

# Marcela Doubková, M.A.

ADDRESS (Work)

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## OBJECTIVE

To obtain a challenging research position in Remote Sensing, Geographic Information Systems or Cartography with applications in environmental science

## WORK EXPERIENCE

- Institute of Photogrammetry and Remote Sensing, Technical University in Vienna (TUWIEN)  
**GIS and Radar Analyst, 2007 - present**
  - studied the hydrological processes in soils at various scales by use of active microwave sensors
  - contributed to the development of operational soil moisture products for the Southern African Development Community (part of the TIGER initiative)
- Geographic Information Science Center of Excellence (GIScCE), South Dakota State University  
**Geospatial Analyst, 2006 - 2007**
  - contributed to the NASA LCLUC project "Evaluating the effects of institutional change on regional hydrometeorology in Eurasian semi-arid grain belt"
  - acquired, processed, and analyzed data from the MODIS, AVHRR, and AMSR-E sensors
  - served as a technical support for graduate students at GIScCE
- Geographic Information Science Center of Excellence (GIScCE), SDSU  
**Visiting Scientist (Advisor – Geoffrey M. Henebry, Ph. D., C.S.E.), Spring 2006**
  - developed algorithms for processing, analyzing and visualizing geospatial data
  - studied the hydrological processes of land-atmospheric interaction by use of passive microwave and optical data
- Center for Advanced Land Management Information Technologies (CALMIT), University of Nebraska-Lincoln  
**Graduate Research Assistant (Advisor – Geoffrey M. Henebry, Ph. D., C.S.E.), 2004 - 2006**
  - employed in the research project "Sand Hills Biocomplexity"
  - used the geospatial technologies to study the impact of environmental change on grasslands
  - completed field work associated with collecting and analyzing spectroradiometry data
- U.S. Geological Survey, Water Resources, Lincoln, NE  
**GIS technician, Summer 2004**
  - conducted data manipulation and production of associated GIS products using ArcInfo
- KEMAT (sand mining), Geological Department, Cheb, Czech Republic  
**Support technician, July 2000**
  - used Total station (TPS) for mapping potential mining sites

## EDUCATIONAL BACKGROUND

**M.A. in Geography**

University of Nebraska-Lincoln

**Specialization:** Remote Sensing, GIS and Cartography

**2004 - 2006**

**GPA: 4.00**

**Paul Robitschek Scholarship Exchange Program at UNL**

University of Nebraska-Lincoln

**Specialization:** Remote Sensing, GIS and Cartography

**2003 - 2004**

**GPA: 3.85**

**Cartography and Geoinformatics program**

Charles University in Prague, Czech Republic, Department of Geography

**2000 - 2004**

## INTERNET/COMPUTER SKILLS

- *Computer Languages & Operating Systems:* IDL, Html, Microsoft Windows
- *GIS:* ArcGIS (excellent knowledge of Arc Scene modul), Arcview
- *Remote Sensing:* ENVI, Imagine
- *Cartography:* Surfer, MapInfo, Adobe Illustrator, Photoshop
- *Web software:* Dreamweaver MX, Homesite, FrontPage

## PUBLICATIONS

- **Doubková, M.**, Henebry, G. M., 2006. Synergistic use of AMSR-E and MODIS data for understanding land surface phenology: a case study from grasslands of Great Plains. *Digest of IGARSS 2006, Denver, CO.*
- **Doubková, M.**, Henebry, G. M. ,2005. Assessing land surface dynamics across the Nebraska Sand Hills using Advanced Microwave Scanning Radiometer (AMSR-E) data products. *In Proceedings of ASPRS conference, Sioux Fall, South Dakota, October 23 – 27, 2005.*

