

# THE LUNAR OBSERVER

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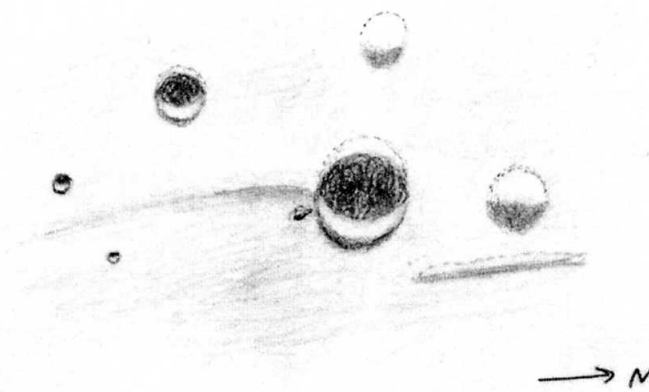
A MONTHLY NEWSLETTER FOR STUDENTS OF THE MOON .....NOVEMBER 1998

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## FEATURE OF THE MONTH

### Arago and Vicinity (6°N - 21°E)



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

15cm Reflector - 170X - Seeing 6/10

Near the western shore of Mare Tranquillitatis is the 26 km crater Arago. Arago has a small central peak which is really just a high point in a central ridge. Little else distinguishes this smallish crater, but its surroundings are quite another matter. On the evening of January 17, 1998 Robert H. Hays, Jr. sketched this region and submitted the following report:

"The sky cleared unexpectedly on the night of January 17-18, allowing some good observing. After timing the reappearance of 7th magnitude ZC 1746, I noticed two conspicuous domes near the crater Arago in western Mare Tranquillitatis. Arago itself was a rather ordinary, shadow-filled crater. The two domes nearby made the area interesting. One to the north of Arago was round and slightly smaller than Arago itself. The other dome was west of Arago and appeared slightly elongated in an east-west direction. This dome was slightly smaller than the north dome. Their slopes had to be quite shallow since they had no true dark shadows despite their proximity to the terminator. They appear on the Lunar Quadrant Map as Arago Alpha and Beta respectively. They appear to be smooth in texture. The crater Manners is drawn southeast of Arago, and two small craters are shown to its east. Two wrinkles or low ridges were noted extending south from Arago, and east of Arago Alpha. A detached peak

was seen near, but not connected to, Arago's south edge. There was some slow rippling across the view at times (not fast scintillating) that kept the seeing from being rated better than 6 on a 0-10 scale. This turbulence may have helped break up a cloud-trapping inversion; if so, it was worth it to get rid of the clouds for a while. This slow rippling is not as damaging to visual work as fast seeing would have been, otherwise, I wouldn't have tried sketching. It was evident only with high power, and not with lower power used for occultation observing. The sky was clear enough to see the dark limb, though the moon was two days before last quarter."

Arago and vicinity can be found on Map #35 of Rukl's Atlas of the Moon and should be in good position for viewing about five days after New Moon or five days after Full Moon.

## LUNAR CALENDAR - NOVEMBER 1998 (UT)

3.....	10:00.....	Moon 1.6 Degrees South of Saturn
4.....	01:00.....	Moon at Perigee (356,605 km)
4.....	05:19.....	Full Moon
6.....	01:00.....	Moon 0.6 Degrees North of Aldebaran
11.....	00:29.....	Last Quarter
17.....	07:00.....	Moon at Apogee (406,482 km)
19.....	04:27.....	New Moon (Start of Lunation 939)
24.....	09:00.....	Moon 1.9 Degrees North of Neptune
25.....	03:00.....	Moon 2.1 Degrees North of Uranus
27.....	00:23.....	First Quarter
28.....	01:00.....	Moon 0.6 Degrees South of Jupiter

