

BIOGRAPHICAL SKETCH

Mark Francis Manone

Professional Preparation

Northern Arizona University, BA 1992 Geography/GIS
Northern Arizona University MA 2006 Rural Geography IP (oral defense 10/3/06)
ESRI Authorized GIS Instructor 2003-present

Appointments

Director, TC-Geospatial Research and Information Lab (GRAIL), Northern Arizona University 2005-pres.
Research Associate/Instructor/GIS, Department of Geology, Northern Arizona University 2002-pres.
Research Associate, Department of Geology, Northern Arizona University 2000-2002
Research Specialist, Department of Geology, Northern Arizona University 1994-2000
Research Technician Department of Geography, Northern Arizona University 1992-1994

Publications

- Manone, M.F.**, Umhoefer P.J. and Garcia, P. 2006, Integrating emerging Technologies Throughout the Geology Undergraduate Curriculum: Using Tablet PCs, Wireless Networks, and Digital Geospatial Data in the Classroom, Lab, and Field, 1st annual Workshop on the Impact of Pen-based Technology on Education. "The Impact of Pen-based Technology on Education: Vignettes, Evaluations, and Future Directions" editors Dave Berque, Jane Prey, and Rob Reed. Purdue University Press.
- Manone, M.F.**, Umhoefer, P.J., and Hoisch, T.D., 2003. A Digital Field Camp: Applying emerging Technology to Teach Geologic Field Mapping, Geological Society of America. Seattle Annual Meeting. November 2–5, 2003. Abstract.
- Manone, M.** 2004, Comparative assessment of short term volume change on sandbars using digital softcopy stereo-photogrammetry versus two-dimensional planimetric photogrammetry, Final report to the Grand Canyon Monitoring and Research Center, cooperative agreement # 1425-98-FC-40-22630, pp 38
- Kaplinski, M., Behan, J.R., J.E. Hazel, **M. Manone**, and R. Parnell, 2003, Evaluation of campsite studies in the Colorado River ecosystem: analysis and recommendations for long term monitoring, Final report to the Grand Canyon Monitoring and Research Center, cooperative agreement # OOPG400255, 0001, pp. 54
- Hazel Jr., J.E., M. Kaplinski, R. Parnell, and **M. Manone**, 2000, Sand Deposition in the Colorado River ecosystem from flooding of the Paria River and the effects of the November 1997, Glen Canyon Dam test flow, Final report submitted to the Grand Canyon Monitoring and Research Center, Northern Arizona University, Flagstaff, AZ, cooperative agreement # 1425-98-40-22630
- Hazel, J.E., M. Kaplinski, R. Parnell, and **M. Manone**, 2000, Monitoring Arroyo erosion of Pre-Dam river Terraces in the Colorado River ecosystem, 1996-1999, Grand Canyon National Park, Arizona, Final report to the Grand Canyon Monitoring and Research Center, cooperative agreement # 1425-98-40-22630.
- Hazel Jr., J.E., M. Kaplinski, R. Parnell, **M. Manone**, and A. Dale, 1999, Topographic and bathymetric changes at thirty-three long-term study sites, in *The Controlled Flood in Grand Canyon, Geophysical Monograph Series.*, vol. 110, edited by R.H. Webb, J.C. Schmidt, G.R. Marzolf, and R.A. Valdez, pp. 161-184, AGU, Washington, D.C., 1999.

Related Research and Teaching Grants

2005, HP Technology for Teaching Leadership Grant - \$168,000. Principal Investigator

2005, CRADLEE, E-Learning Mini-Grant - \$40,000. Co-Principal Investigator
Matching funds from AZTEC grant, \$10,000

2004, HP Technology for Teaching Grant - \$70,000. Co-Principal Investigator

2000, Grand Canyon National Park, Photographic techniques used to determine geomorphological processes proximal to cultural sites. Principal Investigator.

1999, Grand Canyon Monitoring and Research Center, A feasibility study: 2D versus 3D daily photogrammetry. Principal Investigator.

Synergistic Activities

- Co-PI and Technical Lead on \$333,089 in mobile wireless tablet PC based GIS research and development grants
- Presented development, advancements and struggles with mobile field based GIS technology at 11 conferences, workshops or showcases, 9 of which were invited
- Developed and implemented a field based data collection technique using off the shelf equipment for mapping and total station operation
- Designed and taught “GIS for Geosciences” which is a graduate level course focusing on GIS, GPS and data collection techniques for field based learning. The entire class is taught on tablet PC platforms.
- Implemented an ad hoc wireless network for classroom use so students can share and view projects and mapping assignments. This ad hoc network is ultimately designed to be used in field courses for student collaboration in a digital environment
- Developed several customized tablet PC GIS interfaces to map campsite area at all campsites along the Colorado River through Grand Canyon, field based geologic mapping and field based data entry.
- Led a 16 day, 226 mile Grand Canyon wilderness river trip entirely made up of 13-18 year old students. Many students were minorities and “at risk” youth. On the trip, which was subsidized by the USGS, we collected locations of existing survey control points. Students mapped and photo documented the points, described the general and specific locations, and entered them into a rugged tablet pc