

# SOME ASPECTS OF GEO-TOPOGRAPHIC SECURITY RELATED TO THE USE OF SPECIAL POLICE FORCES

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**Abstract:** Geotopographic security incorporates measures, procedures, and activities aimed at timely gathering, sorting and processing, as well as presenting, designing, distribution, submission, exchange and storage of geospatial data relevant for the subject-matter in question, which is necessary for effective and efficient management of the system of defence and security measures and activities. It is mostly based on geotopographic materials designed in the graphic, photographic, digital, numerical, and textual forms. However, experiences from the police interventions in our national geospace indicate that geotopographic security, as a form of security, was comparatively frequently used, although it had no theoretical foundation. This means that police officers in the units performing special security assignments do not have appropriate geotopographic materials, so that prior to, during, and after an intervention, they use the existing system of maps and plans for military and civilian purposes in order to prepare, organize, execute, and monitor the situation related to the given geospace. These materials do not contain all relevant data and their contents may be outdated.

The paper is therefore aimed at offering a presentation and instruction on producing certain types of modern geotopographic materials by using geo-information technologies such as remote sensing products – the LIDAR system and Pictometry, which can be used for specific and modern purposes of special police forces to a certain extent. The paper presents a way in which the shortage of special-purpose geotopographic materials can be compensated for because they are of particular importance as support in the decision-making process during preparation and execution of anti-terrorist and counter-insurgency police activities.

**Keywords:** modern geotopographic materials, remote sensing, geo-information technologies, tactics of deploying special police forces.

## INTRODUCTION

Geosecurity is a general term for overall activity of geosciences. The concepts of geotopographic security of the military, geotopographic security of the police, and geotopographic security of civil structures (architecture, civil engineering, urbanism, settlement planning, the cadastre of real property, environmental protection, etc.) have been derived from it. Geotopographic security of the police dates from the mid-twentieth century but its concept and essence have since been insufficiently familiar in police practice. Strategic and doctrinal documents on security and expert literature do not pay due attention to the concept so that certain questions remain unanswered and one of them is geotopographic security of special police units.

These units are conceived as specialized organizational parts of the Police Directorate and the Ministry of Interior of the Republic of Serbia, whose primary purpose is to carry out tasks which outstrip the framework of regular police duties. Generally, they can be divided into special purpose units (the Police Brigade and the Mobile Police Unit) and special tactics and weapons units with 'military capability' (Gendarmerie, Special Anti-Terrorist Unit, Counterterrorist Unit, and Helicopter Unit) which can be engaged only with the prior permission of the minister, at the suggestion

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of the Director of Police (the proposal contains the engagement plan – aims, activities, responsible commanding and executive personnel, geospace and time, and the engagement assessment in terms of expected effects).<sup>3</sup>

Without diminishing importance of developing a comprehensive concept of geotopographic security for all special purpose police units, the paper will place an emphasis on certain aspects of geotopographic security of Gendarmerie, Special Anti-Terrorist Unit, and Counter-Terrorist Unit, as the units that are highly specialized in arresting dangerous criminals, resolving hostage rescue situations, neutralising terrorist groups, extradition, security arrangements for protected persons and objects of special importance, reinstating public order and peace following serious, large-scale violation thereof, and other special security-related tasks.

## CONCEPT AND STRUCTURE OF GEOTOPOGRAPHIC SECURITY FOR POLICE PURPOSES

There is no doubt that manifestation of violence perpetrated as acts of organized crime and terrorism, in the situations of armed rebellions, civil unrests, hostage situations, natural and technical disasters present danger to the individual and society generally.<sup>4</sup> Since one of the main functions of the state is the protection of society and all of its members, combating such manifestations of national security threats appears to be absolutely necessary. One of the most important state instruments in this area is the police.<sup>5</sup> Curbing the most serious forms of organized crime and terrorism is one of the greatest problems that the police are faced with. Naturally, each intervention has its special characteristics, but the principles for assessing situations, decision making, creating and carrying out plans, issuing orders, and monitoring the course of the intervention,<sup>6</sup> apply generally. The interventions of special police forces aimed at suppressing organized crime and terrorism involve specific security tasks including: planning, organizing, and carrying out the most complex security tasks in cases of countering terrorism (recording, tracking, comparing, and predicting the phenomena and events that contain elements of national and international terrorism; the detection of criminal acts of terrorism; securing physical evidence and arresting perpetrators; preventive counterterrorist activities; direct interventions aimed at eliminating terrorist groups and dissolving organized networks of terrorists); resolving hostage situations, especially in the cases of hijacking and vehicle abduction (involving a bus, passenger vehicle, train, vessel); barricades (storming besieged facilities and arresting persons on these premises); arresting dangerous criminals and criminal groups; interventions in situation when armed resistance is expected; providing assistance in combating organized crime; providing securing of persons and facilities under an immediate threat of terrorist attacks; ensuring public order in high-risk situations and providing assistance in emergency situations.<sup>7</sup>