## POSTER AND PRESENTATIONS

- Henebry, G. M. and **Doubková M.**, 2007. Land surface phenologies sensed by cooler earthlight. In: (RGH Bunce, RHG Jongman, L Hojas, and S Weel, eds.) *25 Years of Landscape Ecology: Science Principles in Practice. Proceedings of the 7<sup>th</sup> IALE World Congress 8-12* July. Wageningen, The Netherlands. IALE Publication series 4, pp 1071-1072, volume 2.
- Henebry, G. M., **Doubková, M.**, 2006. Complex land surface phenologies of moisture status. *AGU conference, San Francisco, California, December 11 - 15, 2006.* (talk)
- **Doubková, M.**, Henebry, G. M., 2006. MODIS and AMSR-E Vegetation Indices for Phenology Studies in the Grain Belt of Central Euroasia. *AGU conference, San Francisco, California, December 11 - 15, 2006.* (poster)
- **Doubková, M.**, Henebry, G. M., 2006. Passive Microwave products can reveal moisture stress in Great Plains Landscapes. *AAG (Joint Meeting of the Great Plain-Rocky Mountain Division and West Lake Division) 2006, Lincoln, Nebraska, October 5 - 7, 2006.* (poster)
- Henebry, G. M., **Doubková, M.**, 2006. Viewing land surface dynamics at LTER sites using cooler earthlight. *Long-Term Ecological Research (LTER) Network 2006, Estes Park, Colorado, September 20-23.* (poster)
- **Doubková, M.**, Henebry, G. M., 2006. Synergistic use of AMSR-E and MODIS data for understanding grassland land surface phenology. *IGARSS 2006, Denver, Colorado, July 30 – August 4, 2006.* (poster)
- **Doubková, M.**, Henebry, G. M., 2006. Sensitivity of the AMSR-E Vegetation Water Content product to precipitation events and mid-season dry spells. *2006 Western South Dakota Hydrology Conference, Rapid City, South Dakota, April 18, 2006.* (talk)
- **Doubková, M.**, Henebry, G. M., 2006. Synergistic use of AMSR-E and MODIS data for understanding land surface phenology: a case study from grasslands of Great Plains. *Annual South Dakota State Geography Convention, Brookings, South Dakota, April 6 – 7, 2006.* (talk)
- **Doubková, M.**, Henebry, G. M., 2005. Synergistic use of AMSR-E and MODIS data for understanding land surface phenology: a case study from grasslands of Great Plains. *AGU conference, San Francisco, California, December 5 - 9, 2005.* (poster)
- **Doubková, M.**, Henebry, G. M., 2005. Assessing land surface dynamics across the Nebraska Sand Hills using Advanced Microwave Scanning Radiometer (AMSR-E) data products. *ASPRS conference, Sioux Fall, South Dakota, October 23 – 27, 2005.* (poster)

## LANGUAGE SKILLS

- Fluent in English, Czech, and German

## HONORS

- Awarded Certificate of High Scholarship - high scholastic achievement (\$250) **March 04**
- Awarded Paul Robitschek Scholarship, UNL (\$20,000) **2003 – 2004**

## **ACTIVITIES**

- Member of the EXPANDING HARMONY studio Modern Dance group **2006**
- **Webmaster:** Sand Hills Biocomplexity Project (<http://sandhills-biocomplexity.unl.edu>), CERSMA UNL Website (<http://calmit.unl.edu/cersma>) **2003 - 2006**
- **Organizer** of “Czech movies at UNL” (Czech Komensky Club) **2004 -2005**
- Member of UNL Rowing Team **2003 - 2004**
- Member of Academic Jazz Band (flautist), Cheb, Czech Republic **2000 – 2003**
- Camp counselor: International Music Camp for Youth, Horní Jelení, Czech Republic **July 2000**

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

- Institute of Electrical and Electronics Engineers (IEEE), student member since 2005
- Member of Gamma Theta Upsilon (GTU) – international honor society in Geography, student member since 2005
- American Geophysical Union (AGU), student member since 2004

## ***REFERENCES:***

### **Dr. GEOFFREY M. HENEBRY**

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Science Center of Excellence (GIScCE)  
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### **Dr. JAMES W. MERCHANT, JR.**

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### **Dr. ANATOLY GITELSON**

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