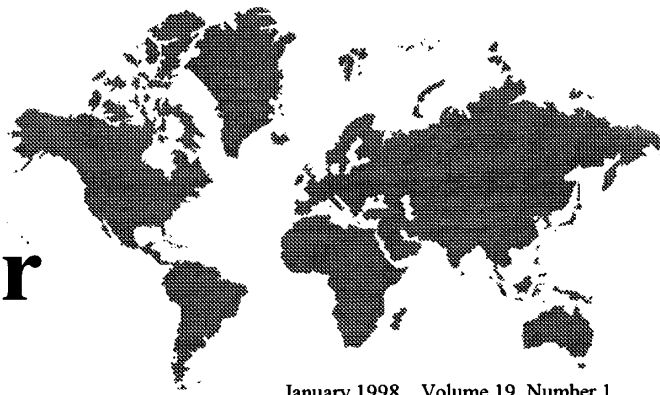


RSSG

Newsletter



Remote Sensing Specialty Group
Association of American Geographers

January 1998 Volume 19 Number 1

AAG 94th Annual Meeting **Boston, MA** **March 25-29, 1998**



RSSG Business Meeting ***Friday, March 27, 1998*** ***6:45-7:45 pm***

The RSSG extends thanks to Dan Brown (Michigan State University) for serving as RSSG 1998 Program Chair and organizing over a dozen remote sensing sessions. Special thanks, also, to Dale Quattrochi (NASA/Marshall Space Center) for organizing several sessions on Geostatistics and Remote Sensing co-sponsored by RSSG and the Royal Geographic Society-Institute for British Geographers, Remote Sensing Society.

RSSG Elections ***Ballot - See page 10***

RSSG Outstanding **Contributions Award** ***Nominations Requested***

The RSSG Outstanding Contributions Award is presented to members of the AAG RSSG who have made especially noteworthy contributions to the field of Remote Sensing. Past honorees have included: Dr. David Simonett (posthumously), Dr. Benjamin Richason, Jr. (posthumously), Dr. Alan Strahler, Dr. John Estes, Dr. John Jensen, Dr. Duane Nellis and Dr. Kamlesh Lulla, Dr. James Campbell and Dr. Stephen Walsh.

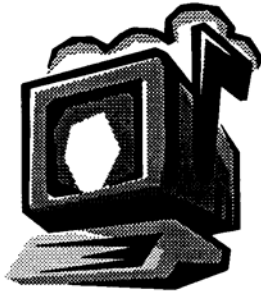
Candidates for the award are evaluated by a selection committee appointed by the RSSG board. The Chair of the RSSG Outstanding Contributions Award Committee is Duane Nellis (West Virginia University). Other member of the committee are Kam Lulla (NASA/Johnson Space Center) and Sue Berta (Indiana State University).

Nominations for the 1998 award must be received by **March 13, 1998**. Nominations must include a letter of nomination and a complete vita for each candidate. Send nominations to:

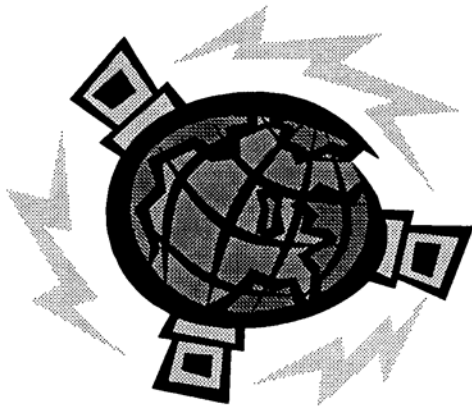
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RSSG Establishes Listserver

RSSG has established a listserv that will allow subscribers to post messages to over 350 RSSG members. This provides a means to communicate with most RSSG members in a timely, efficient manner. To post messages to the group, send e-mail to: rssg@ulysses.unl.edu If you have been receiving messages from the listserv recently, you need do nothing to remain a subscriber. Those who wish to have their names added to (or deleted from) the list should contact:



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Honors and Awards

Duane Nellis, formerly Associate Dean of Arts and Sciences at Kansas State University, has been named Dean of the Eberly College of Arts and Sciences at West Virginia University, Morgantown, WV.