In order to perform these tasks, members of special police units have to be trained<sup>8</sup> in the use of the existing geotopographic materials for obtaining necessary data on geospace but also to keep them up-to-date so as to serve their purpose, because the police do not have their geodesic service. This means that the aforementioned special assignments specifically demand careful consideration of the characteristic features of geospace in which they are to be performed. These needs can best be defined by the unit managers and officers, before, immediately during an intervention in the field, and after its completion.

3 Subošić, D., Mojsilović, Ž., (2011). *Jedinice policije posebne namene kao protivteroristički potencijal Ministarstva unutrašnjih poslova Republike Srbije*, U Zbornik radova: Međunarodna naučno-ostručna konferencija „Suprotstavljanje terorizmu – međunarodni standardi i pravna regulativa“, MUP Republike Srpske i Hanns Seidel Stiftung, Kozara, 29-30. mart 2011. str. 342.

4 Милојевић, С., (2008). *Оружана побуна и побуњеничка дејства као облик угрожавања безбедности државе*, Безбедност, год. 50, бр. 4, р. 6.

5 Стевановић, О., Милојевић, С., (2004). *Теоријски и практични аспекти савремених операција и операција снага полиције*, У зборник радова „Теоријски и практични аспекти савремених операција“, Београд, р. 185.

6 Регодић, М., (2007). *Користићење сателитских снимака за вођење радне карте*, Војнотехнички гласник, год. 55, бр. 1, р. 62.

7 Милојевић, С., (2009). *Полицијска тактика*, Криминалистичко-полицијска академија, Београд, р. 156.

8 Јанковић, Б., (2010). *Превенција насиља на спортским приредбама*, Гласник права, год. 1, бр. 3. стр. 154.

Experiences from interventions of special police forces in the national geospace in the past 20 years have shown that geotopographic security, as a kind of security, was relatively present, but that it was not theoretically defined. Thus, for instance, securing an intervention of special police units aimed at restoring large-scale disturbances of public order includes measures, procedures, and activities which prevent sudden disorderly activities of rioters or alleviate and eliminate effects of the large-scale public order violations and create favourable conditions for organized, timely and successful preparation and engagement of the police, i.e. it creates favourable conditions for the intervention of the police. The types of security interventions of the police include: informational and psychological – propaganda security, intelligence and security services, logistics security, medical security, geotopographic security, transportation security, fire fighting security, veterinary security, masking, safety at work and environmental protection.<sup>9</sup>

The concept of 'geotopographic security' is frequently understood as delivering ready-made geotopographic materials. Besides, there is a misconception that the word 'security' means delivering ready-made geotopographic materials, because this is not necessarily done by the geodesic service. The basic question is: what to deliver? British experts have found out that the data on geospace<sup>10</sup> are required for decision-making in 85 % of the cases and providing them is the task of the civil and military geodetic authorities. The primary duty of the said institutions is to gather geospace data in one place, whether from the field or from official documents, to process them, make geotopographic materials, and then provide their users with these materials in an acceptable way, storage of these materials and, if necessary, their withdrawal from official use. Geotopographic security also includes professional training and qualifying persons for collecting and processing data on geospace, its continuous exploration, designing geotopographic materials<sup>11</sup>, and their skilful use and updating.

A conclusion can be drawn that the concept of geotopographic security as part of geosecurity involves complex scientific and research activities, production, education and distribution activities performed by civilian and military geodesic offices, institutions of higher education and research institutions, aimed at timely collection, processing, topic-focused modelling, delivery, exchange, updating, and storage of the data on the geographic space.

