

THE CAMERA CALIBRATION TEST FIELD OF JÄMIJÄRVI

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Today the higher requirements concerning the accuracy of the photogrammetric operations set far stricter demands on the cameras as well as on the photographic material. In order to facilitate the calibration of these elements the National Board of Survey has established a test field at Jämijärvi, a rural municipality about 200 kilometres north-west from Helsinki.

At the first stage the test field included 187 calibration points distributed evenly over a square area of 800 x 800 metres. The distances from the neighbouring points are mostly 66 metres.

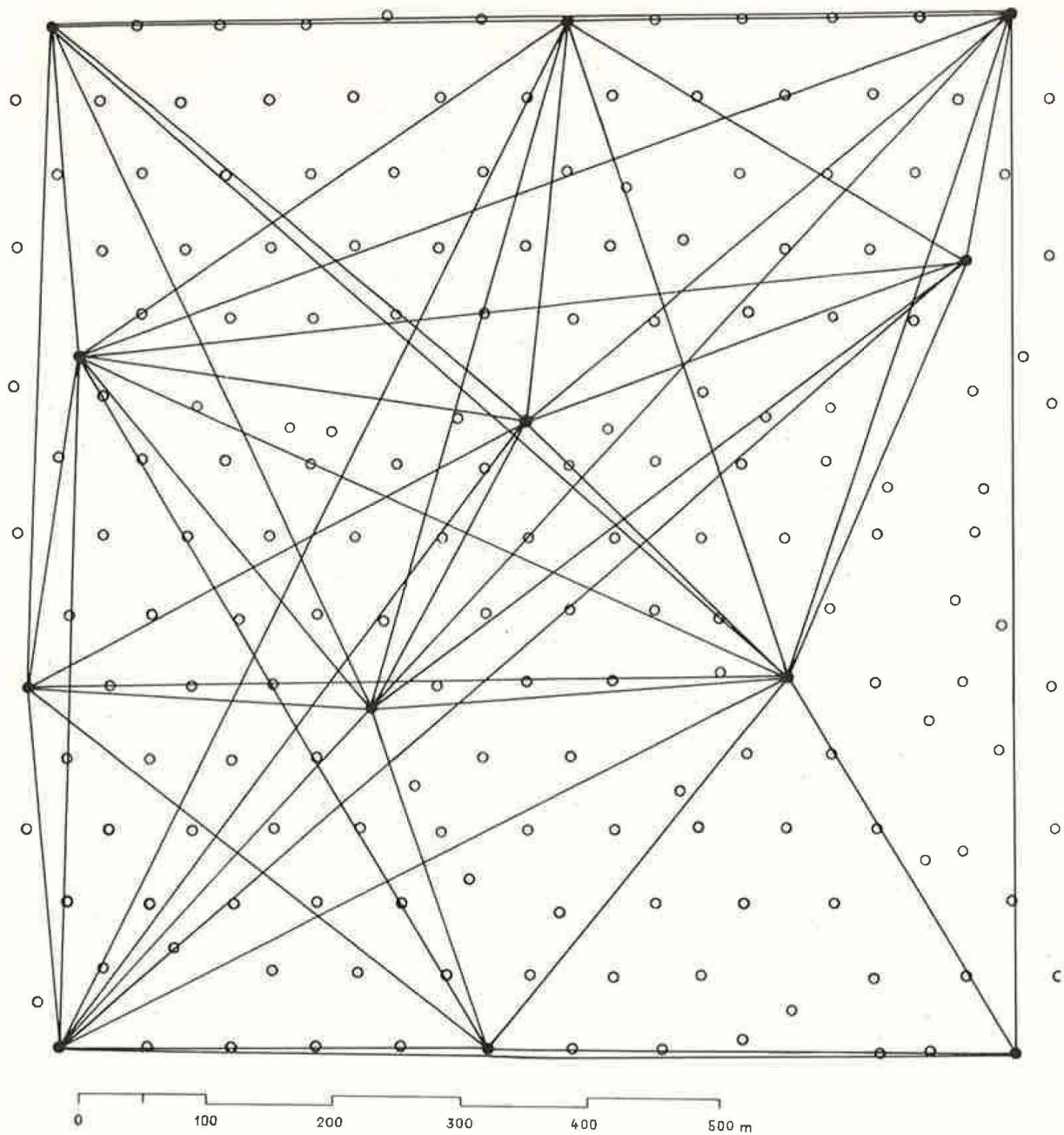
At the beginning the area was submitted to a careful geological investigation. There the ground proved to be favourable consisting of gravel and coarse sand not inclined to freeze. The points were monumented according to the advice of a building geology specialist. Steps have been taken to detect any emerging movement.

The net has been divided into two orders. The primary order consists of twelve points and it has been determined by angle observations with a theodolite Kern DKM 3. The adjustment has given a maximum mean square root error of one coordinate as 1.2 mm. Later on the net has been observed with a Tellurometer MA 100, but the results are not yet available.

The points of the secondary net have been observed with a theodolite Wild T3. Now that two thirds of the points have been adjusted the highest mean square root error of a coordinate is 1.0 mm.

All elevations of the points have already been determined four times by precise levelling. The differences between different levellings have been quite small.

A more detailed description of the test area, the determinations and the computations as well as a report about the accomplished camera calibrations will be given later when the results are available.



The distribution of primary and secondary points
at Jämijärvi test field