

## No. 45 PRELIMINARY DRAWINGS OF LUNAR LIMB AREAS, V

by ALIKA K. HERRING

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### 1. Introduction

This paper is the fifth in a series of six presenting a total of 12 interpretive drawings of the limb areas of the moon, which are intended to supplement the *Rectified Lunar Atlas*. Previous papers in this series have been published in *Comm. LPL* Nos. 4, 9, 19, and 44 (contained in the present issue).

The two drawings presented here extend the east lunar limb (astronautical direction) from 30° south latitude to the south pole. They are based on selected rectified photographs, with the best available photographs used as supplementary reference material. This method was fully described in *Comm. LPL* No. 4.

The two modifications introduced in the second paper are continued here. These were (a) the inversion of east and west with north placed at the top to conform to standard astronautical cartographic directions, and (b) the use of dotted circles to represent crater forms not well shown on the photographs (cf. *Comm. LPL* No. 9). As before, those details for which an identification cannot be made with reasonable certainty are omitted from the drawings.

Area 27 is shown in Plates 45.1–45.3.

Areas 29 and 30 were combined to facilitate the representation and interpretation of detail. They were drawn with the apparent illumination coming from the east (astronautical direction) instead of

from behind the limb (cf. *Comm. LPL* No. 4). Since the plates are oriented to maintain consistency in the position of the limb, the direction of illumination is from the top instead of from the side.

Excellent libration for the south polar region occurred on 1964 May 21, 22, and 23 (U.T.), at which time it was possible to make significant additions and corrections to Areas 29 and 30 by visual observation.

### 2. Notes on the Accompanying Plates

Plate 45.1 is the key chart to Area 27, and Plate 45.6 to Areas 29 and 30. They have a longitude and latitude grid in intervals of approximately 10° and are inserted for use in identification and comparison. The nomenclature of named features is given.

Area 27 (Pl. 45.3) covers the east lunar limb from 30 to 60° south latitude. It was drawn based on Lick Nos. 193 and 204 (rectified).

Other reference photographs were rectified prints of Lick Nos. 189, 193, and 204, McDonald No. 409, Yerkes Nos. 445, 556, 686, and 781; and unrectified prints of McDonald No. 409 and Yerkes Nos. 1604, 1607, and 1172.

Areas 29 and 30 (Pl. 45.5) cover the east lunar limb from 60° south latitude to the south pole. The drawing was based on Lick No. 204 (unrectified). Other reference photographs were rectified prints of Lick Nos. 189, 193, and 204, Yerkes Nos. 445,

466, 556, and 1592, McDonald No. 22, Mt. Wilson Nos. 96 and 97; and unrectified prints of Lick Nos. 193, 204, and 214, Yerkes Nos. 349 and 1172, and Mt. Wilson No. 97.

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#### REFERENCES

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- Whitaker, E. A., Kuiper, G. P., Hartmann, W. K., and Spradley, L. H. 1963, *Rectified Lunar Atlas* (Tucson: University of Arizona Press).

