

LEWIS AND GREGORY GLACIERS, KENYA, 1:2500

(Aerial Photogrammetric Map)

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The construction and evaluation of this map is fully documented in Hastenrath et al. (1995), while a brief summary must suffice here.

Surveys were flown by Photomap (K) Ltd. on 1 March 1990 at 22,000 feet, and on 9 September 1993 at about 20,500 feet. Stereoplotting was performed at the University of Nairobi by the same photogrammetrist, on the Wild A-8 Stereo Autograph. The 1993 map was compiled from two frames. Seven well-surveyed ground control points were available, as for mappings in earlier years (Hastenrath and Rostom 1990).

The changes in the Lewis and Gregory Glaciers during 1990–93 are summarized in the following tables:

(A = area, h = average thickness, V = volume, L = length, E = terminus elevation in 1990 and 1993, Δ = changes over the 1990–1993 interval)

Altitude m a.s.l.	Area km ²	Elevation m	Volume 10 ⁶ m ³	%
2840-2900	0.0565	-27.19	-1.54	2.36
2900-2950	0.2115	-25.73	-5.44	8.38
2950-3000	0.3525	-20.91	-7.37	11.35
3000-3050	0.9030	-17.91	-16.19	24.92
3050-3100	1.0690	-14.67	-15.68	24.14
3100-3150	1.3040	-9.48	-12.36	19.03
3150-3200	0.4580	-8.75	-4.01	6.17
3200-3250	0.3660	-6.46	-2.36	3.64
2840-3350	4.7205	-13.76	-64.96	100.00

	Lewis			Gregory		
	1990	1993	Δ	1990	1993	Δ
A [10 ³ m]	230.0	205.0	25.0	63	40	23.0
h [m]	13.7	10.3	4.6	-	-	0.9
V [10 ³ m ³]	3170.0	2393.0	1064.0	-	-	57.0
L [m]	940.0	915.0	25.0	-	-	30.0
E [m]	4620.0	4620.0		4708	4720	