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X	Y	H	g'	T	γ_0-g
69 760	72 230	365,8	719,36	0,81	52,49
69 820	80 655	389,3	712,26	0,72	54,83
269 945	666 025	334,1	980 731,00	0,57	47,83
70 135	78 295	355,4	721,67	0,67	52,78
70 185	79 210	350,3	722,09	0,84	53,29
70 385	64 805	359,5	726,79	1,05	46,63
70 400	63 680	393,3	720,45	1,16	45,83
70 610	64 250	369,3	725,52	0,83	46,26
70 745	65 270	321,8	735,25	0,54	46,82
71 285	64 525	338,3	732,98	0,84	45,79

SUMMARY

The present paper contains the results of a detailed gravity survey carried out on the Swiss Plateau during the summer of 1952 with a Worden gravity meter. 780 stations have been established in an area of 250 square miles situated NW of Zurich. As this was the first modern gravity survey in this region some problems of general character had to be solved beside the geological interpretation.

The first part of the paper deals with some of these problems. In particular the topographic correction, the distribution of stations and the rock densities are discussed. The last question needs still further investigations.

In the second part the geological interpretation is given. The elimination of the regional gradient is described and the continuation of the «Laegern-Anticline» and other geological structures are discussed. The construction af a «Molasse Map» and a «Quarternary Map» is probably of special interest. The «Molasse Map» is based entirely on stations which are situated on either Tertiary (Molasse) or Mesozoic. The «Quarternary Map» was constructed by subtracting the «Molasse Map» from the «Bouguer Map II». The latter was drawn utilizing all the gravity data available, thus including stations situated on Quarternary deposits. The regional gradient is removed in all these maps and is only contained in the «Bouguer Map I».

The third part summarizes experiences of general value which will be useful for future comprehensive gravimetric research on the Swiss Plateau. The fourth part – including the tables – gives the numerical data for each station.

The following conclusions were drawn:

1. The «Laegern-Anticline» continues in NE-direction and joins the «Irchel-Anticline».
2. The thickness of Quarternary deposits in the Limmat-, Glatt- and Furt-Valley is considerable and increases towards the south.
3. The thickness of Tertiary (Molasse) sediments in the region of Zurich is about $^2/_3$ – 1 mile.
4. It proved useful to draw a «Molasse Map» (Plate XII).
5. The same can be said in special cases for the «Quarternary Map» (Plate XII).
6. The regional gradient in this area (N 30° W, 1,9 mgl/mi) is a consequence of the following facts:
   a) The mass deficiency under the Alps.
   b) The ascending surface of the «Grundgebirge» (old crystalline rocks) towards the Black Forest.
   c) The ascending surface of the Mesozoic rocks towards NNW.