### From the Editor:

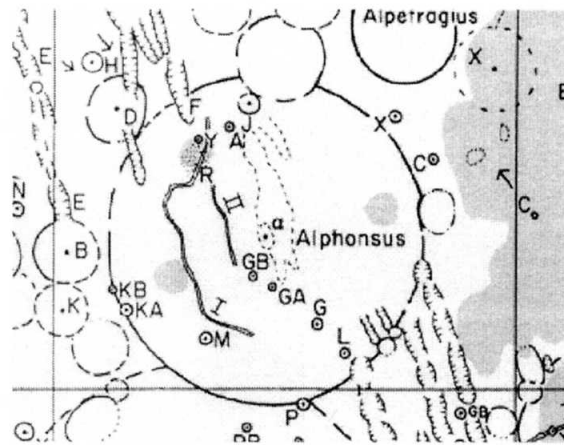
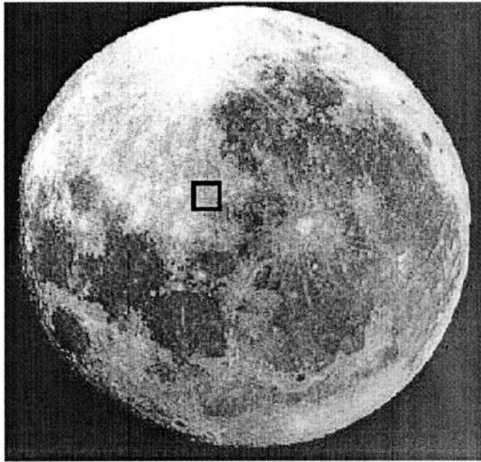
The A.L.P.O. is currently conducting a survey of its members in order to find ways to serve them better. All A.L.P.O. members are urged to complete their surveys honestly and in a timely manner. The Board and Staff REALLY DO want to hear what you have to say.

The Lunar Observer also wants to hear what you have to say and see what you have seen. Your observations, sketches, and images are what makes this newsletter work. Although we encourage membership in the A.L.P.O., you do not have to be a member in order to contribute to The Lunar Observer. We look forward to sharing your observations with our readers and archiving them for future reference.

Hard copies of The Lunar Observer can be obtained by sending a set of self-addressed-stamped-envelopes to the Editor at the address in the banner on page one, or by subscribing at the rate of \$5.00 for 12 issues.

Clear and steady skies ..... WMD

# EXPLORING THE MOON



Map with permission of Lunar and Planetary Laboratories, University of Arizona

Near the center of the lunar disk is the 120 km crater Alphonsus (13.4 S – 2.8 W). The middle of a three crater chain with Ptolemaeus and Arzachel, Alphonsus has very broad walls that are broken by several valleys in the northeast. The central mountain is rather small for a crater this size but is still easily visible in small telescopes. It is the central peak that gained notoriety in 1958 when Nikolai Kozyrev of the Crimean Observatory not only witnessed a red event there, but obtained several spectrograms which indicated an outgassing in the area. Although there is still some question as to the validity of that interpretation of the spectrograms, it still makes for interesting viewing and warrants monitoring for future LTP events.

More challenging than the central peak are the two rilles to the east of the central peak that run in an approximate north-south direction. Perhaps the most interesting features on the floor of Alphonsus, however, are the dark patches. Three patches lie near the east wall and one lies near the west wall. There is also a small dark patch to the east of the central mountain. These areas are probably of volcanic origin and all have central craterlets that are a real challenge for the advanced observer. The patches themselves are more easily seen as the sun rises higher in the lunar sky. In fact, by Full Moon, they may be the only things that enable you to find Alphonsus at all. The craterlets, of course, must be sought when closer to the terminator.