## THE SITUATION RELATED TO GEOTOPOGRAFIC SECURITY FOR POLICE PURPOSES

Geotopographic materials make up the foundation of geotopographic security. They are made in graphic, photographic, digital, numerical, and textual forms. Currently, the existing geotopographic materials for police purposes in Serbia are made by the Military Geographical Institute, the Republic Geodetic Authority, social institution and renowned privately-owned companies in the field of geo-information technologies. These materials most often include geodesic plans, topographic and thematic maps, photographic and digital geotopographic materials that do not have completeness and accuracy required for the police purposes they serve.

Thus, for instance, the police may need some specific data on characteristics of facilities in the location of an intervention or surrounding it if they want to devise efficient and effective tactics of deploying special police units in urban settings. Such data may be related to the purpose of a building, the number of floors, construction properties of the building (the type of materials used for construction, walls, type of the roof, existence of balconies or terraces, possibilities of crossing from one wing to another, basement, underground garages, passages, catering entrances, side exits, elevators, fire escape staircases, glazing, flammability, and communal utilities (remote heating, gas connection, cable television). The data may also focus on reconstruction works (facades, pitched roof extensions), the characteristic of urban roads (their capacity, vertical and horizontal traffic sig-

9 Вулетић, Ж., Илић, А., Милојковић, Б., (2009). *Модел геотопографског обезбеђења употребе јединица полиције при интервенцији на успостављању нарушеног јавног реда и мира у већем обим*, Безбедност, год. 51, бр. 1-2/09, р. 331.

10 Павловић, М., (2003). *Појмовно одређење и могућа организација геотопографског обезбеђења наше војске*, Зборник радова ВГИ, број 11, р. 77.

11 Милојковић, Б., Алексић, В., Кицошев, С., (2011). *Туристичко-картографска визуализација Европског пешачког пута – деновице Е7 на планини Тари*, ТЕМЕ, год. 35, број 1/2011, р. 111.

nallization, public transportation stops, garbage containers, jardinières, etc.) and city greens (parks, lawns, flower beds, children's playgrounds, fountains, public drinking-fountains, walking paths, benches, dustbins, fences in such locations). In addition to this, they may be related to restaurants with outdoor gardens, parking lots and public garages, abandoned construction sites, kiosks, mobile souvenir and book shops, advertising billboards and columns, street lighting, electric supplies for city transportation systems, phone booths, power substations, power cabinets, hydrants, manholes, underground utility lines and facilities, etc.

Another problem appears to be the fact that the contents of topographic maps used so far have not been systematically renewed for 15 or even 25 years. This period of time is very long with respect to police needs, so that it does not comply with the results of global research which states that the optimal time interval for a systematic renewal of maps, suggesting that for a topographic map 1:25000 the period is 5 to 6 years, for example.<sup>12</sup> To illustrate the use of outdated topographic maps, we can mention the arrest of three Wahabites for which there were reasonable grounds to believe that they had committed a criminal act of terrorism in Novi Pazar in 2008, when the officers of the Counter-Terrorist Unit used topographic maps produced in 1967. Outdated maps are also used by the Gendarmerie in the ground security zone in the south of Serbia.

Besides the shortage of specialized maps and other topographic materials, it should be noted that the existing maps and plans are sometimes used with insufficient professional skill. Some maps and plans are of very modest practical value, since they have been designed ad hoc by police personnel of modest inventiveness who design such maps in terms of topography and topic without expert methodology prerequisites.

Competent departments of the Republic of Serbia MoI became aware of the mentioned problems in mid-1990s, but the projects aimed at improving the situation failed to be realized due to lack of funds. The project of introducing GIS technology for the Ministry of the Interior was initiated some ten years ago and has not been completed yet. This means that the police in Serbia still do not have an adequate system of geotopographic security.

Certain segments of the elaborated problem can be partly solved by making police officers familiar with the characteristics and possibilities offered by less known photographic and digital geotopographic materials created using the latest technology of remote sensing. This can be achieved by including such training in the curricula of vocational education and in-service training aimed at professional development in the field of police topography.<sup>13</sup> It should also be accompanied by legal, organizational, and material and technical solutions, which are further discussed in the following section.

## REMOTE SENSING PRODUCTS AS PART OF GEO TOPOGRAPHIC SECURITY FOR POLICE PURPOSES

Remote sensing is a method of collecting and analyzing information about remote objects in geospace with no direct contacts with them.<sup>14</sup> The method implies the existence of electromagnetic radiation aimed at an object which is to be recorded, possibility of reflecting energy from the surface of the object and its being recorded using sensors, transmitting the recorded electromagnetic radiation to the receivers for processing into a digital image and interpretation thereof in order to gather information on the observed object. With respect to construction, the sensors can be photo cameras, multispectral scanners, and radars. In order to ensure that the sensors should register reflected electromagnetic radiation from the surface of the object in the observed geospace, they are placed on ground, air and cosmic platforms.

