

Analytical Cadastre Practical Aspects – Research Report

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SUMMARY

About a decade ago the IMC (Israel Mapping Center) started to research and investigate possibilities of creating digital and analytical cadastre.

A lot of experience achieved in our company in the last decade, actually we were pioneers in Israel in that area: investigating and creating Analytical cadastre. It began in researching the criteria for measuring and criticism for analytical cadastre on 5 registered blocks in Dalyat-El-Carmel (Haifa mountains in the north of Israel); Continued with calculating and defining analytical cadastre of 15 out of 60 registration blocks along the Mediterranean seashore; And now a days we accomplished a project of 39 out of 69 registration blocks at Lakhish district, in area characterized with hilly land, and mostly cultivated and with few agricultural settlements.

As a cadastre consultant for the Israeli Mapping Center (IMC) the author has a wide scope of the aspects concerns to those researches.

Transforming the analogue traditional cadastre in Israel to analytic one established in six stages:

1. Gathering all the background information about the registration blocks, such as original field books which contain the authentic measurements and observations took on the act of registration, field sheets that contain direct measurements and corrections of wrong boundaries, registration maps and mutations, block sheets, control net points and so on.
2. Calculating and adjusting authentic measurements in the original control network and approximate transforming to the new control network.
3. Field measurements, usually GPS measurements of authentic preserved border marks and control network points.
4. Accurate transforming to the Israeli datum and control network, while joining all blocks together.
5. Quality control checks.
6. Final definition of the cadastre (with full reports from all stages), and assimilate it in the national geographic information system.

The paper analyzes the different stages mentioned above from the practical points of view. It brings many tips and ideas to the land surveyor which makes the work much more efficient.

This paper shares the subscriber with the vast experience we gain with a lot of hard work and sweat.

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