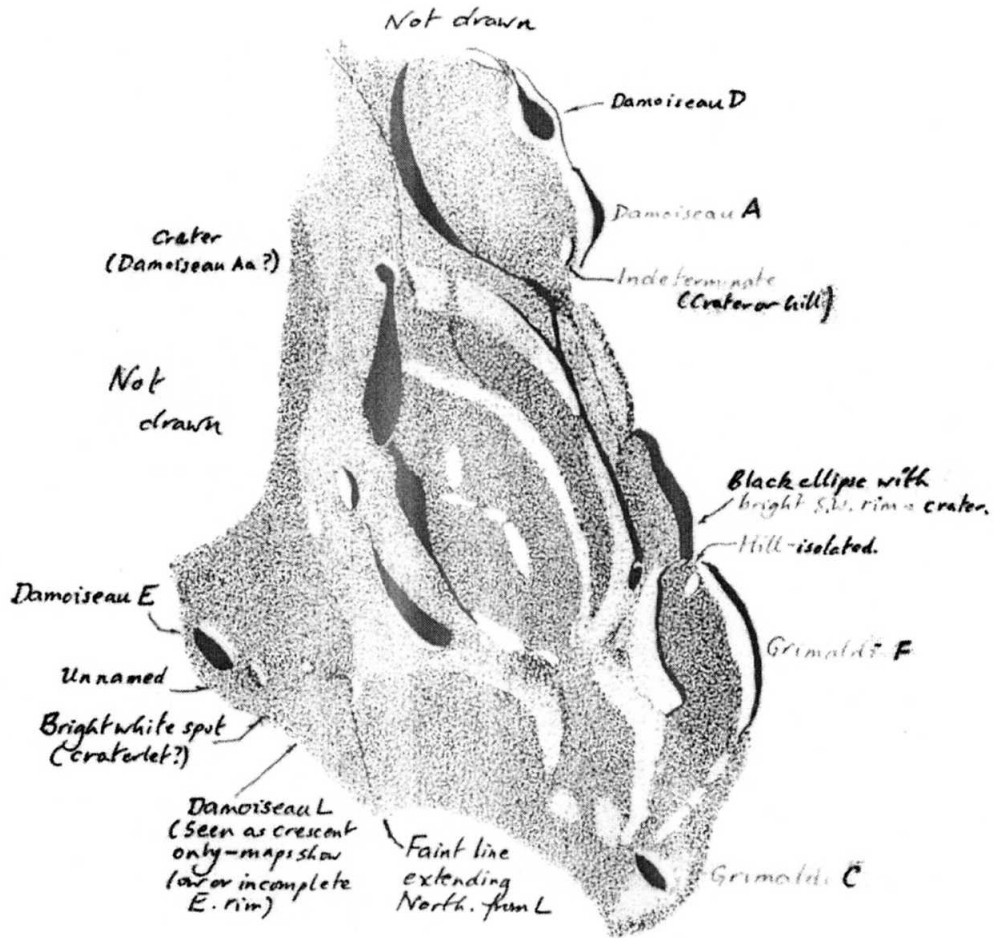
As always, your sketches, images and notes from this exploration are welcomed and encouraged.

## OBSERVATIONS RECEIVED DURING THE MONTH

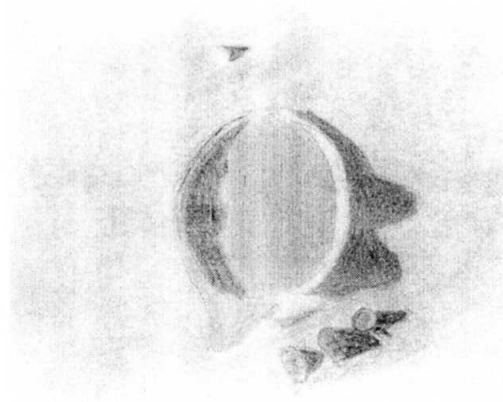
Colin Ebdon – London, England .....Sketches of Cladni, Damoiseau, and the region SW of Cassatus

Daniel del Valle – Aguadilla, Puerto Rico.....Sketches of Archimedes, Aristillus and Autolycus

# TOPOGRAPHICAL STUDIES



DAMOISEAU - Sketch by Colin Ebdon - London, England - August 5, 1998  
 25cm Newtonian - 183X - Seeing III (Antoniadi)



ARCHIMEDES - Sketch by Daniel del Valle - Aguadilla, Puerto Rico  
 Sept. 28, 1998 - 90mm Maksutov-Cassegrain - 129X - Seeing 9/10