-4 rays - are not seen at all under lower lighting conditions, and seem to intermingle with various topographical features not yet observed in detail. The longest of rays (C) could be followed all the way to the shoreline of Mare Fecunditatis, but not onto the Mare itself. Ray (D) had a "feathered" appearance along the length of its southern edge and appeared to cross with ray (E) at the point marked X, which, although not depicted here is a complex area on the northern shoreline of the Mare Crisium. There seems to be a bright filament (D1) joining (D) and (E).

The rays crossing the Mare Crisium are more diffuse and complex than depicted here, but nevertheless are easier to see under low lighting conditions than the brighter rays (A) and (B), no doubt because of the contrast with the darker albedo and smoothness of the Mare floor.

## LUNAR CALENDAR - JULY 1999 (UT)

- 1 . . . . 02:00 . . . . Moon 0.6 Degrees NNW of Neptune
- 2 . . . . 02:00 . . . . Moon 0.4 Degrees NW of Uranus
- 6 . . . . 11:57 . . . . Last Quarter
- 11 . . . . 06:00 . . . . Moon at Perigee (361,767 km / 224,798 miles)
- 13 . . . . 02:24 . . . . New Moon (Start of Lunation 947)
- 14 . . . . 10:00 . . . . Moon 2.9 Degrees N of Mercury
- 20 . . . . 08:59 . . . . First Quarter
- 23 . . . . 06:00 . . . . Moon at Apogee (404,914 km / 251,609 miles)
- 28 . . . . 11:25 . . . . Full Moon
- 28 . . . . 11:34 . . . . Mid-point of partial eclipse of the Moon
- 29 . . . . 02:00 . . . . Moon 1.7 Degrees S of asteroid Psyche
- 29 . . . . 06:00 . . . . Moon 0.5 Degrees NW of Uranus

## TOPOGRAPHICAL STUDIES



### COPERNICUS

Video Still by Eric Douglass - Sanford, North Carolina  
October 12, 1998 - 32cm (12.5 inch) Newtonian