Jim Merchant, University of Nebraska-Lincoln, received the 1997 John Wesley Powell Award for significant contributions made to advance the scientific mission of the U.S. Geological Survey (USGS). The award was conferred August 29, 1997 during a noontime ceremony at the USGS EROS Data Center (EDC), Sioux Falls, SD. Dr. Gordon Eaton, Director of the USGS, presented Merchant with the Powell Award for his significant contributions as a partner in remote sensing applications, development and research.

RSSG WWW Home Page

The RSSG WWW home page is located at <http://big.stpt.usf.edu/~rssg/index.html>
To contribute to the home page or for additional information contact:

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1998 AAG RSSG Student Competitions Update

I received numerous responses to enter the RSSG-sponsored student competitions at the 1998 AAG Annual Meeting in Boston. The RSSG/GISSG/Cartography SG-sponsored student poster competition has ten entrants, while the RSSG-sponsored student paper competition has seven entrants. Awards for both competitions will include certificates plus \$150.00 for first place, \$75.00 for second place, and \$50.00 for third place. My thanks to those who got the word out and to the competitors. Please support these students by visiting their posters and coming to their paper presentations. Both the student poster and paper awards will be presented at the *AAG Awards Lunch* on March 28th, from 11:30am to 1:00pm. Remember to check the final program you receive at registration for any changes to the scheduled events. See you in Boston! If you have any questions about the competitions or about student participation in the RSSG, you can contact me at:

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RSSG/GIS-SG/Cartography SG Student Poster Competition

We have another great turnout for this year's RSSG/GIS-SG/Cartography Specialty Group-sponsored student poster competition! Ten students have entered the competition, which promises to be a tightly contested event. Please support their efforts by visiting them during the appropriate poster sessions. The competitors are the sole or first authors of the posters. The preliminary session dates and times are listed below:

Session 129: Thurs., March 26 (11:30am-1:10pm)

- Hutchinson, Shawn. Radar Backscatter-Soil Moisture Relationships over Tallgrass Prairie. Kansas State University
- Mcfeeters, Stuart K., Bryan C. Leavitt, Asad Ullah, Donald C. Rundquist, and Roland N. Fraser. Delineating Open Water in Wetlands Using Landsat TM Data. University of Nebraska-Lincoln.
- Placchi, Carol A. Land Use and Water Quality Interactions in the Tijuana River. San Diego State University

Session 227: Thurs., March 26 (4:45pm-6:25pm)

- Duh, Jiunn-Der, Amy K. Lobben, Alison E. Philpots. Qualitative Focus Group Evaluation of a Physical Geography Multimedia Lesson. Michigan State University

Continued on page 4...Student Competitions

Session 340: Friday, March 27 (9:30am-11:10am)

- Adams, Josephine A. Age Characterization of Forest Clearcuts Using Landsat TM and IRS-1C Imagery. University of Oklahoma.
- Conover, S. Jason. Using Remotely Sensed Data to Study the Phenology of Prairie Grasslands in Oklahoma. University of Oklahoma.
- Ferro, Christopher J.S., and Timothy Warner. Scale and Texture in Digital Image Classification. West Virginia University
- Heaton, Jill S., and Charles L. Rosenfeld. Use of Aerial Videography to Assess Lizard and Desert Tortoise Habitat in the Mojave Desert, California. Oregon State University

Session 379: Friday, March 27 (11:30am-1:10pm)

- Wee, Hong-ling. The GIS of Singapore. Rutgers University
- Xiao, Ke. Fractal Compression and Analysis of Remotely Sensed Imagery. Louisiana State University

RSSG-Sponsored Student Paper Competition

Seven students have entered the new paper competition this year! Please also support these competitors by coming to the paper sessions. The student names and paper topics are listed below:

Session 37: Thurs., March 26 (7:30am-9:10am)

- Burcsu, Theresa. Remotes Sensing Based Biomass Estimation in a Florida Scrub Community. University of North Carolina at Chapel Hill.
- Key, Thomas, Timothy Warner, James McGraw, and Mary Ann Fajvan. An Evaluation of the Relative Value of Spectral and Phenological Information for Tree Canopy Classification of Digital Images in the Eastern Deciduous Forest. West Virginia University
- Medler, Michael Johns. Integrating Remote Sensing and Terrain Data in Forest Fire Modeling. University of Arizona.

Session 86: Thurs., March 26 (9:30am-11:10am)

- Read, Jane M. Detecting Land-cover Changes in a Lowland Tropical Environment using Landsat-TM Data. Louisiana State University
- Filippi, Anthony M. Multisource Neural Classification of AVIRIS and SIR-C Data. University of South Carolina

Session 187: Thurs., March 26 (2:45pm-4:25pm)

- Yang, Xiaojun, and Chor-Pang Lo. An Operational Approach to Land Use/Cover Change Mapping Using Multi-date Landsat MSS Imagery. University of Georgia.

Session 249: Thurs., March 26 (4:45pm-6:25pm)

- Rogan, John M. Mapping Fire Effects in a Semi-arid Grassland Using Remote Sensing Techniques. University of Arizona.

RSSG Members Build Centers of Excellence in Applications of Remote Sensing

Many RSSG members were among those recently awarded NASA funding for the acquisition of research equipment, instruments, or software for teaching/training and research in the application of remote sensing to regional or global integrated environmental assessments. The goals of the Centers of Excellence program are to:

1. Support the acquisition, through purchase, upgrade, or development, of state-of-the-art image processing and computing laboratories for use of remote sensing in environmental monitoring and research, as well as for research, training and education at U.S. academic institutions;
2. Improve access to remote sensing observations and increase use of remote sensing knowledge in the integration of environmental monitoring and research networks and programs across temporal and spatial scales and among resources;
3. Enable academic departments or cross-institutional units to create well-equipped learning environments that encourage use of remote sensing in research and monitoring;
4. Foster the development of next-generation environmental monitoring systems that will contribute to regional and global environmental assessments;
5. Encourage increased emphasis on capabilities for data fusion using observations from multiple satellites, in situ measurements, and socioeconomic data; and,
6. Promote partnerships between academic researchers and environmental practitioners in Federal, state, local and non-governmental organizations, as well as private-sector remote sensing industry.

A total of 118 proposals were received and subjected to panel review. The following RSSG members were selected for awards:

- Thomas R Allen, Old Dominion University
Geospatial Education and Research Development: A Laboratory for Remote Sensing and Environmental Analysis (LaRSEA)
- Marc P Armstrong, University of Iowa
Project LIVE: Laboratory for the Immersive Visualization of the Environment Analysis to Regional and Global Environmental Assessments
- Kenneth P Bowman & Robert C Maggio, Texas A&M Research Foundation , *An Environmental Data Server and Increased Capability for Spatial Data Integration*
- Jefferson Fox, East-West Center, Hawaii
Expanding the Use of Remotely Sensed Information for Detecting and Evaluating Environmental Change in Asia and the Pacific
- George F Hepner, University of Utah
Enhancement of Capabilities in Hyperspectral and Radar Remote Sensing for Environmental Assessment and Monitoring
- Karen S Humes, University of Oklahoma
Center of Excellence in Applications of Remote Sensing to Regional and Global Integrated Environmental Assessments
- Christopher O Justice, University of Virginia
Adding Remote Sensing to the Global Environmental Change Program at the University of Virginia
- Kevin P Price, University of Kansas
An Interdisciplinary Center of Excellence in Environmental Remote Sensing at the University of Kansas
- Donald C Rundquist, James W. Merchant, Sunil Narumalani and Fernando Echavarria, University of Nebraska Lincoln
An Initiative to Create an Environmental Monitoring Laboratory at the University of Nebraska-Lincoln