<sup>12</sup> Milojković, B., (2007). *Савремени геотопографски материјали за потребе полиције – карактеристике и начин коришћења*, БЕЗБЕДНОСТ, год. XIX, бр. 4/07, р. 109.

<sup>13</sup> Milojković, B., (2011). CONTRIBUTION OF POLICE TOPOGRAPHY TO DEVELOPMENT OF HIGHER POLICE EDUCATION IN SERBIA, In *Procesiding, International Scientific Conference "Archibald Reiss Days"*, 03-04.03.2011., Academy of criminalistic and police studies, Belgrade, p. 91.

<sup>14</sup> Илић, А., Милојковић, Б., Секуловић, С., (2009). *САВРЕМЕНЕ ТЕХНОЛОГИЈЕ ЗА ПРИКУПЉАЊЕ И ОБРАДУ ПРОСТОРНИХ ПОДАТАКА*, У: Зборник радова „ОТЕХ 2009“ – Научно-стручни скуп са међународним учешћем из одбрамбених технологија, Београд, 8-9. октобра 2009. године, р. 590.

The paper will focus on presenting the basic characteristics and possibilities offered by the use of remote sensing products with sensors on ground and air platforms, as used in the LIDAR and Pictometry technologies.

LIDAR (Light Detecting and Ranging) is a cheap, fast, and one of the most efficient methods of collecting large amounts of various data in the form of three-dimensional coordinates in geospace. Namely, LIDAR is a system that consists of a number of subsystems – modern technologies for data collection, including: 3D positioning using GNSS (GPS/GLONAS) technology (the position of the sensor is determined by GPS using phase measurements in the relative kinematics mode), inertial technology (IMU – Inertial Measurement Unit, registering the changes of position between two global positioning sessions or precise measurements of changes in direction), laser scanner, and digital photography. Optionally, it is possible to integrate additional sensors, such as, for example, an orthophoto sensor, based on a single shot or an infra-red cameras. The mentioned technological solutions provide the image of a terrain in the form of a very dense concentration of points, known as the ‘point cloud’. Similar to radar technology, instead of using radio waves, LIDAR uses waves of a much shorter wavelength of the electromagnetic spectrum, usually ultraviolet, visible, or near infrared range of 1046  $\mu\text{m}$ .<sup>15</sup> Integrated technologies allow direct measurement of three-dimensional structures and foundations of the terrains day or night, in shadowy or in cloudy conditions (it is not possible to use them in dense fog and in heavy rain), at distances ranging from 1 meter to several thousand metres.

Placed on a stand or a SUV, LIDAR (terrestrial, topographic, bathymetric) is used for recording individual object and smaller parts of the geospace at the distances of 1 to 300 m (building facades, monuments, bridges, tunnels, galleries, landslides, industrial plants, pipelines, dams, etc.) with maximum accuracy of 1-2 mm (Figure 1).



Figure 1. LIDAR installed on a stand or a SUV (Source: Wikipedia)

LIDAR can be installed on a helicopter or an airplane (Figure 2) for capturing narrow strips of geospace, the so-called corridors such as road, railways, waterways, dams, or power lines.

15 Ђурђевић, З., Коларевић, Д., Ивановић, З., Милојковић, Б., (2012). *Примена Географских информационих система у криминалистичком профилисању*, У: Монографији „Криминалистичко профилисање“, Криминалистичко-полицијска академија, Београд, р. 295.

