UPDATE OF LAND BOOKS: "MODUAT" INTER-COUNTY, FOLLOWING MODIFICATION OF THE ATU LIMIT, AS WELL AS THE COUNTY LIMIT

Dinu BULIGA¹, Adrian ŞMULEAC^{1,2}

e-mail: adriansmuleac.as@gmail.com

¹Banat's University of Agricultural Sciences and Veterinary Medicine"King Mihai I of Romania" from Timisoara, 300645, 119, Calea Aradului, Timisoara, Romania e-mail: adriansmuleac.as@gmail.com

² Politechnica University of Timisoara, Hydrotechnical Department Construction Engineering Faculty George Enescu no. 1A, Romania

Abstract: Following the modification of the boundaries of the territorial administrative units (UAT), but also of the county limits, the land books are influenced on a case-by-case basis, so that it is updated through documentation. The present work was done for the purpose of inscribing the C1 construction -"Wind power plant" in a book land affected by the UAT limit change; on the building CFE 30157 outside the built-up area of Toplet, UAT Toplet, following the measurements and the office operations, a documentation on interrupted flow, on service code: MODUAT with deposit at BCPI Caransebes / OCPI Caras-Severin, in order to update according to the new UAT limits, building CFE 30157 Toplet, UAT Toplet passing Orsova (out of town), UAT Orsova, according to the limits of E-Terra III.The "MODUAT" documentation obtains both the location and delimitation plan (PAD) targeted by the Office of cadaster and real estate advertising Caras-Severin on the outside the built-up area of Orsova, UAT Orsova (which belongs to OCPI Mehedinti). By using this PAD, the documentation will be submitted on the code "2.1.1 - First real estate registration" + "2.6.1 - Construction registration" at BCPI Orsova / OCPI Mehedinti, containing a specification in the technical memory that the building is also affected by the modification of the UAT limit. The proof is the PAD endorsed by OCPI Caras-Severin. As a result, the cadastral inspector allocates a new cadastral number and a new land book number of the building "CFE 30157 Toplet, UAT Toplet", namely CFE 54023 outside the built-up area of Orsova, UAT Orsova and also inscribes in the new land book the building C1-54023 – "Wind power plant", thus issuing: End of admission of land book CFE 54023 Orsova, UAT Orsova, Information extract of the land book CFE 54023 Orsova, UAT Orsova as well as the Plan of location and delimitation of the building CFE 54023 Orsova, UAT Orsova.In order to avoid double evidence, following the allocation of the new cadastral number and the new land book number on UAT Orsova, by BCPI Orsova / OCPI Mehedinti, according to UAT and county limits based on E-Terra III data, the beneficiary of the documentation of "MODUAT", respectively "First real estate registration" request to terminate the land book no. 30157 Toplet, UAT Toplet at BCPI Caransebes on the code "2.4.1 - Deletions" + the code "2.5.1M - Material error correction". The application will display the following: End of book admission land CFE 54023 Orsova; the site and delimitation plan (PAD) targeted by the Cadastre Office and real estate advertising Caras-Severin on the built-up area outside Orsova, UAT Orsova; the site plan and delimitation (PAD) targeted by the Office of cadaster and real estate advertising Mehedinti on Orsova, UAT Orsova as well as a copy after the identity document, following that at the term assigned to the request the chief registrar should order the cessation of land book no. 30157 Toplet, UAT Toplet.

Key words: UAT, MODUAT, First real estate registration, Construction registration

INTRODUCTION

A property guaranteed by law, a correct, transparent and easy to manage record is the European intention. Achieving such an aspiration involves political will, financial effort and concerted actions of several state institutions (HERBEI, M. V. ET ALL., 2010, 2016).

The National Agency for Cadaster and Real Estate Advertising has a defining role in identifying and registering real estate and in creating the real basis for valuing, taxing and guaranteeing properties, thus contributing to the security of real estate transactions. The success of the Agency presupposes that the political, economic, administrative decisions create

a structured and coherent conceptual and action framework, with the main objective being the development of the unitary cadaster and land book system (SMULEAC, A. ET ALL., 2012, 2017).

A fully functional land registry and land registry system is the key element in the economic development process (\$MULEAC, A. ET ALL., 2015), securing private property rights over buildings. It serves as a fundamental mechanism for the registration and transfer of real estate assets from one entity to another, establishes and records the real rights and provides information for mortgages and financial development. This is an optimal operating environment for all the activities of the real estate market. Also, information on real estate is the foundation of territorial development, as well as for the creation of an infrastructure of territorial planning and urban planning policies (\$MULEAC, L., \$TEFANCA, L. ET ALL., 2017).