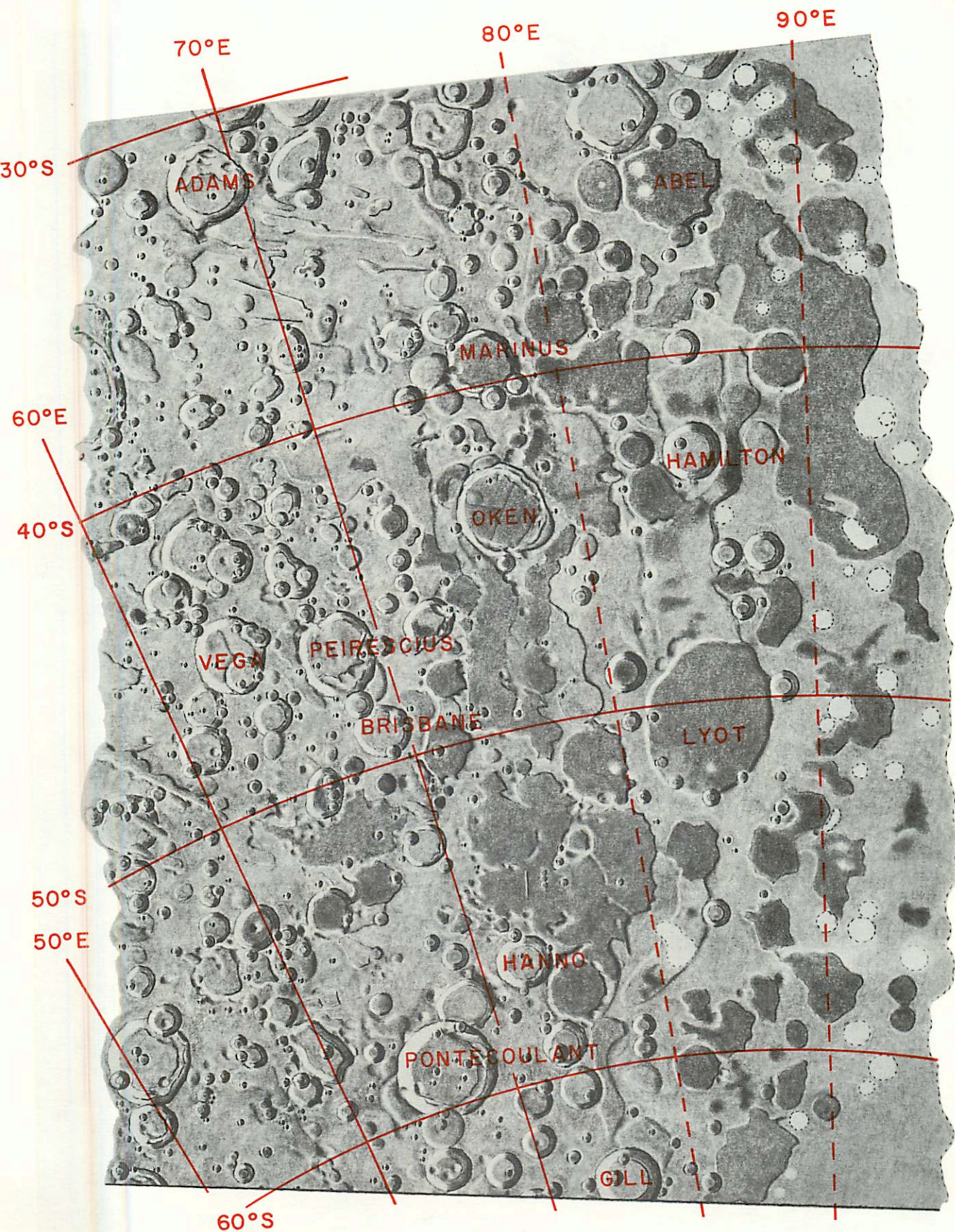
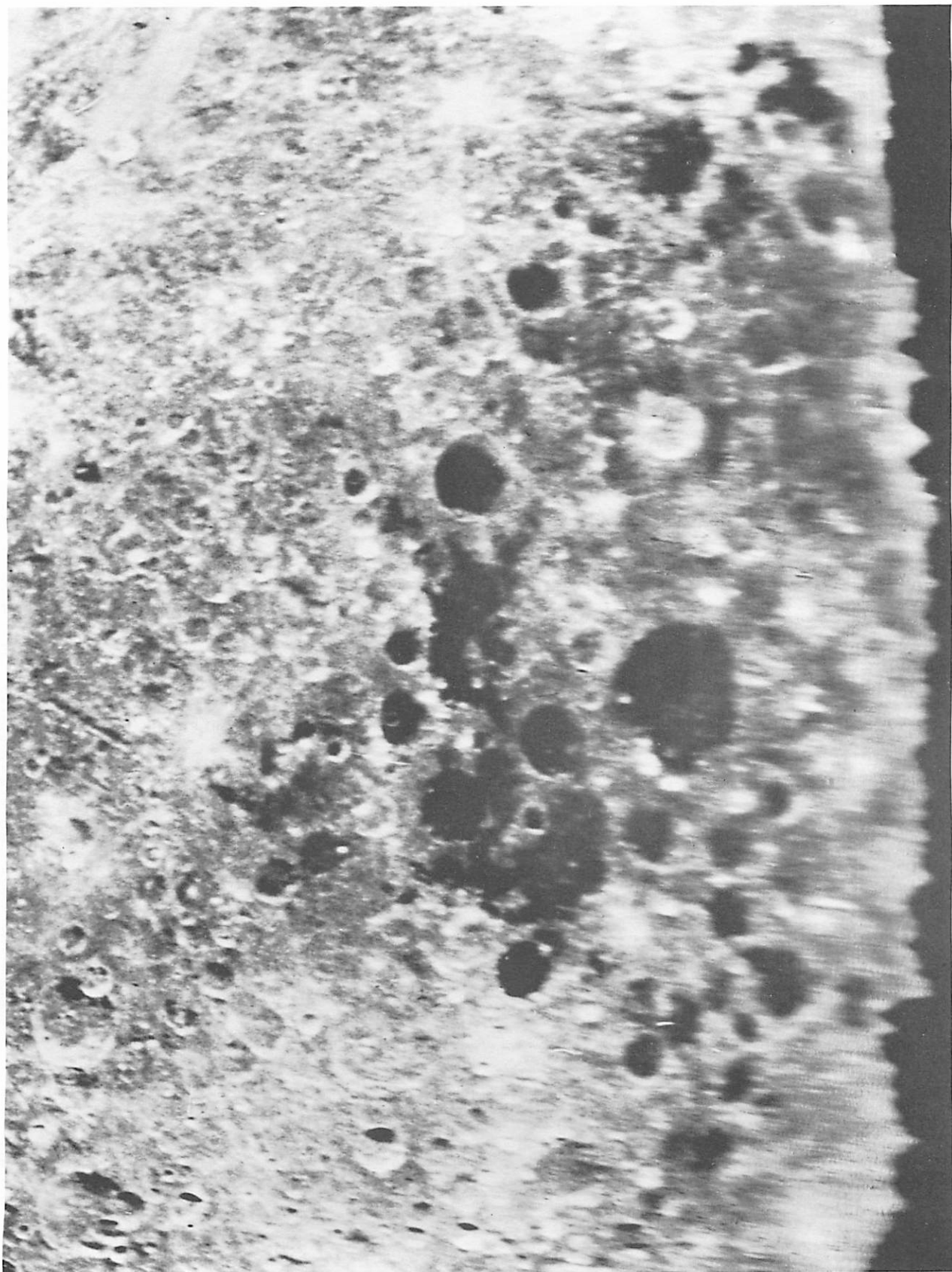
