AN APPEAL FOR OBSERVATIONS OF THE MOON

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In the past few years, particularly the last year and a half, there have been a number of reports of lunar transient phenomena. Various anomalies have been observed, such as white or gray obscurations, blue or violet haze and reddish spots or glows. Most have been observed against the lighted portions of the moon, but some have been seen on the dark side. Unequivocal and permanent records of some of these phenomena were made by the Russian astronomer, N. A. Kozyrev, who obtained spectra of phenomena occurring in the craters Alphonsus and Aristarchus. Z. Kopal of Manchester, England, also obtained photographs in the red and green regions of the spectrum by the use of filters, in which the brightness of extended regions of the moon appeared to be significantly enhanced in the red photographs for periods of the order of minutes or an hour.

The importance and significance of an improved understanding of these temporary phenomena need hardly be emphasized. Hence, the National Aeronautics and Space Administration has provided funds for the development and manufacture, by Trident Engineers Associates, of a device called *Moon-blink*, a conception of Dr. James Edson of NASA Headquarters. It utilizes the blink technique used for detecting motions or brightness changes of celestial bodies. The colour blink is obtained by a rotating filter wheel composed half of red and half of blue filters. The light after passing through the filters falls on the surface of an image converter tube which the observer watches or photographs. If a red or blue colour event occurs it should appear as a blinking spot. In the past six months one certain and another less certain phenomenon were detected using a Moon-blink.

Six of these Moon-blinks are already in operation at stations throughout the United States most of which are amateur observatories manned by groups or individuals. Two of these stations are on the Network for Confirmation of Lunar Transient Phenomena. The Network is composed of sixteen observatories, twelve professional and four amateur, which have agreed to observe the moon if alerted by a conference call, that a phenomenon is in progress on the moon. Confirmation may be reported during the call or a standard form may be sent by mail. The information is sent to the NASA Collection Center, c/o Mrs. Winifred S. Cameron, Goddard Space Flight Center, Greenbelt, Maryland 20771, Code 641.

This appeal is made to you, as amateurs, to observe the moon as frequently as possible and to submit reports to the address above of transient events after they have been thoroughly checked for a lunar, not terrestrial, origin and confirmed by one or more observers. The standard form is reproduced here and copies may be obtained from the writer.

There are, perhaps, certain features on the moon that are likely to show temporary anomalies if these are due to internal causes. Such features may be craters with central peaks containing a summit crater, mountains with summit craters, or sinuous rilles, which originate in a crater. Areas that have been reported in the literature more than once are: the central peak and eastern (I.A.U. convention for all directions) floor of Alphonsus; central peak and south-west rim of Aristarchus; Atlas, Plato, Piton, Schröter's Valley, sinuous rille just outside south-east wall of Herodotus, Ross D, Linné, Cape Agarum in Mare Crisium. Perhaps sinuous rilles in general should be frequently observed, also black-haloed craters like those in Alphonsus and around Copernicus. Photographs, spectrograms or any permanent records of transient events would be especially valuable.

DATA SHEET RECORD

Time of observation (standard time)
Name, and location within or around, of formation
Selenographic position (astronomical)
Hour Angle (or Right Ascension) and Declination of moon
Altitude of Moon
Phase of Moon
Colour—variations
Shape—variations
Estimation of brightness of phenomenon—variations
Duration
Location of observer
Name of observer
Experience in observing
Seeing conditions—poor, fair, good, very good, excellent
Transparency (faintest magnitude with eye)
Wind conditions
Telescope aperture and kind and power
Others called
Remarks and sketch