The main normative act for the Integrated Cadaster and Real Estate Advertising System in Romania is Law no. 7 of March 13, 1996. The normative framework was fundamentally changed by the Government Emergency Ordinance no.41 / 2004 (GEO), which amended this law regarding the structure of the land book offices of the courts, integrating them into within the newly established National Agency, creating 42 cadaster and real estate advertising offices (OCPI), subordinated to ANCPI, in each county and in Bucharest.

Starting with 2006 in our country, the e-Terra system is implemented (the integrated information system for cadaster and real estate advertising through which ANCPI manages the cadastral register and land book of Romania).

MATERIALS AND METHODS

The kinematic measurements were made in the outskirts of Orsova with the Leica 1200 series GPS equipment (ŞMULEAC, L. ET ALL., (3), which is a device that contains a multitude of applications (NEX, F.; REMONDINO, F. (2014). The 1200 series GPS can be used either as a reference station or as a rover for both static and kinematic (RTK) measurements (SIMON M. ET ALL., 2018).



In the work for the GPS measurements, I used the static method, and the data acquisition was performed at 5s, where I activated the Long Raw Observation function (5s). The metering engine used is the SmartTrack type which acquires satellites in seconds. The antennas used are dual frequency type: AX1202GG and ATX1230 GG with SmartTrack and supports GLONASS, GPS and GALILEO signals. The raw data obtained can be exported directly from the GPS1200 receiver, but for the present work, the data were downloaded using the Leica Geo Office Combined program, namely RAW data. The GPS reference system is WGS 84 (World Geodetic System).

In order to realize the postprocessing of the data obtained from the field (by parking with the GPS equipment on the concrete terminals), the RINNEX data from the Permanent

Stations had to be acquired as well, also at 5 seconds. Together with the data acquired before, I did post-processing, obtaining the WGS 1984 of stationary terminals coordinates on the field.

This GPS 1200 equipment can also be used in addition to the classic topographic surveys (\$MULEAC, L. ET ALL., 2016) to the drawing, monitoring, and seismic measurements. The 1200 series GPS receivers are designed to work in the toughest conditions and can withstand falls and vibrations, operate during rain and snow at temperatures between - 390C and + 640C.

The raw data transformation (RAW DATA) from the ETRS89 system into the STEREO'70 system was performed in the framework of the TransDatRO program, after which the points in AutoCAD were reported using the TopoLT program. The calculation of the coordinates from the ETRS'89 reference system in the system Stereografic'70 was made with the software TransDat 4.01 produced by ANCPI.

The permanent GNSS stations from which the RINNEX data was operated at 5s are: Drobeta Turnu Severin, Resita and Făget (table1).

Permanent GNSS stations used in the post-processing

Table 1

COORDONATE ELIPSOIDALE – ETRS89/ STEREO `70				
Denumire Stație permanenta	Clasa	B[m]	L[m]	He[m]
Resita (RESI)	A	45° 17' / 426168 N	21° 53' / 256908 E	256 m
Faget (FAGE)	A	45° 51' / 487750 N	22° 10' / 280960 E	216 m
Drobeta Turnu- Severin (DRTS)	A	44° 37' / 350251 N	22° 38' / 312438 E	90 m



Figure.1 Land Book 30157 on UAT Toplet, to be updated on UAT Orsova

After performing and processing the measurements, I passed the preparation of the documentation on interrupted flow, on the service code: MODUAT with submission to BCPI Caransebes / OCPI Caras-Severin, in order to update according to the new limits of UAT, the building CFE 30157 Toplet, UAT Toplet passing on Orsova (out of town), UAT Orsova, according to the limits of E-Terra III (figure 1).

Following the submission of the documentation on the code "MODUAT", we obtain the location and delimitation plan (PAD) targeted by the Office of cadaster (\$MULEAC, A. ET ALL., 2016), and real estate advertising on the outskirts of Orsova (figure 2), UAT Orsova (belonging to OCPI Mehedinti).