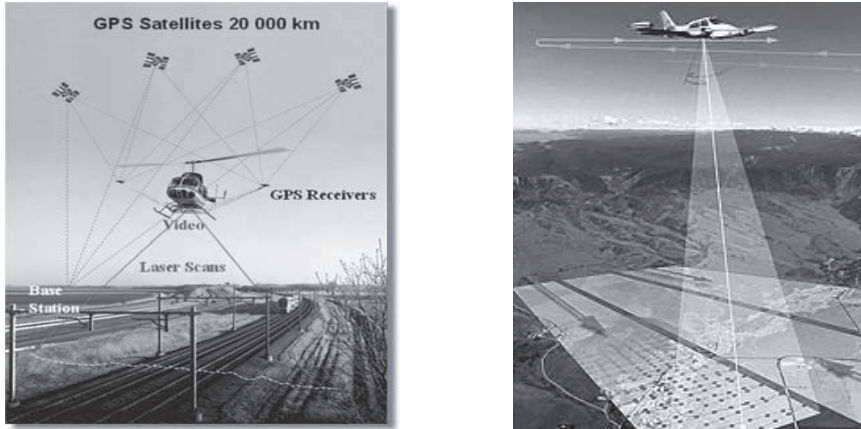


Figure 2. LIDAR installed on a helicopter or a plane  
(Source: Geomatika and RGA)

LIDAR consist of a laser that is fixed and pointed at a mirror which rotates at a high speed. Laser beams are sent towards the Earth and the energy reflected from an obstacle is recorded (e.g. the crown of a tree or a building) and thus provides a cloud of points of known coordinates (Figures 3 and 4). Depending on the make, LIDAR can record a few dozen to a few hundred thousand points per second. If the terrain recording is performed with multiple backscattering (the laser strikes the tree-crown, bounces off, the rest passes to the ground, is reflected once again and LIDAR records different energies), it is possible to find out the height of vegetation, i.e. the height of the tree and the height of the tree-trunk from the topographic surface to the crown, as well as to determine the type of canopy of the forest based on the shape of the tree-crown, which may, for instance, be of importance for assessing the spread of fire or estimating biomass, growing plans, conservation and deforestation.

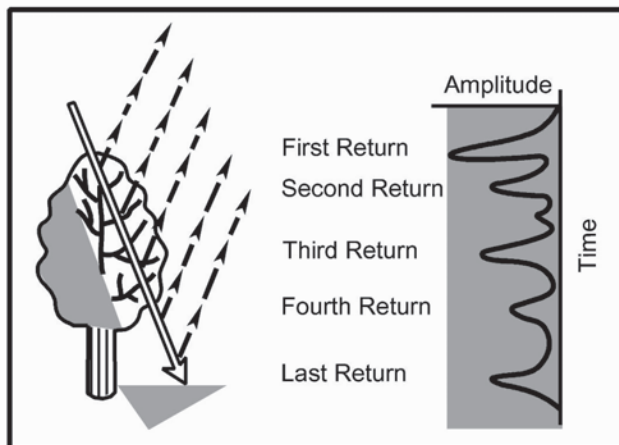


Figure 3. Recording terrain with multiple backscattering (edited by the author)

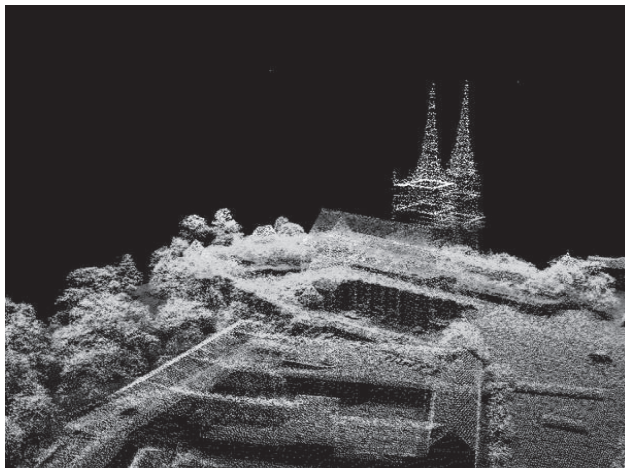


Figure 4. A view of the cloud of points after recording the terrain using the LIDAR system (Source: GEOFOTO)

More precise data can be obtained by flying over the terrain several times and using software for further processing makes it possible to easily remove all unnecessary objects and obtain empty terrain (Figure 5).