Continued on page 6...NASA Awards

- Stephen J Walsh, University of North Carolina
Population-Environment Interactions: An Integrated Program of Research, Instruction, and Training through Remote Sensing Applications
- Roy A Welch, University of Georgia
Enhanced Remote Sensing Capabilities for Integrated Assessments of Environmental Change
- Curtis E Woodcock, F. El-Baz, C, Cleveland, M. Friedl, S. Gopal, R. Kaufmann, J. Key, D. Dye, R. Myneni, G. Salvucci, and A. Strahler, Boston University
Center of Excellence in Remote Sensing at Boston University

MicroMSI Users

Possible Project for Remote Sensing Education

Paul Anderson (Illinois State University) would like to know who is currently using, or has in the past used, Scott Loomer's MicroMSI image analysis program. MicroMSI is freeware that can be downloaded from Scott's FTP site. Paul would like to identify additional images (in the size and format used by the program), along with published material, that could be freely distributed to the MicroMSI user community. Anyone interested in this effort is invited to contact:

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309-438-5310 (fax)
psanders@ilstu.edu

Use Your Newsletter

The **RSSG Newsletter** is your vehicle for communicating with colleagues interested in remote sensing. You are invited to send news regarding publications, awards, honors, academic programs, research activities, commercial ventures, students, jobs and other announcements to:

James W. Merchant
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Telephone: (402) 472-7531
FAX: (402) 472-2410
Internet: jm1000@tan.unl.edu

Invitation to Consider Organizing a Focus Section in *The Professional Geographer*

To: Specialty Group Chairs, AAG
From: Janet Franklin and Stuart Aitken,
Co-Editors, *The Professional Geographer*

We were recently awarded the editorship of *The Professional Geographer*. We hope to continue to use focus sections --groups of related articles --as one mechanism for encouraging timely, high-quality submissions to the journal, especially in (but not limited to) topic areas previously underrepresented in the journal. Focus sections can be constructed by the Editors from a group of unsolicited manuscripts on a related topic, or can result from manuscripts submitted as a group.

We call on you and members of your Specialty Group to consider organizing a focus section. For example, if you are organizing a special session or symposium at next years' AAG meeting, or any other professional meeting, you might be interested in coordinating a group of contributing authors for a focus session.

Here is how it would work:

1. The "focus section organizer" would contact the Editors and suggest the topic.
2. The organizer would contact potential authors (preferably 6-8 including her/himself) to determine if they are interested in contributing a manuscript.
3. The organizer and potential contributors would determine if the manuscripts would be appropriate for the PG, in terms of length (maximum of 5,000-6,000 words), and editorial policy.
4. The organizer would suggest a date by which all manuscript would be submitted (in consultation with the Editors) and would provide a preliminary list of authors and titles to the Editors.
5. The authors would submit manuscripts directly to the Editors by the agreed deadline, following the normal submission procedures, and with a cover letter indicating that the manuscript is intended to be part of the focus section.
6. The manuscripts would be subjected to the normal review procedures; assuming a quorum of the manuscripts received favorable reviews, and following any revisions, they would be published together in a focus section.

Note that because all manuscripts go through peer review, there is no guarantee that contributions to a focus section that are not submitted on time, that do not receive favorable reviews, or that are not revised and resubmitted in a timely fashion, will be included in the focus section.

As the physical geographer Editor, I (Janet) and especially wish to encourage focus sections on physical geography and geographical information science, as a way of increasing the number of high quality submissions in these subject areas --but of course we are interested in publishing on all areas of geography.

