AAG Remote Sensing Specialty Group

The RSSG Newsletter

Volume MMVI, Issue 1 April 2005

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AAG 2005 Annual Meeting
Denver, CO
April 5 to 9, 2005

"Ruminations" from the Chair:

A look towards the future...

In this, my final message as Chair of the RSSG, I would like to tell you a little about plans for the AAG conference in Denver, look back over some of our successes of the last two years, and look forward to new opportunities for the group. Most important of all, though, I would like to thank a few of the many people who make the RSSG so successful.

AAG Conference in Denver

A total of 29 poster and paper sessions will be sponsored by the Remote Sensing Specialty Group at the conference. I would particularly like to encourage you to attend the student competition sessions, which are always of a very high standard.

The business meeting of the RSSG is provisionally scheduled for Wednesday, April 6th, from 8:00 - 9:00 p.m. This will be an important meeting, and will include the election of new officers for the position of Vice-Chair, Director, Student Director, and Session Organizer for the 2006 AAG conference in Chicago. Please attend!

Unfortunately, the *Intermediate Image Classification* workshop organized by Jim Campbell and Randy Wynne of Virginia Tech was cancelled due to the low registration. This would have been a really interesting workshop, so it is a great shame that it had to be cancelled. It would be good to have RSSG-sponsored workshops at the annual meetings, but clearly we need to develop new ideas on how to promote them. Please let me know if you have any ideas about this issue, as we plan for the next AAG meeting.

Looking Back Over the Last Two Years

The RSSG has grown by 50% in the last few years, and currently has a total of 748 members. These high membership numbers suggest that RSSG should consider playing a larger role in the AAG as a whole. The increase in RSSG membership may partly reflect growth in the AAG as a whole, but I think the increase also reflects renewed vigor of our group.

The quality of the newsletter continues to increase. Our newsletter editor, John Althausen (Leica Geosystems), deserves many thanks for his efforts. However, it is essential that he get contributions from our members, so I encourage everyone to consider what material you might provide him. I think RSSG members are naturally reticent to publicize their own work and accomplishments. However, please don't be shy; help John continue to produce outstanding newsletters by offering material for the newsletter.

Jim Merchant (University of Nebraska-Lincoln) has very effectively run the group's list serve for many years. Recently, however, the AAG has agreed to provide more services to the specialty groups, including the option of a list serve. The advantage of the AAG operating the list serve is that membership lists will be updated automatically. You should have received an email from me in early February telling you about the new list serve, and how to post items to the new list serve. I noticed my spam filter initially blocked the list serve's emails, so you may need to check if you are able to receive items

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"Ruminations" from the Chair:

A look towards the future...

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posted to the list. Also, you may wish to change the frequency of how often the list serve will send you postings. For more information on the list serve, log on to the AAG website:

http://communicate.aag.org/eseries/scriptcontent/index.cfm

John Althausen has also done a sterling job with the group's website (http://www.aagrssg.org). The web site is starting to serve as a virtual office for the group, with archives of all the newsletters (thanks to Jim Merchant), reports, and other documents related to the group. In addition, the web site has many other resources worth perusing.

The RSSG is particularly lucky to have outstanding support from the editors of some of the leading remote sensing journals. Past RSSG Chairs are at the helm of *Photogrammetric Engineering and Remote Sensing* (Jim Merchant, University of Nebraska-Lincoln) and *Geocarto International* (Kam Lulla, NASA, and Duane Nellis, Kansas State). Geocarto International has published four special issues on the work of RSSG members, and *Photogrammetric Engineering and Remote Sensing* has agreed to publish on annual basis the winning Early Career Award paper by an RSSG member.

For me, two items really stand out about the last two years. Firstly, the student paper and poster competitions have set a very high standard. In 2004 we made seven awards in a competition ably organized by Student Director Theresa Burcsu (Indiana University). The job of the Student Director is one of the most demanding in the RSSG, and Theresa deserves much appreciation for her work.

The second item that stood out for me over the last two years was the reception for the past Outstanding Contributions Award Winners at the centennial AAG meeting in Philadelphia, organized by Kelly Crews-Meyer (University of Texas). Photos from the meeting are posted on the RSSG web site.

Looking forward

The RSSG is well positioned for future growth. Our new list serve will make it easier for us to maintain the currency of the mailing list. The enhanced website makes it possible for us also to add news more often to that site, and expand on the resources John Althausen has already developed for the site.

I mentioned in a previous newsletter my interest in updating the bylaws of the group. I have not heard from anyone following my request for feedback about how we might proceed. Nevertheless, I do think we need to update the bylaws, to ensure that we are in compliance with our own rules.

The most important issue for the future of the group is that we all should continue to get involved in group activities. Please let me know if you have any thoughts about this or any other RSSG topic. I can be reached at **tim.warner@mail.wvu.edu**.

Tim Warner
RSSG Chair
West Virginia University

Notes from the Editor:

John D. Althausen, Jr.

Welcome to the April 2005 issue of the RSSG Newsletter. Tim Warner and I thought it would be important to put a newsletter out before AAG-Denver so here it is.