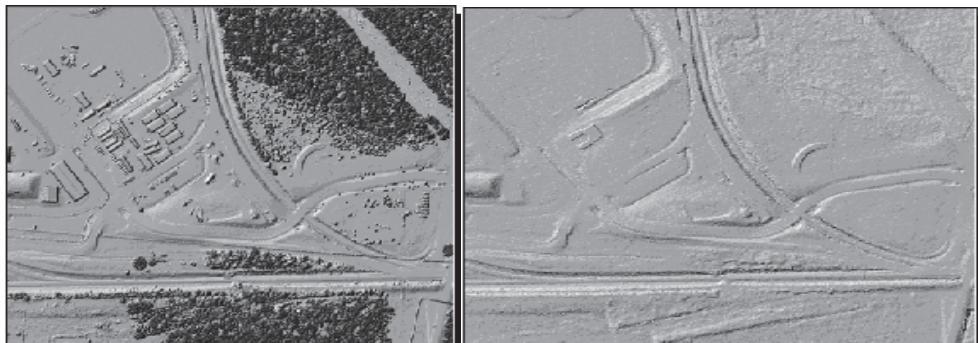


Figure 5. A terrain model obtained by using LIDAR placed on an airplane – the terrain with buildings and vegetation; 'empty terrain'.

Stationary mode LIDAR systems are important for the purpose of investigative activities, searching terrains, for example in the cases of searching for persons and objects in the terrain with lush vegetation and in the facilities of special construction (semi-translucent materials). LIDAR products are also important for visualisation and various analyses of geographic space (Figure 6) and present very important tools in developing a national infrastructure of geospatial data.<sup>16</sup>

16 Милојковић, Б., Млађан, Д., (2012). *NACIONALNA INFRASTRUKTURA GEOPROSTORNIH PODATAKA*, Kultura polisa, posebno izdanje I, godina IX, br. 18, p. 459.

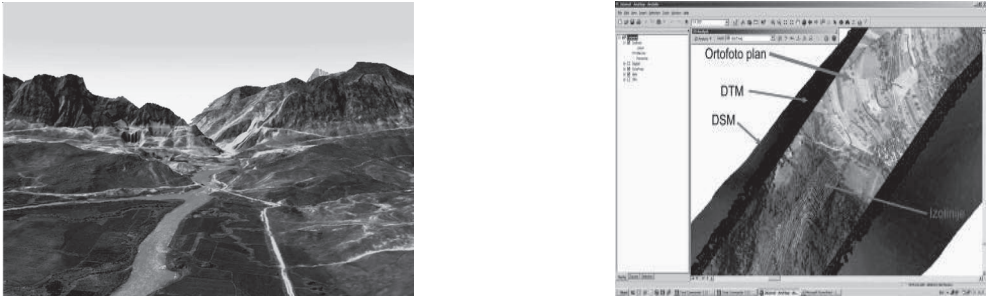


Figure 6. Visualisation and possibilities for using LIDAR products in analyzing geospace  
(Source: GeoGIS Consultants)

**Pictometry** (georeferenced vertical and oblique aerial imaging) is a unique, patent-protected geographic information system based on:

- orthogonal and oblique aerial photo imaging (Figures 7 and 8),
- modern software for presentation and analysis,
- a basis of pictometric shots (> 80 % are images which allow for a simple and complete presentation of an object, whereas orthophoto maps are only one component).



Figure 7. Classic orthophoto provides the view of the terrain from above  
(Source: Geo Info Strategies)



Figure 8. A pictometric slanting image shows facades of the buildings and their height  
(Source: Geo Info Strategies)



Pictometry is currently the cheapest and the fastest way to obtain comprehensive data on the geographic space by using oblique imaging of details in this space recorded from at least 12 different viewpoints, as well as integration with the existing data and GIS systems.

Oblique aerial images are obtained using a digital aerial photogrammetric camera with three sensors. One sensor is vertical, whereas the other two are placed at the angles of 45 degrees to the horizon. The system ensures simultaneous acquisition of vertical and inclined aerial images – one vertical and four images at the angle of 45 degrees to the horizon. The oblique shots are made in the direction of the four cardinal points (Figure 9).

The overlapping of images is ensured which makes it possible to provide 12 images for every detail in geospace from different perspectives.

The position and orientation during recording are determined by processing the recorded data on all the images. The recordings are delivered together with a digital model of the terrain, which be used for measuring coordinates of the points in the field, measuring the object surfaces, measuring the lengths and heights of the objects, determining materials of which the object is made and the number of floors, as well as monitoring changes in geospace (in constructed areas).