For additional details, contact:
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Candidates for RSSG Offices 1998

Candidate for Vice Chair

- **Dr. Dale A. Quattrochi** is a remote sensing research scientist with the NASA/George C. Marshall Space Flight Center, Earth Systems Science Division. He also is an adjunct faculty member in the Department of Geography at the University of New Orleans, the Department of Atmospheric Sciences at the University of Alabama in Huntsville, and the Department of Plant and Soil Science at Alabama A&M University. His recent research has focussed on the analysis of land-atmosphere energy exchanges using thermal remote sensing, on the spatial analysis of remote sensing data using fractals, and on the integration of remote sensing data with GIS. he has also worked with the National Center for Geographic Information and Analysis to improve the integration of remote sensing and GIS by exploring where impediments to such integration exist, and in developing a research agenda to overcome these impediments.

Candidates for Director

- **Dr. Timothy W. Foresman** has over 20 years of experience in remote sensing and GIS applied to environmental protection and urban/rural land use management. He has been a project scientist for the Department of Defense and the U.S. Environmental Protection Agency. His remote sensing experience includes private consulting and county government service, as a member of the Board of Directors of AM/FM International, as Board of Directors for the Potomac Region of the American Society of Photogrammetry and Remote Sensing, and Maryland's MSGIC Subcommittee for Standards. Dr. Foresman is Assistant Professor of Geography and Director of the Spatial Analysis Laboratory at the University of Maryland, Baltimore County. He was a founder of the UMBC-NASA Joint Center for Earth Systems Technology and serves as PI for the NASA/NCGIS/ASPRS Remote Sensing Core Curriculum Project.
- **Dr. Rolland Fraser** is Assistant Professor in the Department of Geography at Western Michigan University. He completed his dissertation, titled *Multiscale (Spatial, Spectral, Temporal) Remote Sensing of Biogeochemical Conditions in Nebraska Sand Hills Lakes* in 1996 at the University of Nebraska-Lincoln. His research interests are in remote sensing, biogeography/landscape ecology, microclimate and limnology/aquatic resources. He has recently authored articles on hyperspectral reflectance derivative spectra of lakes in *Photogrammetric Engineering and Remote Sensing* and the *International Journal of Remote Sensing*. Dr. Fraser teaches classes in physical geography, biogeography, and remote sensing. He is a member of the AAG and the American Society of Limnology and Oceanography. He has been a presenter at national AAG conferences since 1994, and has chaired several sessions in recent years.

Continued on page 9...Candidates

- **Dr. Scott A. Loomer** is Academy Professor of Geography at the United States Military Academy (USMA), West Point. He received a Ph.D. in Geography from the University of Wisconsin-Madison. Dr. Loomer Has served as Chair of the Microcomputer Specialty Group (1992-94). Since 1991 he has taught all of the courses in USMA's Mapping, Charting and Geodesy program (MC&G). His research has spanned a range of topics from a cartometric analysis of Portolan Charts (Medieval sailingcharts) to microcomputer-based multispectral imagery analysis. As an active duty military officer, he has been able to pursue remote sensing interests in both the civil and military sectors. Dr. Loomer has made numerous presentations at conferences of the AAG, ASPRS and ACSM. He was presented an award for best public domain geographic computer software by AAG in 1993 (MicroMSI) and 1996 (MicroCAM).
- **Dr. Emilio F. Moran** is James H. Rudy Professor of Anthropology and Director of the Anthropological Center for Training and Research On Global Environmental Change (ACT) at Indiana University. He also serves as Co-Director of Indiana University's Center for the Study of Institutions, Population and Environmental Change (CIPEC).

Candidate for Student Director

- **Bradley C. Rundquist** is a doctoral student and research assistant with the Department of Geography at Kansas State University. He received his M.A. in geography from Kansas State University in 1995 and B.A. in journalism from the University of Nebraska-Lincoln in 1991, where he minored in geography, biology, and Latin. Before returning to Kansas State for doctoral study, he worked for Lockheed Martin Engineering & Sciences Company in support of NASA's Earth Science Branch at Johnson Space Center, Houston, TX. There, he worked on all aspects of branch activities, including pre-mission astronaut training, in-orbit earth observations support, and post-mission photography cataloging, analysis and distribution. He also participated in pre-mission training sessions, and post-mission film screening, analysis, and space shuttle crew debriefs. Brad has taught and assisted in a variety of remote sensing and GIS courses at Kansas State.