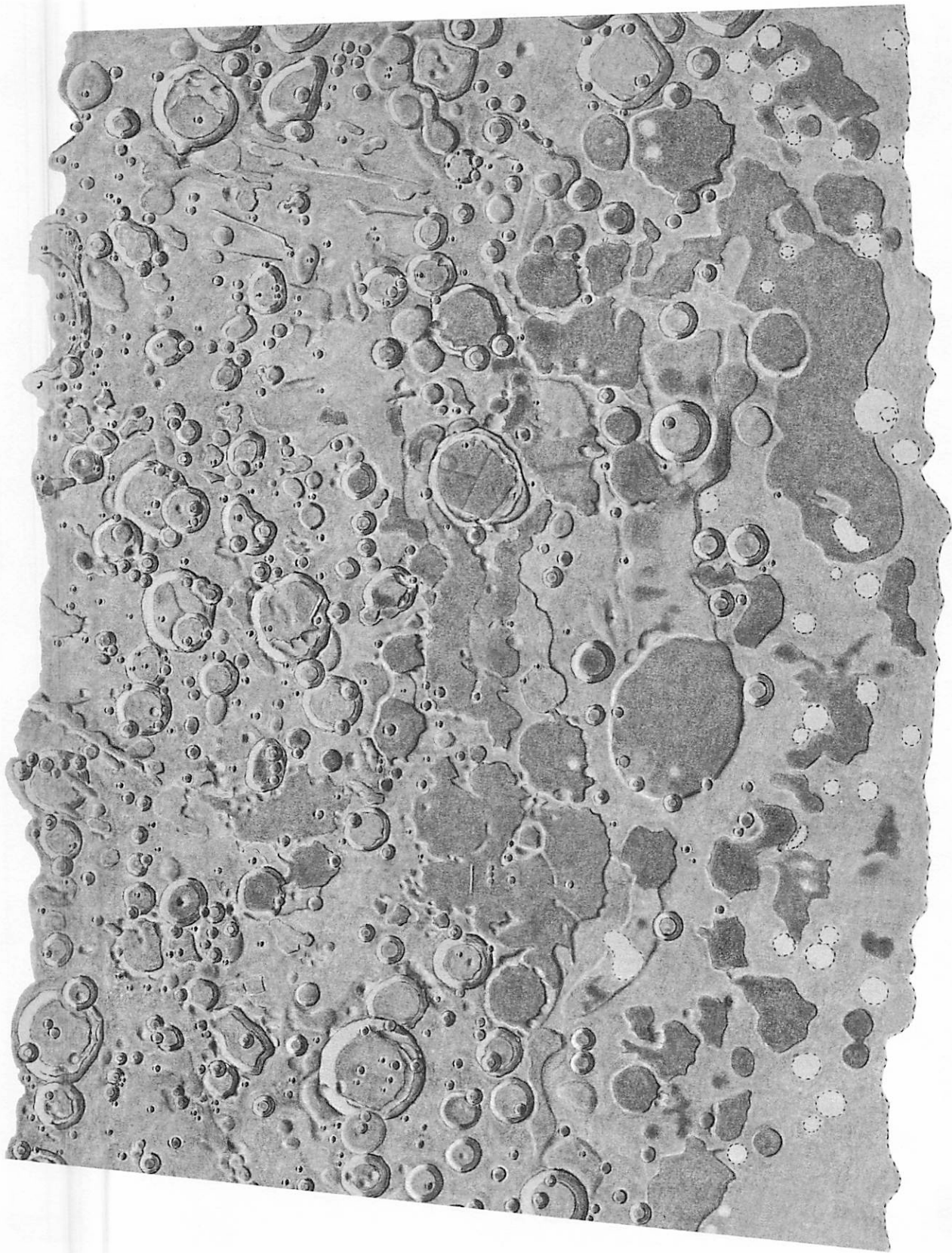


