Department of Remote Sensing of the Earth, Space Research Institute, Bulgarian Academy of Sciences (SRI-BAS)

Remote Sensing Education at Bulgarian University and High School Education

State of the Art, Perspectives and Significance

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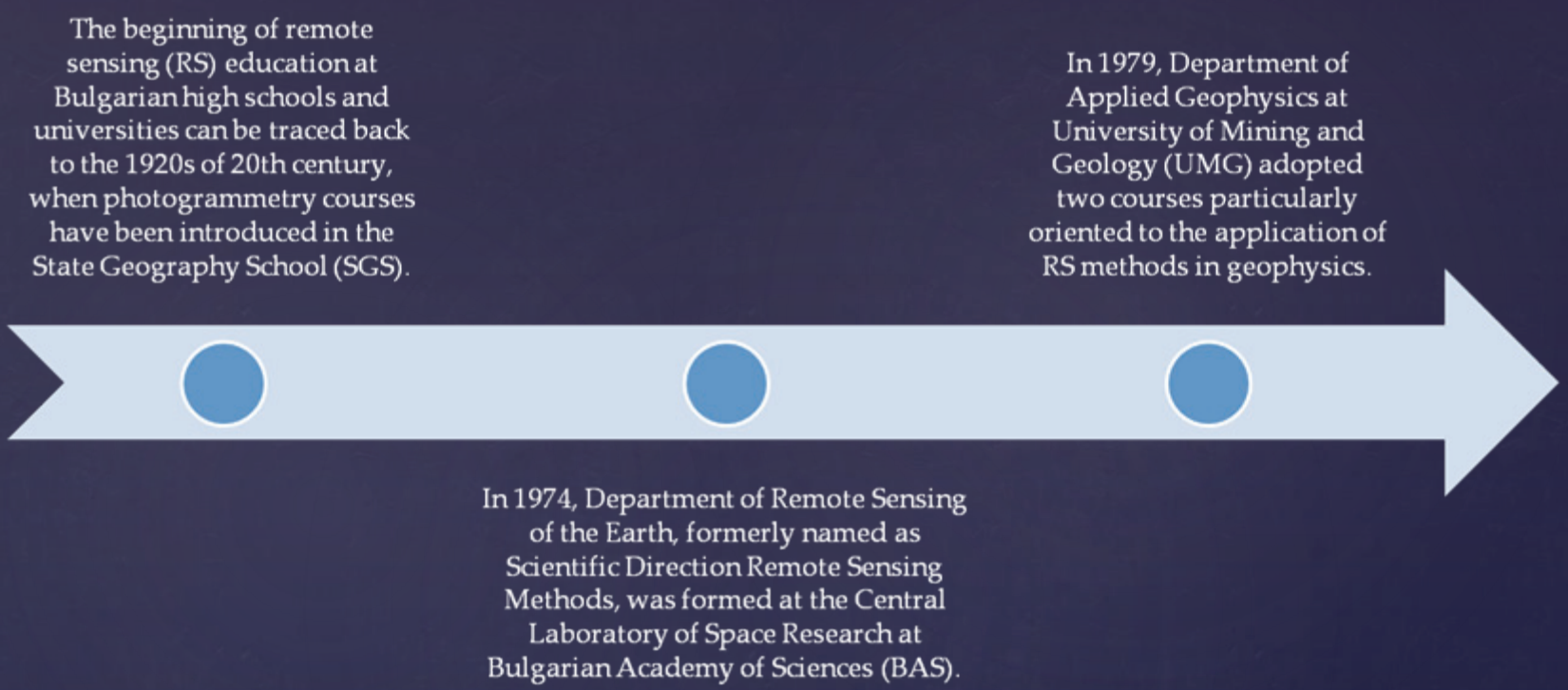
30 th EARSeL Symposium Remote Sensing for Science, Education, and Natural and Cultural Heritage
UNESCO, Paris (France), 31 May – 3 June 2010

Major events in RS education in Bulgaria



Introduction

Sofia University *St. Kliment Ohridski*

- RS lectures have been taught at M.Sc. programmes in Geomorphology, Physical Geography and Landscape Ecology, Climatology and Hydrology, Planning and Managing of the Territorial Systems and Applied Geochemistry, GIS and Cartography since 1998.
- At Sofia University has been established University Centre for Aerospace Observation, which is aimed to serve as scientific-educational and application infrastructure of the university.

- RS are attended annually by average of 18 students. The courses curriculum is represented by one textbook: *Remote sensing methods in geophysics and geology* with authors K. Mishev and K. Gugov. Since the introduction of the two courses in *Applied geophysics*, there are 30 students, who did defend their masters by using RS and DIP methods.

Department of *Applied Geophysics*, University of Mining and Geology *St. Ivan Rilski* (UMG)

- offers to its students courses related to remote sensing curriculum in: *Topographic geomorphology, Photogrammetry, Cartography, Cartography methods in economy and ecology, Automated cartography, Engineer photogrammetry, Remote Sensing Methods and Digital Image Processing, Geographic Information Systems*.
- In 2006, a new education plan adopted digital image processing (DIP) as a part of core curriculum.

the University of Architecture, Civil Engineering and Geodesy (UACEG)

- First course in *Geodesy and Remote Sensing* started in the beginning of 1990s . In 1992 the course changed its name to: *Photogrammetry and Remote Sensing*.
- The course is read in three of the B.Sc. programmes, such as: *Forestry*, *Ecology and Environment Protection* and *Landscape architecture*.

University of Forestry (UF)

- New Bulgarian University (NBU) is the foremost private university in Bulgaria.
- It offers RS courses in the application fields of geophysics, disaster prevention and nature resources conservation and preservation.

Private Universities

- Lectures in remote sensing (RS) applications have been taught since 1998 at National High School of Mathematics and Nature *Acad. Lubomir Chakalov* (NHSMN).
- Target groups are geography classes, which specialize in studying natural sciences and geographic science.
- The lectures are carried out by using software donated by ESRI Bulgaria – ArcView 3.x and MicroMSI.

High-school Education

Space Research Institute (SRI-BAS) and Institute of Solar-Terrestrial Influences at Bulgarian Academy of Sciences (BAS)

- Both institutes and the Department of Remote Sensing of the Earth at SRI-BAS in particular have educated more than 30 Ph.D. students since 1974, i.e. the year of its foundation.
- First Bulgarian astronaut, Georgi Ivanov has been awarded with his Ph.D. in RS at SRI-BAS.

- Better structure of educational curricula;
- Optimization of the workload of the university lecturers, professors and staff;
- With the rising importance of geo-informatics in a world scale for solving various global problems the role of remote sensing education has greatly increased its significance;
- Wider application of RS in forestry, agriculture, city and urban planning and disaster prevention;
- To provide for development of Earth Observation (EO) platform and The Global Monitoring for Environment and Security (GMES) initiative on a European scale, more and better qualified GIS and RS specialists are needed.

Perspectives and Significance

Acknowledgements

This work was accomplished with the financial support of the framework Operational Program *Human Resources Development* 2008-2010 of the Bulgarian Ministry of Education, Youth and Science (MEYS) funded by the European Social Fund (ESF); project contract BG051PO001/07/3.3-02/63/170608 *Enhancing the Qualification and Retaining a Young Scholars' Team in the Field of Aerospace Technologies as a Prerequisite for Monitoring and Preservation of the Environment and Prevention of Damages Caused by Natural Disasters*, with a beneficiary Res. Fell. Lachezar Filchev, Ph.D. student.

Thank you for your attention