I put a call out for materials in mid-March but unfortunately only a few items trickled in. That means that this will be a short newsletter and maybe that is the style we should look at towards the future? Short quarterly newsletters instead of one or two big ones. But no matter what road we choose, there needs to be contributions! Otherwise the newsletter becomes the voices and ideas of only a few, and it should definitely not be that!

This is the last newsletter that Tim Warner will contribute to as RSSG Chairperson. That saddens me as Tim has been a terrific advocate of both the newsletter and web site and really keeps me focused on both!

Overall, I want to thank Tim for getting the group to think as a group and thus share their interests with postings to the listserv, web site, and newsletter. I want to encourage everyone attending AAG-Denver to give Tim a big thanks for his excellent two years of service as RSSG Chairperson!

With that said, here is Issue MMVI, Number I. Enjoy!

Cheers, John A.

New AAG-RSSG List Serve

Join Up Now!

The AAG now offers specialty groups a list serve option. Therefore, we plan on phasing out the current list serve, and starting the AAG one.

There are two important differences between our old List Serve and the new one. The first is that by default your email from the list serve is only sent to you once per week. You can change this by following the instructions below. Secondly, to send items you have to log on to the AAG site, instead of sending them to an email address, as we did before. Brief instructions for posting new items are also provided below.

The RSSG thanks Jim Merchant for the excellent work he has done over many years in maintaining the old list serve. Electronic communication is so very important to our group, and therefore his service has made a big difference to our RSSG community.

Instructions for the new List Serve:

1. **Receiving mail from the list serve**

All AAG accounts are initially set up to receive mail once per week. You can change how often the emails are sent to you by doing the following:

Log on to the AAG site at http:// www.aag.org or directly at http://communicate.aag.org/eseries/source/security/member-logon.cfm?section=home

Note that there is an option to get your password emailed to you if you don't have it handy. Once you are logged on, click on the "Global Preferences" (to set preferences for all your specialty groups) or "Local Preferences" (for just one specialty group at a time). This should take you to a screen where you can set whether you want the emails mailed to you, and if so, how often.

RSSG Sponsored Sessions:

AAG-Denver 2005

There are **twenty-nine** RSSG sponsored sessions at the 2005 AAG in Denver, Colorado. Below is a listing of them that you can access further information about in the AAG Program.

Let's give our colleagues as much support as possible by attending these RSSG sponsored sessions!

- A Science Strategy for the USGS Geography Discipline, 2005-2015
- Burning Down the House: Wildfire Hazards, GIS & Remote Sensing
- Digital Hazardscapes: Hazards, GIS and Remote Sensing
- Environmental Applications of High Spatial Resolution Remote Sensing
- Experts exchange on hyperspectral and hypertemporal image analysis
- Geographic Information Science in Mountain Geography
- Geospatial Tools for Watershed Management I
- Geospatial Tools for Watershed Management II
- Geospatial Tools for Watershed Management III
- Geospatial Tools for Watershed Management IV
- Geosystems, Ecosystems, and Wildfires I: Geomorphic Hazards
- Geosystems, Ecosystems, and Wildfires II: Soil Factors and Time
- Geosystems, Ecosystems and Wildfires III: Remote Sensing Applications to Fire Hazard and Effects Assessment
- Geosystems, Ecosystems, and Wildfires IV: Biotic Effects and Responses
- Geosystems, Ecosystems, and Wildfires V: Management Issues
- Hyperspectral and LIDAR Remote Sensing
- Landscape Pathology
- Landsurface - Atmosphere Interactions I
- Landsurface - Atmosphere Interactions II and Urban Climate I
- Remote Sensing and GIS For Estuarine and Coastal Ecosystem Analysis
- Remote Sensing and GIS for Urban Analysis I
- Remote Sensing and GIS for Urban Analysis II
- Remote Sensing Applications
- Remote Sensing Student Honors Paper Competition I
- Remote Sensing Student Honors Paper Competition II
- Remote Sensing Techniques
- Satellite Climatology: Algorithms, Analyses and Applications
- Student Illustrated Paper Competition I
- Student Illustrated Paper Competition II

NGA to Withdraw Access to Aeronautical Charts

What's Your Opinion?

The National Geospatial Intelligence Agency (NGA) intends to withdraw all of its aeronautical products from public access. Are we as remote sensing professionals informed about and voicing our opinions on this matter?

Further commentaries or resources on the issue may be found in the resources listed at:

http://www.geoplace.com/uploads/FeatureArticle/0503nwl.asp

http://www.aopa.org/whatsnew/air_traffic/dod_charts.html

http://www.fcw.com/fcw/articles/2005/0207/pol-nga-02-07-05.asp

http://blog.librarylaw.com/librarylaw/2004/12/national_geospa.html

If you are interested in making a "for" or "against" comment to NGA, you have until June 30 to do so. Send your comments to aero.ocr@nga.mil

Below is a recent modification to the original announcement.

Modification to Announcement of Intent To Initiate the Process To Remove Aeronautical Information From Public Sale and Distribution

AGENCY: National Geospatial-Intelligence Agency (NGA), Department of Defense.

