



Central Region Newsletter

American Society for Photogrammetry and Remote Sensing

1400 Independence Road
Rolla, Missouri 65401

June

Volume 14
Number 3

Election of Officers – Ballot for 2002

The Officers and Board of Directors for the Central Region would like to invite members to vote in this year's election for Officers and Directors for the Central Region. The offices to which we are electing members are a Vice-President, Secretary/Treasurer, two Directors for three-year terms, one Director for a two-year term, and one Director for a one-year term. Biographical sketches of the nominees for each office are included below. The actual ballot is included at the end of the newsletter. Ballots must be submitted no later than 30 June 2002 to Vice-President Shelley Silch. The votes will be counted on 30 June.

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Vice Presidential Candidate – Matthew D Reed

The Vice President office is a three-year commitment. The incumbent spends one year as Vice President, another as President, and a third year as Past President. Other duties of the Vice-President include:

- ♦ Function as the President if the situation requires
- ♦ Chair the Membership Committee
- ♦ Assist the Secretary/Treasurer in compiling the Annual Report

- ♦ Drafting the Past-President's certificate for presentation to the outgoing Past-President

Matthew D Reed is a Geoscientist working for Science Applications International Corporation (SAIC) on contract to the United States Geological Survey (USGS) in Rolla, Missouri. Matt has a BA, in Geography, from the University of Arkansas, Fayetteville. He Specialized in Cartography / Remote Sensing (CRS), Geographic Information Systems (GIS). Mr. Reed has over nine years total work experience in commercial industry, local governments, and federal government agencies performing remote sensing and GIS processing and exploitation. He has worked closely with Army Space Command, Air Force Space Command, Space Warfare Center, and the USGS. Matt has been a member of ASPRS since 1992 and a Director on this Board since 1999.

Secretary/Treasurer Candidate – Jerry Wagner

The Secretary/Treasurer serves a one-year term as the Region's chief financial officer. Principal duties include maintaining accounting records of region funds and writing checks to cover Region expenses.

Jerry Wagner is a Cartographer at the USGS, Mid-Continent Mapping Center (MCMC). He was raised in St. Louis, Missouri and received a Bachelor of Science degree in Earth Science and Biology from Southeast Missouri University, Cape Girardeau and is working on a Masters of Business Administration. Jerry began in his mapping career working at Surdex Corporation in St. Louis before going into federal service at DMAAC (now NIMA) in St. Louis. He then transferred to MCMC in 1977 and entered the Cartographer Development Program (CDP). He has spent most of his 24 ½ years with the USGS in the Branch of Production Operations in various positions as cartographer, supervisor and section chief, Jerry and his wife, Linda, have two children, Melissa and Sarah.

Jerry has served as President of the Phelps County Habitat for Humanity board and on several church boards.

Jerry has been a member of ASPRS since 1976. He has served previously as Director and President of Rolla Region, ASPRS.

Directors

Directors normally serve a three-year term as a voting member of the board as well as some committee responsibilities. Committee work focuses on activities such as special programs, newsletter, outreach, etc. This year we are also electing two Directors to fill out terms where the incumbent resigned or took another position. One of these abbreviated terms is for two years and the other is for one year.

Directors- Three Year Terms – Scott Perkins and Philip Rufe

Scott Perkins, Vice President of Business Development, first earned his A.A.S. Degree in Photogrammetric Mapping Technology from Ferris University and later completed his Bachelor's Degree in Business Management at Baker University. It was in the early days of his career that Scott worked his way up within an established company to first become Director of Business Development for WAM, and later to become a Vice President. Scott has a thorough knowledge of photogrammetry, surveying and computer technology, and coupled with his dynamic business skills, he is WAM's lead client consultant and spokesman.

Scott leads a strong sales force and oversees their daily performances. As he is charged with determining the long-range future of WAM, Scott continually markets the mapping industry and stays abreast of changing technology.

Scott's professional memberships include: American Society of Photogrammetry and Remote Sensing, American Congress of Surveying and Mapping, National Computer Graphics Association and the Urban & Regional Information Systems Association.

Philip Rufe works in the Systems & Techniques Development Section of the Mid-Continent Mapping Center in Rolla, Missouri. He holds a BS in Geography from the United States Military Academy and an MS in Geography and Cartographic Science from George Mason University. Personal interests within the field are softcopy photogrammetry and imaging technologies

such as IFSAR and LIDAR. Phil has been a member of ASPRS since 1992 and a Director on this Board since 1996.

Director – Two Year Term – Steve Rich

Steve Rich has a B.A. in Geography with a concentration in Cartography from Memphis State University. Upon graduation, he worked as a computer operator with the Quality Control Section of the USDA's Cotton Division in Memphis, Tennessee. In 1991, he began work as a Cartographer with the USGS Mid-Continent Mapping Center (MCMC) in Rolla, MO. The focus of his work at the USGS has been in the production and quality control of digital cartographic data and in the improvement of these processes. The particular emphasis of this work has been with Digital Elevation Models and Digital Orthophotoquads. He is currently employed in the Mensuration Unit at MCMC.

