Remote Survey Field Teams and Central Office Linked

Okregowe Przedsiebiorstwo Geodezyjno-Kartograficzne (OPGK), a survey firm working on road survey contracts across Poland, is achieving significantly improved efficiencies using an Electronic Centre for Management of Geodata (ECMG) to link remote field technicians and the central office. With ECMG, a single field technician can take measurements for a proposed road from virtually anywhere in Poland and send all data wirelessly to the central office for overnight preparation of road design stakeout data to enable next-day staking.

Land survey for road construction is a linear-type project that can benefit from the integrated use of several land survey solutions. The ECMG system begins with field technicians collecting data using fully integrated Spectra Precision Epoch GNSS receivers, Focus 30 robotic total stations and Nomad data collectors. Data is exchanged and full integration is achieved across the different units by using Survey Pro software running on all units. With the Epoch receiver's static capabilities all base stations and backsight points are measured. After the project map is updated with the Focus 30, the data is transferred via either Wi-Fi or GSM /UMTS to a mobile connectivity centre, typically located in the technician's vehicle, where it is transmitted to the office network and the central office via GSM (GPRS, EDGE) nor UMTS (HSDPA). At the central office, the geospatial database is automatically updated and post-processing calculations are completed. The data is reviewed with the clients and investors, decisions are made, and the new data is used to finalise design of the road. Design and stakeout information is completed and with the fieldwork agenda it is wirelessly returned to the field unit for stakeout. OPGK is achieving significant efficiencies with this new system. OPGK purchased the Spectra Precision solution from Impexgeo.

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