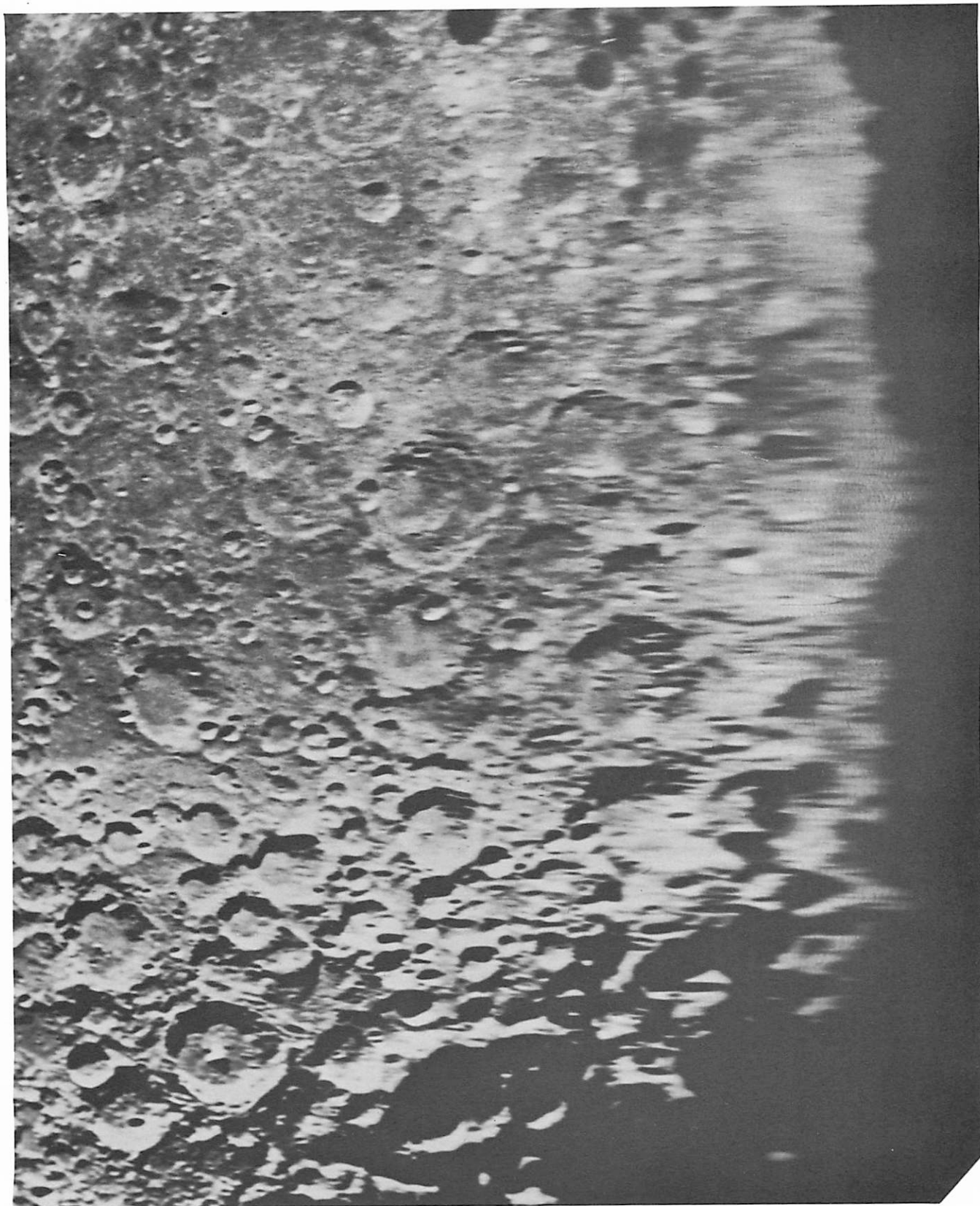
Plate 45.1. Key chart of Area 27.