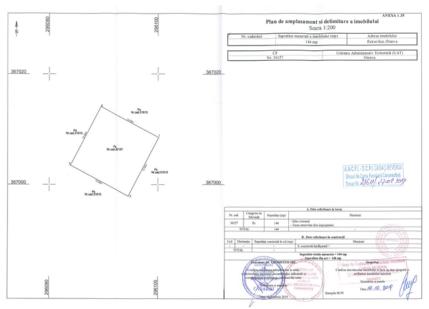


Figure.2 PAD with OCPI Caras-Severin visa on UAT Orsova

Once I obtained the PAD targeted by the Office of cadastral and real estate advertising Caras-Severin on the Orsova outskirts, UAT Orsova (belonging to OCPI Mehedinti), I went to step no.3, namely the preparation of the documentation on the code "2.1. 1 - The first registration of the building "+" 2.6.1- Registration of constructions" submitted to BCPI Orsova / OCPI Mehedinti, with the specification in the technical memory of the fact that the building is also affected by the modification of the UAT limit, the proof being the PAD endorsed by OCPI Caras Severin.

The cadastral inspector to whom the documentation for approval is allocated allocates a new cadastral number and a new land book number of the building "CFE 30157 Toplet, UAT Toplet", namely CFE 54023 extravilan Orsova, UAT Orsova and also inscribes in the new land book the building C1 -54023 - "Wind power plant", issuing as follows: Completion of the admission of the CFE 54023 Orsova, UAT Orsova land book, CFE 54023 Orsova land information information extract, Orsova UAT as well as the location and delimitation plan of the CFE 54023 Orsova building, UAT Orsova (figure 3 and 4).



Figure.3 Land Book 54023 on UAT Orsova, UAT Orsova

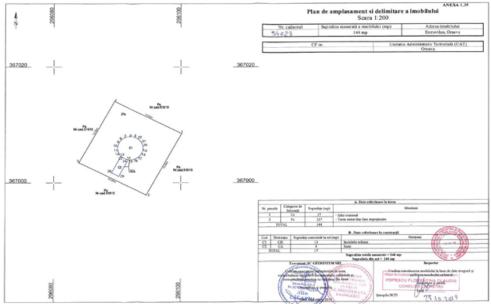


Figure.4 PAD with OCPI Mehedinti visa on UAT Orsova, where the buildings appear as well

RESULTS AND DISCUSSIONS

Following the allocation of the new cadastral number and the new land book number on UAT Orsova, by BCPI Orsova / OCPI Mehedinti, and according to the limits of UAT and county in the E-Terra III database, the beneficiary of the documentation of "MODUAT", respectively "The first real estate registration "submits a request for the cessation of the land book no. 30157 Toplet, UAT Toplet at BCPI Caransebes on the code" 2.4.1-Radiere "+ the code" 2.5.1M - Material error correction", attaching the application: End of admission of the land book CFE 54023 Orsova; the plan of location and delimitation (PAD) targeted by the Office of cadastre and real estate advertising Caras-Severin on the outskirts of Orsova, UAT Orsova; the plan of location and delimitation (PAD) targeted by the Office of cadastral and real estate advertising Mehedinti on the outskirts of Orsova, UAT Orsova as well as a copy after the identity document, following that at the term assigned to the request the head registrar will order the cessation of the land book no. 30157 Toplet, UAT Toplet (figure 5 and 6).



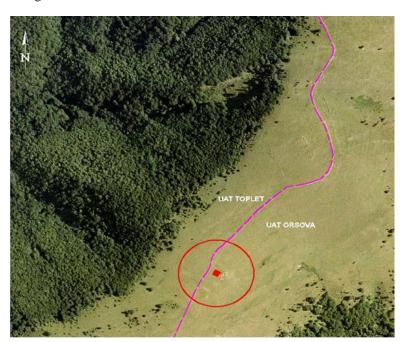
Figure.5 Conclusion of CF issued by OCPI Mehedinti on UAT Orsova

Figure.6 Note issued by OCPI Mehedinti for the cessation of CF sheet 30157 UAT Toplet

CONCLUSIONS

With the modifications and updates of the e-Terra system regarding the UAT limits, as well as the county limits, the land books that are located in their proximity are influenced as well. Eventually, the land books must be updated at the request of the owners, as the case may be. In the present case we can specify the following:

- By the documentation on the code "MODUAT" we obtain the site and delimitation plan (PAD) targeted by the Office of cadastre and real estate advertising Caras-Severin on the outskirts of Orsova, UAT Orsova;
- By the documentation on the code "2.1.1 First registration of the building" + "2.6.1- Registration of constructions" submitted to BCPI Orsova / OCPI Mehedinti,, the following are obtained:
 - a. Conclusion of the admission of the land book CFE 54023 Orsova;
 - b. The information extract of the land book CFE 54023 Orsova
 - c. Placement and delimitation plan (PAD) targeted by the Office of cadastre and real estate advertising Mehedinti on the outskirts of Orsova, UAT Orsova;
- By submitting the application on the code "2.4.1-Clearing" + the code "2.5.1M Material error correction" at BCPI Caransebes, the sheet of CF 30157 UAT Toplet is stopped, avoiding double evidence