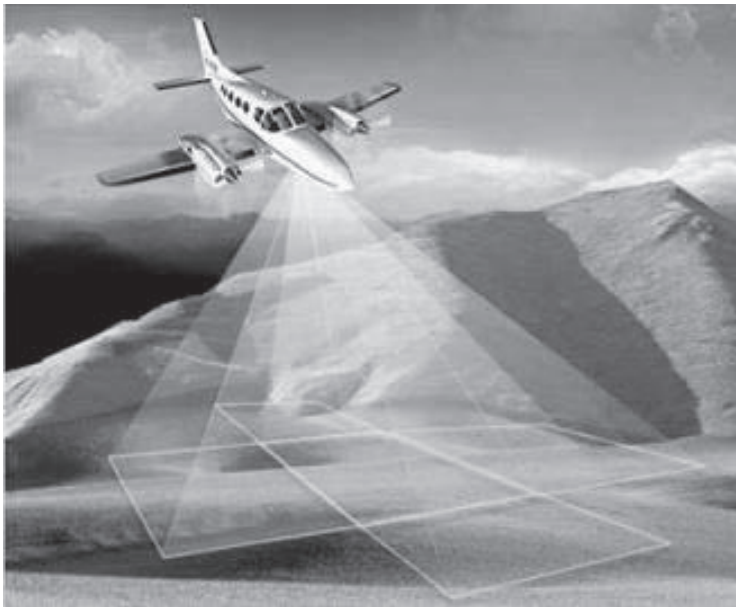


Figure 9. Aerial imaging using Pictometry (Source: Geo Info Strategies)

The directions of recording are similar to traditional photogrammetric recording. The distance between lines is usually 400 m, and the flight altitude is 1000 m. The data are stored on 400 GB 'swappy' discs. The Applanix POS 310 inertial system is used and the camera shuttering is started by signals from GPS at the rate of 5 shots per each 1.5 seconds. The cameras are extremely reliable and have no moveable parts; they are shutterless, planimetric and manufactured by the US company Pictometry®. The recording is performed using the Field Capture Software also developed by Pictometry® and a fully automated system of cameras. It should be pointed out that aerial recording depends on weather conditions.<sup>17</sup>

<sup>17</sup> In 2010 and 2011, the company Geo Info Strategies performed the recording of the township of Kraljevo (180 km<sup>2</sup>) and the city centre of Belgrade (161km<sup>2</sup>). The recording was performed using a helicopter and a new digital aerial photogrammetric camera with the resolution of 6 cm and the obtained data are of a very good quality.

There are three options for viewing the data:

- **Independent software tools EFS (Electronic Field Study)** (Figure 10). The system developed by Pictometry® USA. Images can be integrated with the existing data (GIS, CAD and other spatial data).
- **Within the GIS projects** there are completed Active-X controls developed for: ESRI ArcMap, MapInfo, GeoMedia;
- **Using a web-browser on the Internet/Intranet.**



Figure 10. Independent software tool EFS (Electronic Field Study) for viewing and measurement (Source: Geo Info Strategies)

All the above mentioned systems allow: measuring coordinates, length, height, and size; integration of different sources of geographic data; integration of the address system in order to allow search based on addresses, postal codes or coordinates; exporting images in the jpeg format (Figure 11).



Figure 11. Integration of different sources of geospatial data for the purpose of searching (Source: Geo Info Strategies)

Using the specialized Delta Digitals software for creating digital plans and maps, Pictometry is used in 3D visualisation, and, combined with modern telecommunication technologies, also in the navigation systems (Figure 12).

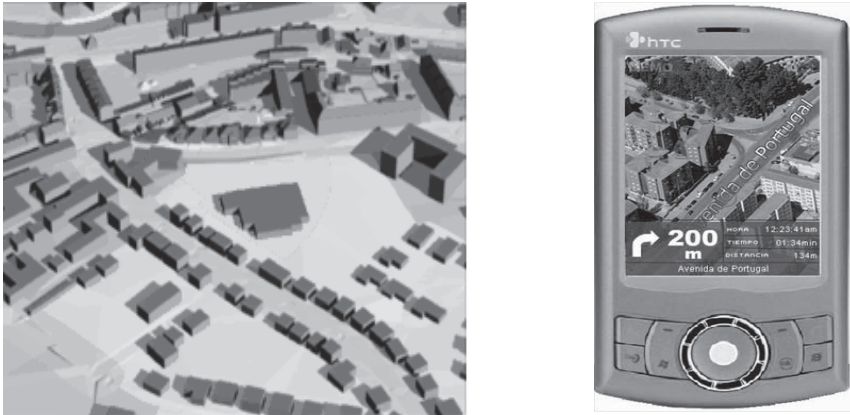


Figure 12. The use of Pictometry in 3D visualisation and navigation systems  
(Source: Geo Info Strategies)

Pictometry allows detection of possibilities for accessing a facility, measuring the height of the facility section through which it can be accessed or evacuated, viewing locations of communal utility equipment of the building (Figure 13).

