

GLACIERS OF MOUNT KENYA 1987, 1:5,000, KENYA

(Aerial photogrammetric maps)

S. Hastenrath, Department of Meteorology
University of Wisconsin/Madison

This account is based on Hastenrath et al. (1989a) to which reference is made for the full documentation. Further background information is contained in Hastenrath (1984, 1991).

Basic to the aero-photogrammetric mapping is a sound set of control points surveyed and marked in the terrain. Control points established by the IGY Mount Kenya Expedition (Charnley, 1959) are useful to this end, but it was found necessary to establish numerous other points using electromagnetic distance measuring (EDMS) equipment, and with a closure around the mountain. Fourteen of these points were used in the mapping.

The aerial photography was flown on 3 September 1987 by Photomap (K) Ltd., at an average height of 1500 m above the average terrain level of 4800 m. The photographs were taken by a Wild 152 mm RC 10 camera, and are at an approximate average scale of 1:10,000 with 80% forelap and 60% sidelap, to cope with the extreme local relief.

In addition to the 14 terrain control points a further 14 photogrammetric control points were identified in locations suitable for the stereographic compilation. Aerial triangulation and stereophotogrammetric plotting were performed using the Wild Autograph A8 plotter at the University of Nairobi. Refer to Hastenrath et al. (1989b) for a discussion of coordinate systems and the basis of Schneider's map from terrestrial photogrammetry in 1963 (Forschungsunternehmen Nepal-Himalaya, 1967).

A new glacier inventory was compiled from the map dated September 1987, and the glacier changes during 1963-87 were evaluated with reference to Forschungsunternehmen Nepal-Himalaya (1967).

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