Director – One Year Term – Darryl Williams

Darryl S. Williams is a Cartographer with the USGS, National Mapping Discipline (NMD) Mid-Continent Mapping Center (MCMC) located in Rolla, Missouri. Darryl has been with the USGS for 23 years, starting in 1978, and has worked in a variety of NMD activities. During his career, Darryl has acquired experience in both technical and programmatic activities and programs associated with the NMD.

Darryl currently works at MCMC as the Chief, for the Planning and Analysis Section. Darryl earned a Bachelor of Science degree in Mathematics from Langston University in Oklahoma, and he has completed graduate-level courses in Engineering Management from the University of Missouri-Rolla.

Darryl, his wife Connie, and their two teenage children, Ashlen and Stephen, all reside in the city of Rolla. They spend a great deal of time on youth activities and volunteer work with the Rolla youth soccer club.

Technical Presentations

Map Projections and Image Pixel Value Change

On May 10 at the USGS Mid-Continent Mapping Center, Dr. Jeong Chang Seong, an Assistant Professor in the Department of Geography at Northern

Michigan University, provided a technical presentation entitled 'Map Projections and Image Pixel Value Change'. Dr. Seong summarized research on the change in pixel values that occur when imagery is projected from a coordinate system that is designed to fit a local area to a system designed to fit a larger region or global area, and vice versa. Local area projections included the Universal Transverse Mercator projection system, and global area projections included the sinusoidal and Mollweide projections. Specifically, the effect of skewing, number of categorical values, and spatial autocorrelation were investigated along with a scale factor model that estimates the minimum categorical accuracy. This study revealed that the skewing could improve the scale factor model significantly, and that smaller number of categories could improve the categorical accuracy significantly.

Keeping original pixel values after rasterization, image transformation, and re-projection is very important for accurate analysis and modeling of raster data. In general, this research demonstrates the magnitude of pixel value variations that may be caused by the well-known scale factor and convergence angle functions that are associated with map projections and which are regularly accounted for during surveying computations. Considering the heavy reliance on geospatial data by government and private sectors, this research provides timely information regarding the reliability of geospatial data and pitfalls to be aware of when projecting raster data.

Weapons of Mass Destruction Civil Support Teams

Members of the 7th Weapons of Mass Destruction (WMD) Civil Support Team presented information about their mission and their equipment at the US Geological Survey's Mid-Continent Mapping Center on the 17th of May. The presenters were CPT Jeffrey Paulson and SFC Ted Wagner, the Nuclear Medical Science Officer and Nuclear-Biological-Chemical (NBC) Reconnaissance NCO of the unit.

WMD Civil Support Teams were established to deploy rapidly to assist a local incident commander in determining the nature and extent of an attack or incident; provide expert technical advice on WMD response operations; and help identify and support the arrival of follow-on state and federal military response assets. Each team consists of 22 highly skilled, full-time members of the Army and Air National Guard.

Each team has two large pieces of equipment: a mobile analytical laboratory for field analysis of

chemical or biological agents and a unified command suite that has the ability to provide communications interoperability among the various responders who may be on scene. Several of their systems, like the Meteorological Information and Dispersion Assessment System, utilize spatial data to monitor and predict NBC contamination.

The WMD Civil Support Teams are unique because of their federal-state relationship. They are federally resourced, federally trained and federally evaluated, and they operate under federal doctrine. But they will perform their mission primarily under the command and control of the governors of the states in which they are located. They will be, first and foremost, state assets. Operationally, they fall under the command and control of the adjutant generals of those states. As a result, they will be available to respond to an incident as part of a state response, well before federal response assets would be called upon to provide assistance.

The 7th Civil Support Team is based out of Fort Leonard Wood, Missouri. The presentation included guided tours of the mobile analytical laboratory and unified command suite.

Calendar

18th International CODATA Conference – "Frontiers of Scientific and Technical Data"

29 September-3 October 2002, this conference takes place at the Hotel Delta Centre-Ville, downtown Montreal. The Canadian and US National Committees for CODATA are hosting this four-day conference.

<http://www.codata.org/codata02/index.html>

Integrating Remote Sensing at the Global, Regional and Local Scale

The 15th William T. Pecora Memorial Remote Sensing Symposium/Land Satellite Information IV Conference and the ISPRS Commission I (Platforms and Sensors) Symposium will be held November 8-15, in Denver, Colorado; For more information, see the conference website www.asprs.org/Pecora-ISPRS-2002. For more information about ISPRS please see www.isprs.org