# ENGINEERING GEOPHYSICAL SURVEYS FOR AIRPORTS

On airport operation and implementation of reconstruction and repairs of runways there appears a number of questions concerning the structure and state of constructional layers of runways, defects and heterogeneity in hard coating and lower coating.

Application of current geophysical technologies, notably newest instruments, respective methods and software of our developers and involvement of drilling data makes it possible to acquire reliable decision to the assigned tasks.

## APPLICATIONS:

- Engineering geological surveys for airports and runways
- Determining thickness of structural layers of runways and taxi channels
- Detection of nonsolid and watered zones
- Study of reinforcement features of concrete pavement slabs
- Study of engineering geological conditions of the zones liable to deformation:
  - Determining occurrence level of subsoil waters and upgrade water existence
  - Mapping of bedrock foundation roof
  - Locating zones of specific subsoil spread (peat, silt, salt subsoil etc.)
  - Permafrost top tracing
  - Detection of heavy icy rocks
  - Examination of taliks, supercooled water brines with permafrost
  - Examination of permafrost dynamics (seasonal freezing zones)
- Mapping of underground utility lines
- Study of dangerous engineering geological processes:
  - landslides
  - floating earth
  - karstic phenomena
- Study of engineering geological environment of zones adjacent to airports
- Checking runway pavement compliance with project documentation.

## THE FOLLOWING EQUIPMENT IS APPLIED:

- OKO-2 Ground Penetrating Radar
- Borehole GPR Complex
- IDS-1 Pile Testing Device
- LAKKOLIT-X-3 Multichannel Seismic Station
- ERA-MAX Low Frequency Resistivity Instrument
- ERP-1 Electrical Instrument