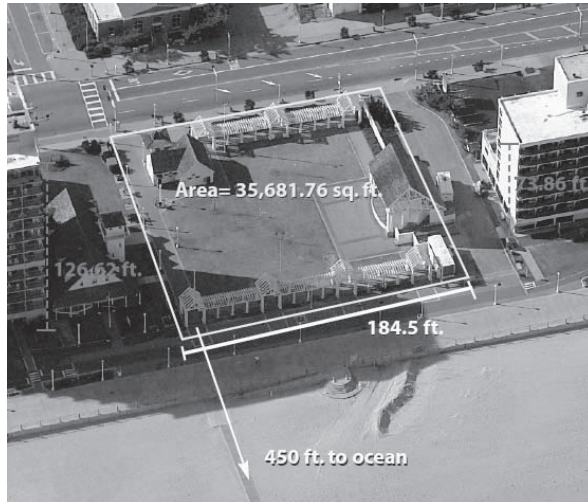


Figure 13. Detection of access possibilities and the entrance to the building;  
determining the performances of the building (Source: Geo Info Strategies)

Pictometry offers possibilities for completing information such as the current view of the location from which the call comes, viewed from different angles; a click of the mouse gives alternative directions of access to the given location. It also contributes to time saving by allowing the deployment of the unit closest to the given location; showing the required address from different directions in order to analyze access and possible evacuation routes; reducing the time needed for action by using previously prepared scenarios for more significant events and objects; providing backup for units in real time by providing

necessary information and finding optimal routes; better coordination of teams in the field; easier detection of obstacles and possible threats to the units deployed in the action; convenience of working in Pictometry in police vehicles equipped with computers and touch screens. Currently, a system is being developed for viewing the positions of persons on the move using the GPS system.

## CONCLUSION

Particularly complex and high-risk security tasks of special police forces demand prompt decision-making, which in turn calls for providing specialized and up-to-date geo-topographic materials that contain reliable data on the geographic space, relevant for the assessment of the situation, i.e. for estimating the impact of favourable and unfavourable geospatial factors in order to select the type of engagement and planning the deployment of special units. The selection of the type is part of the responsibility of the commanding officer, and the initial head start is frequently decisive in complex security, weather, and geospatial conditions, so that the one who takes initiative may benefit from it. This initiative is achieved, at least to some extent, by good quality of geotopographic security in police interventions.

Geotopographic security is a dynamic and continuous research and production activity of the civilian and military geodesic services, which should constantly monitor the changes in the geospace, using contemporary technical solutions and technologies, and, after processing, present them in the form of geotopographic materials, which are to be delivered to their respective users, according to their needs. However, the national police force has not developed its own specialized system of geotopographic security.

The above presented information regarding the state of affairs in the area of geotopographic security and possibilities of using remote sensing products imply the following suggestions for a more holistic solution to the problem of geotopographic security for police purposes, especially their operative lines of work and the units for performing specialized security tasks:

- 1) Identify all state and private subjects engaged in collecting and processing geospatial data;
- 2) Devise a viable framework of legal norms that would provide for all state and private subjects that engage in any kind of geotopographic security to submit a copy of the produced geotopographic materials to the Military Geography Institute, the Republic Geodetic Authority and the competent organizational unit of the Republic of Serbia MoI – IT Management – GIS Department. The framework would ensure mandatory exchange of geotopographic materials among the three institutions with no financial compensation;
- 3) Restructure working assignments in the job description documents so as to bind all lines of the RS MoI employees to engage all police officers who perform routine and special police duties or are in charge or professional in-service training and development, so as to have a minimum of 10 % duties related to collecting geospatial data relevant for the police and updating geotopographic materials in the GIS environment, which are an integral part of the sector security files and plans for deploying special police forces, civil defence units, the fire brigade and rescue units;
- 4) Carry out a pilot project of collecting geospatial data by combining the forces and resources of the RS MoI Helicopter Unit and the Republic Geodetic Authority, focusing on the parts of the national geospace that is of particular importance for the police.

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