BIBLIOGRAPHY

- HERBEI, M. V., CIOLAC, V., ŞMULEAC, A., NISTOR, E., & CIOLAC, L. (2010), Georeferencing of topographical maps using the software ARCGIS. Research Journal of Agricultural Science, 42(3), 595-606.
- HERBEI, M. V., HERBEI, R., SMULEAC, L., & SALAGEAN, T. (2016). Using Remote Sensing Techniques in Environmental Management. Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca. Agriculture, 73(2), 230-237.
- HERBEI, M. V., POPESCU, C. A., BERTICI, R., SMULEAC, A., & POPESCU, G. (2016). Processing and Use of Satellite Images in Order to Extract Useful Information in Precision Agriculture. Bulletin of University of Agricultural Sciences and Veterinary Medicine

- Cluj-Napoca. Agriculture, 73(2), 238-246.
- NEX, F.; REMONDINO, F. (2014), UAV for 3D mapping applications: A review. Appl. Geomat. 2014
- SIMON M., LOREDANA COPACEAN, LUMINITA COJOCARIU (2018), U.A.V. technology for the detection of spatio-temporal changes of the useful area for forage of grassland, Research Journal of Agriculture Science, 50(4), 2018, pp. 332-341
- SMULEAC, A., HERBEI, M., & POPESCU, C. (2012). Creating the digital terrain model of the usamvb area using modern technology. Research Journal of Agricultural Science, 44(3), 282-287.
- ŞMULEAC, A., NEMEŞ, I., CREȚAN, I. A., NEMEŞ, N. S., & ŞMULEAC, L. (2017, OCTOBER). Comparative Study of the Volumetric Methods Calculation Using GNSS Measurements. In IOP Conference Series: Materials Science and Engineering (Vol. 245, No. 5, p. 052020). IOP Publishing.
- ŞMULEAC, A., POPESCU, C., BĂRLIBA, L., CIOLAC, V., & HERBEI, M. (2017). Using the GNSS technology tothicken geodesic network in Secaş, Timiş county, Romania. Research Journal of Agricultural Science, 49(3).
- ŞMULEAC, A., POPESCU, C., IMBREA, F., POPESCU, G., & ŞMULEAC, L. (2016), Topographic and cadastre works for the establishment of an animal farm with NPRD funds, measure 121, Vărădia, Caraş-Severin county, Romania. International Multidisciplinary Scientific GeoConference: SGEM: Surveying Geology & mining Ecology Management, 3, 685-692.
- ŞMULEAC, A., POPESCU, C., ŞMULEAC, L., & PEPTAN, C. A. (2015). Processing Lidar Information To Increase Precision In Field Numerical Models. Research Journal of Agricultural Science, 47(2).
- ŞMULEAC, L., NIŢĂ, S., IENCIU, A., ŞMULEAC, A., & DANIEL, D. (2016). Topographic survey for the monitoring of the impact of the BRUA/ROHUAT pipe on water flow in the irrigation system at Fântânele, Arad County, Romania. International Multidisciplinary Scientific GeoConference: SGEM: Surveying Geology & mining Ecology Management, 3, 333-340.
- ŞMULEAC, L., POPESCU, C., SMULEAC, A., & PIŢIGA, C. (3). D land modelling using GPS technology in Bencecu de Sus, Timis Countz, Romania. Research Journal of Agricultural Science, 46(2), 2066-1843.
- ŞMULEAC, L., ŞTEFANCA, L., IENCIU, A., BERTICI, R., & ŞMULEAC, A. (2017). Influence of anthropogenic activities on Mures River water quality. Research Journal of Agricultural Science, 49(3).
- ȘMULEAC, A., HERBEI, M., POPESCU C.A., (2018). Metode moderne de achiziție și prelucrare a datelor topogeodezice, Ed. Mirton, Timișoara, ISBN 978-973-52-1840-9.
- Herbei, M.V., Şmuleac, A., Popescu C.A., (2018). Cartografie digitală și mobile GIS, Ed. Mirton, Timișoara, ISBN 978-973-52-1839-3. Strategies of ANCPI 2013-2017

Manual E - Terra_20160410_v3

ODG 700/2014 - actualized in 2019