

Name: Dr. Helmut Kraenzle

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Position: Professor

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Research and Related Activities:

Since 2005, Organizing and Hosting the Shenandoah Valley GIS Users Group

Funded Grants and Projects

In the last sixteen years at James Madison University years I was the principal investigator (PI), Co-PI or project director of 25 grants or projects. More than 125 students have been involved in these grants, and the total value of all projects was more than \$1,030,000. I was the 2002 recipient of the College of Integrated Science and Technology Madison Scholar Award for long-term excellence in research.

Early Childhood Needs Assessment and Fiscal Mapping

Sponsor: Virginia Department of Social Services, \$400,000 (PI Dr. Teresa Harris, Co-PI's Dr. Helmut Kraenzle, Dr. Susan Barnes, Dr. John Almarode)

Global Positioning in Humanitarian Mine Action: Users Handbook

Sponsor: The Geneva International Centre for Humanitarian Demining, \$11,000 (CHF 10,000), (PI Dr. Ken Rutherford, Co-PI Dr. Helmut Kraenzle).

Mapping the Current and Potential Distribution of Red Spruce (*Picea Rubens*) in Virginia: Implications for the Restoration and Degraded High Elevation Habitat, 2009

Sponsor: James Madison University, College of Integrated Science and Technology, \$1,000 (Co-PI with Dr. Zack Bortolot and Dr. Heather Griscom)

Archaeological Advisor II Grant, 2008-2009

Sponsor: Shenandoah National Park, Virginia, \$25,000 (PI Dr. Helmut Kraenzle, Co-PI Dr. Carole Nash)

Open Source Geographic Information System Learning Module, 2008-2009

Sponsor: James Madison University, College of Integrated Science and Technology, \$4,000

Open Source Geographic Information System for Simulating Container Movement (GISSCM), 2007

Sponsor: Institute for Infrastructure and Information Assurance, James Madison University, \$8,861

Geographic Information System for Simulating Container Movement, 2004-2005

Sponsor: Institute for Infrastructure and Information Assurance, James Madison University, \$48,431

GIS Support for the Southeast Europe Mapping Initiative, 2003

Sponsor: US Department of State, \$53,000

Spatial Information Clearinghouse, 2003-2004

Sponsor: US Department of State, \$83,000

GIS Support for the SE Europe Mapping Initiative, 2002

Sponsor: US Department of State, \$46,000

Spatial Information Clearinghouse, 2002

Sponsor: US Department of State, \$54,000

Expand and Enhance the Clearinghouse of GIS Spatial Data, 2000-2001

Sponsor: US Department of Defense, Defense Security Cooperation Agency, \$8,000

Implementing/Expanding the Clearinghouse of GIS Spatial Data, 1999-2000

Sponsor: US Department of Defense, Defense Security Cooperation Agency, \$26,500

Developing a GIS for the Office on Children and Youth, 1999-2000

Sponsor: Office of Children and Youth, Harrisonburg and Rockingham County, \$2,000

Shenandoah Valley Battlefields National Historic District Amendment, 1999-2000

Sponsor: US Department of Interior, \$21,750

Feasibility Study to Develop a Clearinghouse for Demining Spatial Data, 1998-2000

Sponsor: US Department of Defense, Defense Security Cooperation Agency, \$52,200

GIS Course Development for the Center for Security Studies and Conflict Research in Zurich, Switzerland, 1998-1999

Sponsor: Center for Security Studies and Conflict Research, Zurich, Switzerland, \$1,395

GIS Prototype Development for the Center for Security Studies and Conflict Research in Zurich, Switzerland, 1998-1999

Sponsor: Center for Security Studies and Conflict Research, Zurich, Switzerland, \$14,380

GIS Consulting Report for the Center for Security Studies and Conflict Research in Zurich, Switzerland, 1998-1999

Sponsor: Center for Security Studies and Conflict Research, Zurich, Switzerland, \$3,000

National Spatial Data Infrastructure Cooperative Agreements Program, 1998-2000

Sponsor: Federal Geographic Data Committee/US Geological Survey, \$38,965

GIS CACTA/SEADAB Database Support, 1998-1999

Sponsor: Management Support Technology, Inc., \$22,000

International Mapping/GIS Conference for Humanitarian Demining, 1997-1998

Sponsor: Office of the Assistant Secretary of Defense, Special Operations and Humanitarian Affairs, \$33,000 (approximate)

ArcView Customizing for the Demining Support System in Bosnia, 1997-1998

Sponsor: US Department of Defense under the auspices of Star Mountain, Inc., \$52,900

Plotting with ArcView on the Demining Support System, 1996-1997

Sponsor: US Department of Defense under the auspices of Star Mountain, Inc., \$5,000 (approximate)

Demining Geographic Information System Database, 1996-1997

Sponsor: US Department of Defense under the auspices of Star Mountain, Inc., \$16,000 (approximate)

In charge of the following **projects at E-Plus Mobile Communications, 1993-1996:**

- **Specification and procurement of landuse classification from 50 Landsat images, 25 m resolution, 15 classes, 400,000 sq km**
- **Specification and procurement of 3D building models for major German cities, resolution 5 m and below**
- **Specification and procurement of scanned topographic maps with the scale 1:1,000,000, 1:500,000, 1:200,000 and 1:50,000. Approximately 1000 maps**
- **Acquisition of population data, 100 m resolution, 350,000 sq km**
- **Acquisition of complete street network data, including all road types and pedestrian zones for Germany, meter accuracy**

- **Acquisition of Digital Terrain Model, 30 m resolution, 350,000 sq km**
- **Acquisition of administrative boundary data for Germany.**
- **Quality control and certification of above spatial databases.**

Total far exceeds \$ 3,000,000

Projects at DeTeMobil between 1991-1993:

- **Acquisition of a plot spooling system for the main branch.**
- **“D-1 Network Imaging” needs assessment project.**
- **Strategic Project to create a “Graphical Information System for Service Representatives for the D-1 Cellular Phone System.”**

Total approximately \$ 60,000