1998 Ballot

Remote Sensing Specialty Group

Vote for one person for each RSSG office listed below. Offices to be filled in 1998 include:

- Vice-Chair (2 year term)
- Secretary-Treasurer (2 year term)
- Director (2 year term)
- Student Director (1 year term)

To vote you must be current member of RSSG and AAG. If you are interested in serving as an RSSG officer, you are encouraged to contact the Chair! No anonymous votes will be accepted. The name of the person voting must be provided. Note: If you write-in a name, please be sure the person "nominated" is a member of AAG and is willing to serve.

♦ Vice Chair (April 1998- April 2000):

Dale Quattrochi , NASA/Marshall Space Flight Center

♦ Secretary-Treasurer (April 1998-April 2000): No nominations received

♦ Director (April 1998-April 2000):

Scott A. Loomer, U.S. Military Academy

Emilio F. Moran, University of Indiana

Timothy W. Foresman , University of Maryland-Baltimore County

Rollie Fraser, Western Michigan University

♦ Student Director (April 1998-April 1999):

Brad Rundquist, Kansas State University


Name of person voting: _____

Please mail, fax or e-mail your vote by **March 17, 1998** to:

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WHAT'S NEW

Global Land Cover Characterization Data Available



The U.S. Geological Survey (USGS) and the University of Nebraska-Lincoln (UNL) have generated a 1-km resolution global land cover characteristics data base suitable for use in a wide range of environmental research and modeling applications. The USGS/UNL effort is part of the National Aeronautics and Space Administration (NASA) Earth Observing System Pathfinder Program. Funding for the project is provided by the USGS, NASA, U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, U.S. Forest Service, and the United Nations Environment Programme. The data set was derived from 1-km AVHRR data spanning a 12-month period (April 1992-March 1993) and is based on a flexible data base structure and seasonal land cover regions concepts. Seasonal land cover regions provide a framework for presenting the temporal and spatial patterns of vegetation in the data base. The regions are composed of relatively homogeneous land cover associations (for example, similar floristic and physiognomic characteristics) which exhibit distinctive phenology (that is, onset, peak, and seasonal duration of greenness), and have common levels of primary production. To access and download the data base and to obtain additional details, contact WWW <http://edcwww.cr.usgs.gov/landdaac/glcc/glcc.html>.

ArcExplorer

The Environmental Systems Research Institute (ESRI) has announced the availability of **ArcExplorer** software for **free download** via the Internet. ArcExplorer is a lightweight GIS data explorer that can be used as a stand-alone application working with local data sets and also as a client connected to an ESRI Internet Map Server. As a stand-alone application, ArcExplorer is a complete data explorer, allowing users to display and query a wide variety of standard data sources including ESRI shapefiles (.shp), ARC/INFO coverages, Spatial Database Engine (SDE) layers, and a wide variety of image formats. With ArcExplorer, users can pan and zoom through multiple map layers; display data using classifications, symbols, and labeling; and identify and query geographic and attribute data. ArcExplorer also features legends, overview maps, multiple views, saving and retrieving

views, and map printing. In addition to being a powerful data explorer, ArcExplorer can also be used as a Web mapping client when connected to an ESRI Internet MapServer. With ArcExplorer, users can publish maps and data on their Web sites. Users can browse and query data on their corporate Intranet or worldwide Internet. More important, ArcExplorer allows users to browse and download vector data via the Internet in industry-standard shapefile (.shp) format.

ArcExplorer runs under the Windows 95 and Windows NT operating systems. The prerelease version of ArcExplorer is currently available for free download at www.esri.com/arc-explorer. To connect to an ESRI Internet Map Server, download free geographic data, or search for additional free geographic data sets on the Web, visit ESRI's Data and Maps gateway at www.esri.com/data.

RSSG Newsletter
c/o James W. Merchant
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