*Plate 45.2.* Rectified photograph of Area 27.



*Plate 45.3. Rectified drawing of Area 27.*



*Plate 45.4.* Rectified photograph of Areas 29 and 30.



*Plate 45.5.* Rectified drawing of Areas 29 and 30.

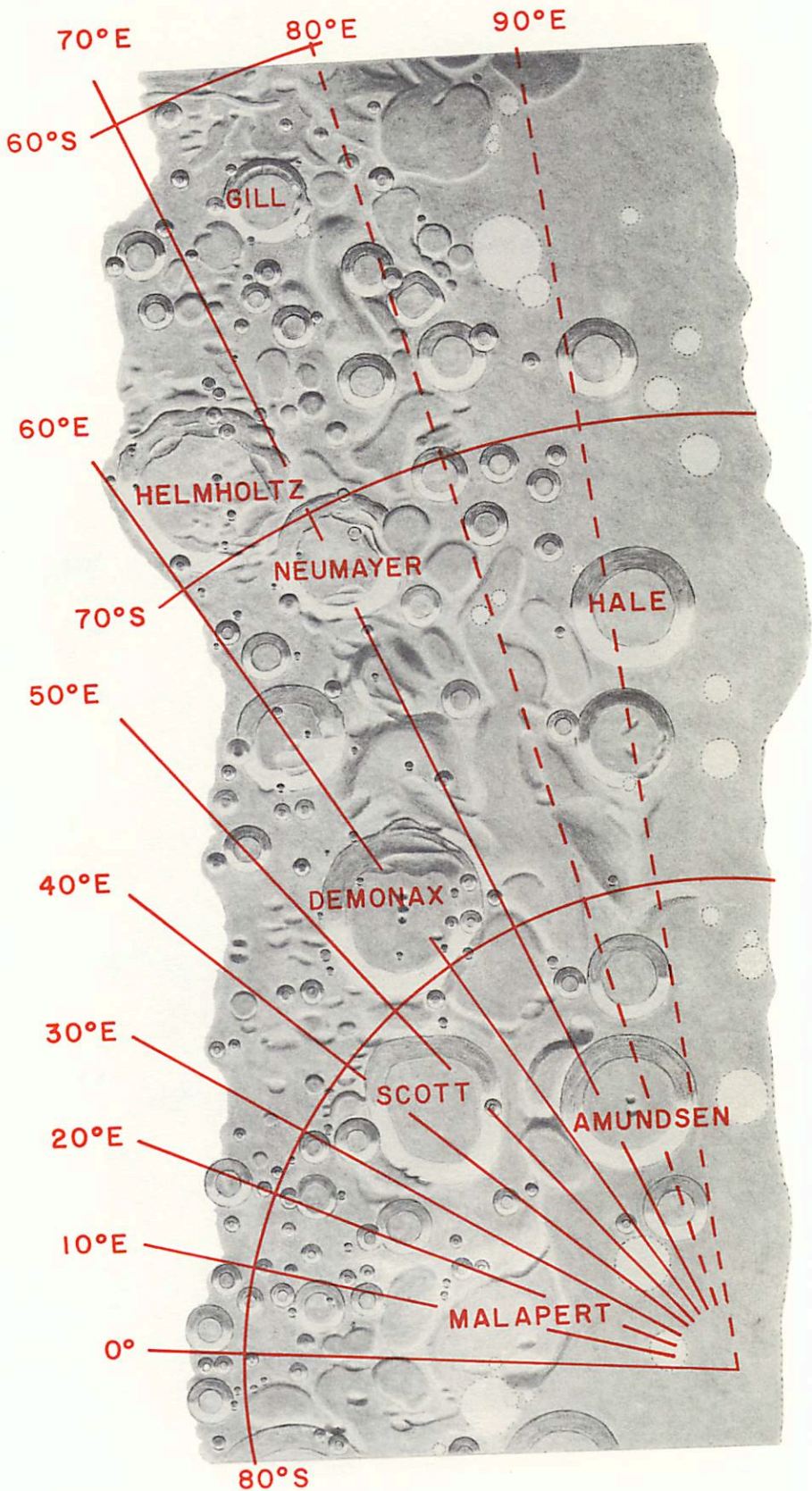


Plate 45.6. Key chart of Areas 29 and 30.