The New Israeli Survey Regulations

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Surveying the world of tomorrow - From digitalisation to augmented reality
In this presentation

- Chronology of regulation in Israel
- Main innovation in current regulation
- Main principals in Geodesy
- Main principals in Cadastre
- Main principals in Mapping and Geo-Information
Chronology of regulation and legislation

- **Survey Of Israel (SOI)** - National agency for Geodesy, Cadastre & Mapping
- Established in 1920
- Survey Ordinance of 1929
- The Survey Regulations - 2016
- Update every two decades
- Director General instructions
Main innovation in current regulation

- Continuously Operating GNSS Reference Stations (CORS)
- Setting the principles of Coordinate Based Cadastre (CBC)
- Quality ranking system for parcel coordinates
- National Cadastral Databases
- From a paper based map to a digital map
- Internet technologies and automated quality control
- Using Advanced technologies for mapping
Main innovation in current regulation

Evolution

Charles Darwin

Revolution

Che Guevara
Primary Control Network

H accuracy:

G0: 3mm
G1: 6mm
G2: 15mm

V accuracy:

G0: 5mm
G1: 10mm
G2: 20mm
Secondary Control Network

Horizontal Control

- S
- S0 15mm
- S1 25mm
- S2 35mm
- S3 50mm

Horizontal Accuracy

Vertical Control

- H
- H1, H2
- H3
- H4 - H6

Vertical Accuracy

Horizontal Accuracy:
- 2√L, 3√L
- 10√L
- 20√L - 60√L
Main principals in Cadastre

- From paper based maps to a digital workflow
- Country wide surveying procedures
- Boundary Documentation Map (BDM)
- Defining the National Cadastral Database (NCDB)
- Setting the principles of Coordinate Based Cadastre (CBC)
Coordinate Based Cadastre

- Foundations of a Modern Cadastre
- National Database for property location
- Determine property Coordinates by CORS
- No need to search for original marks
- Maritime Cadastre
- 3-D Cadastre
Main principals in Mapping and Geo-Information

- Constant flow of new technologies and concepts
- Definitions & quality requirements - keep it simple
- Underlines Three important concepts:
  1. Digital environment & Metadata
  2. Solid quality control procedures- ISO19157
  3. Enabling emerging technologies and advanced mapping products
Survey Regulation support new mapping technologies and standards

Satellite sensors

UAV mapping

Mobile mapping

Advanced GNSS

Digital geodetic leveling

Laser scanning