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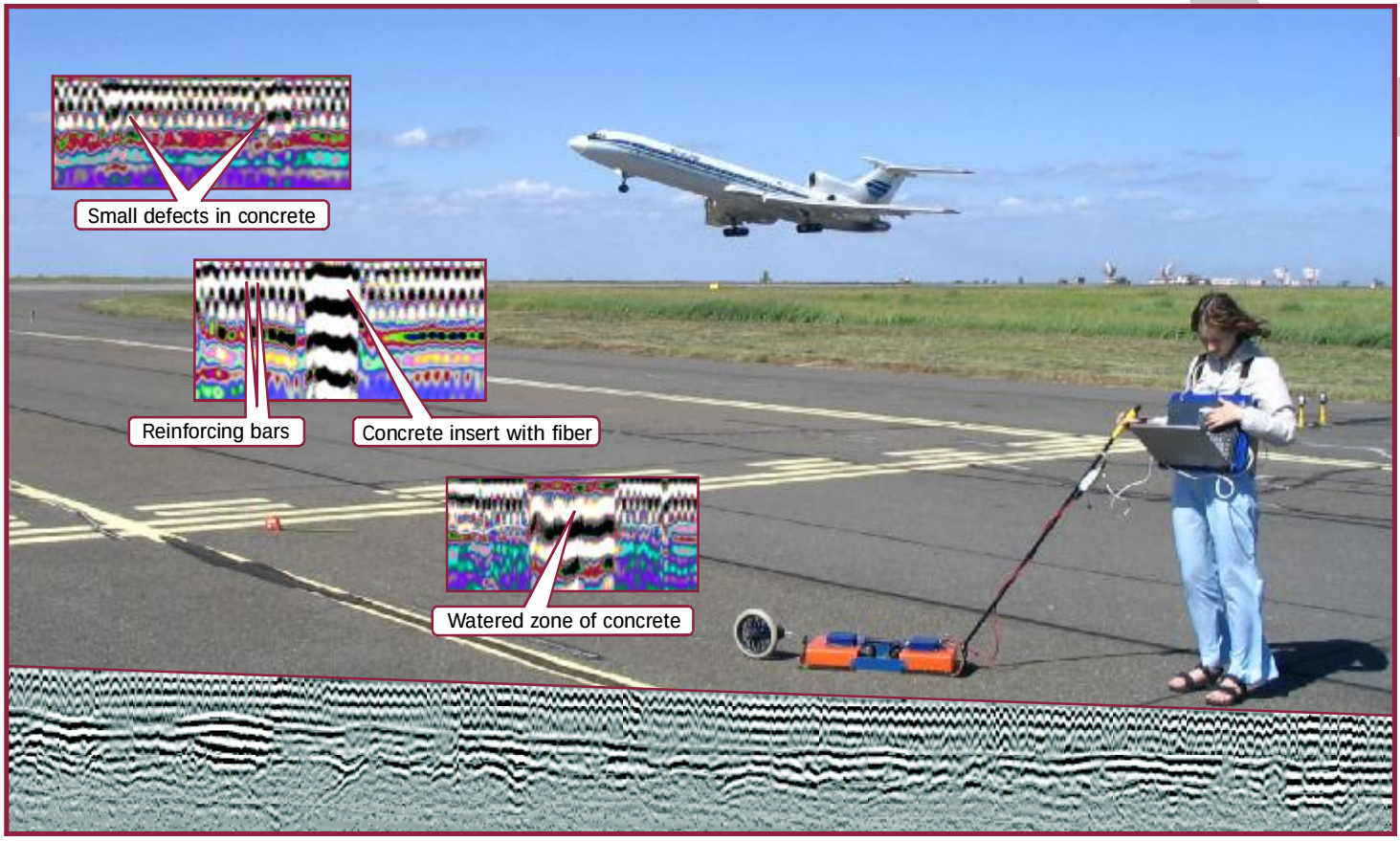
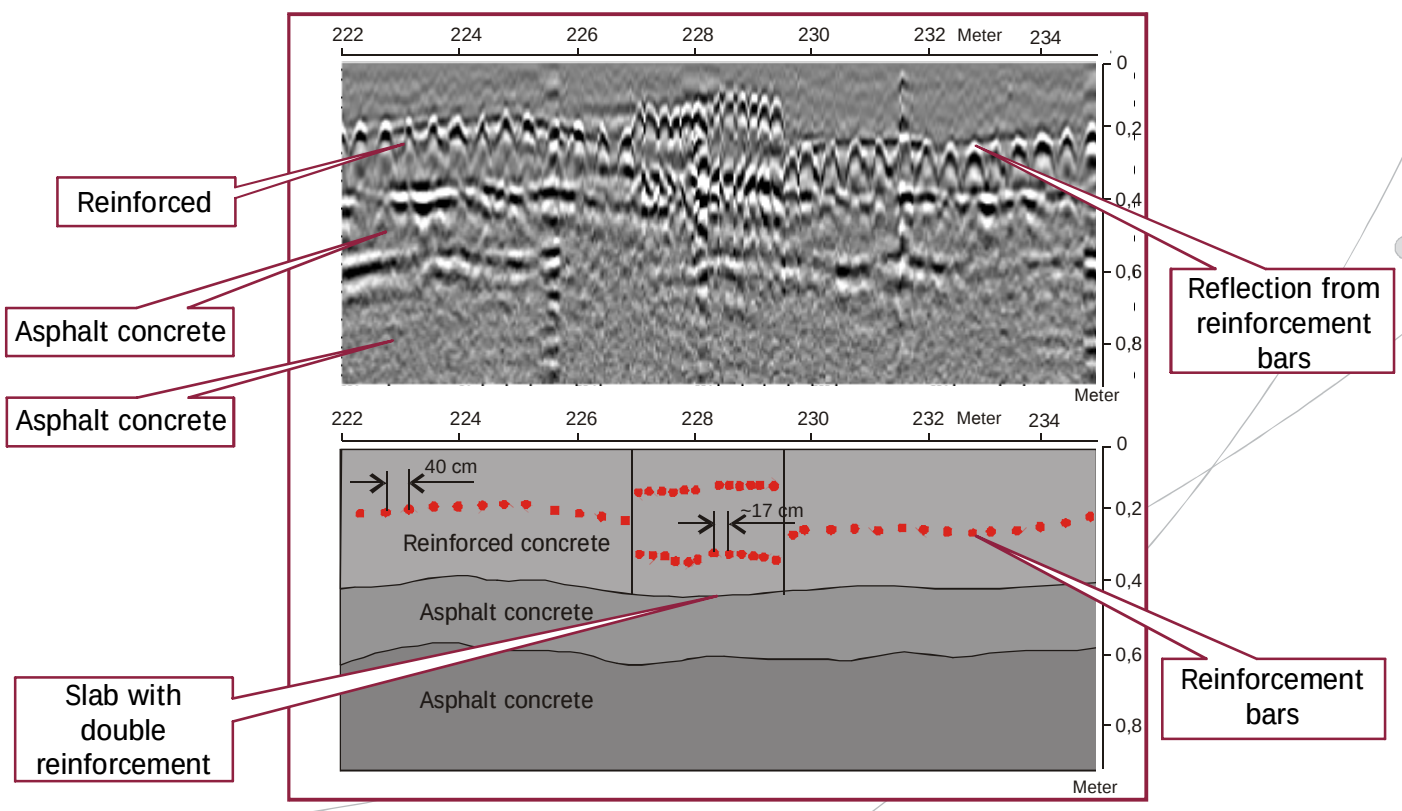



## STUDY OF REINFORCEMENT FEATURES OF CONCRETE PAVEMENT SLABS



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