The biggest large-scale project in Bulgaria

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For updating the cadastral information system of Sofia Municipality, Geographical Information System – Sofia Ltd. choose Hansa Luftbild Sensorik und Photogrammetrie GmbH, Muenster to take pictures over entire territory, in order to produce orthophotoplans of the Municipality and to create a monitoring system of flood control of Iskar and Lesnovska Rivers.

The project covers 1467 sq. km with flat, lightly hilly and hilly terrain, 750 m height above the sea level. The photo-flight is executed during the second half of April and first half of May 2008, using Cessna C 402 aircraft.

The pictures are taken by DMC digital mapping camera, separately in two subprojects – urban area with GSD 10 cm and 1000 m flight height, and rural area – GSD 20 cm and 2000 m flight height. The total number of the pictures is 6912 with forward overlap 80 % (GSD 10 cm) and 60 % (GSD 20 cm), side overlap 30 %.

Before executing of the photo-flight 550 ground control points are pre-marked on the terrain by two kind of marks - circles with diameter 30 or 45 cm (according to the GSD), white or yellow painted over the solid materials (asphalt, pavement, concrete, structures), and squares 30x30 or 45x45 cm fixed over the wooden sticks (4x4x30 cm) on the ground level in rural area (fields, uncultivated lands, inner courtyards, etc.). The coordinates of the pre-marked ground control are determined by GPS-receiver Topcon GGD with an accuracy of ± 2 cm in position and ± 3 cm in height.

The pictures will be process in Photogrammetry Department at GIS SOFIA Ltd by digital photogrammetric workstation PHOTOMOD, version 4.4 of RACURS Co.