ACTION: Notice modification

SUMMARY: After initial feedback from the public on NGA's notice in Federal Register Volume 69, Number 222, pages 67546-67547, NGA has determined that a period of public comment will benefit the final decision on this policy issue.

Therefore, NGA is inviting

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Assistant Professor in Earth Systems Science

University of Arizona

The Department of Geography and Regional Development (GRD) and the Office of Arid Lands Studies (OALS) at the University of Arizona invite applications for a tenure track Assistant Professor in the area of earth systems science with emphasis on arid and semi-arid lands. We are seeking an energetic physical geographer/environmental scientist interested in working within a dynamic interdisciplinary environment.

The area of specialty is open, but we are most interested in candidates with a research focus that includes aspects of biogeography, land use/cover change, landscape ecology, and/or resource conservation and management. Specific technical expertise should include any combination of remote sensing, environmental modeling and mapping, decision support for natural resource management, and geographic information science.

The candidate will be expected to teach courses in GRD and in the Arid Lands Resource Sciences Graduate Interdisciplinary Ph.D. program. This joint position will address the convergent interests of both GRD and OALS around environmental problems and management issues faced by communities in arid and semiarid environments.

GRD and OALS are housed, respectively, within the College of Social and Behavioral Sciences and the College of Agriculture and Life Sciences. OALS is an interdisciplinary research unit established in 1964. The University of Arizona is noted for interdisciplinary research, and additional opportunities exist for collaborating with world class researchers in the School of Natural Resources, the Institute for the Study of Planet Earth, and other earth science related units on campus.

The units are seeking an individual who is able to work with diverse students and colleagues, and who has experience with a variety of teaching methods and curricular perspectives. To apply, visit the University of Arizona job webpage at http://www.uacareertrack.com and enter Job No. 32381.

Applicants should be prepared to submit a CV, letter of interest, statement of research and teaching interests, and the names and addresses of three referees. Additional materials, such as a teaching portfolio and research articles, may be subsequently requested by the search committee. The position is open until filled, with applications reviewed on a continual basis beginning March 31, 2005. Anticipated start date is August 2005. Position subject to final budgetary approval. *EEO Statement has been removed for space purposes.

Take the Terra Virtual Tour

NASA Celebrates Satellite's First Five Years

For the past five years, NASA's Terra satellite has documented Earth's changing landmasses, surface temperature, oceans, clouds and atmosphere. Five onboard instruments collect data and also snap some spectacular sights.

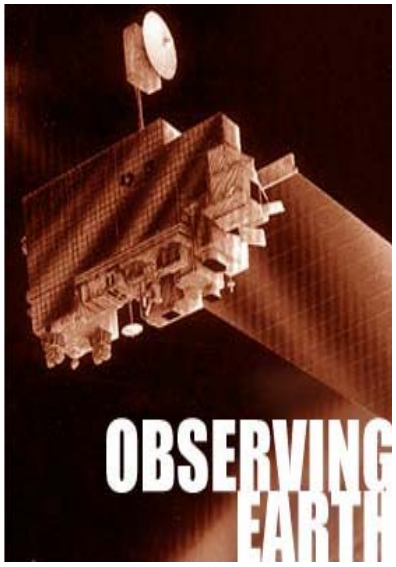
On December 18, 1999, NASA launched Terra, its Earth Observing System (EOS) flagship satellite. In February 2000, Terra opened its Earth-viewing doors to begin one of humanity's largest and most ambitious science missions ever undertaken - to give Earth its first physical check-up.

In particular, the mission is designed to improve understanding of the movements of carbon and energy throughout Earth's climate system.

Terra is a multi-national, multi-disciplinary mission involving partnerships with the aerospace agencies of Canada and Japan. Managed by NASA's Goddard Space Flight Center, the mission also receives key contributions from the Jet Propulsion Laboratory and Langley Research Center. Terra is an important part of NASA's Science Mission, helping us better understand and protect our home planet.

Take the Virtual Tour on Terra at:

http://www.jpl.nasa.gov/multimedia/terra5/



NGA to Withdraw Access to Aeronautical Charts

What's Your Opinion?

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public comment on the proposed action to withdraw aeronautical data and products from public distribution.

The period of comment will be open from the date of this Register until 30 June 2005. NGA will consider all comments when making the final decision to go forward with this proposed action, in part, in whole, or not at all.

DATES: Period of Public Comment: December 17, 2004 to 30 June 2005.

Proposed Implementation Date of Final Decision: 1 October 2005.

ADDRESSES: To make sure your comments and related material are entered only once in the docket please submit them by only one of the following means:

1. By e-mail to aero.ocr@nga.mil; or
2. By postal mail to: National Geospatial-Intelligence Agency, Mail Stop D-111, Attn: Public Release of Aeronautical Products, 4600 Sangamore Road, Bethesda, MD 20816-5003.

RSSG Members Score Awards at ASPRS

Cova, Sutton, and Theobald Honored

Tom Cova (University of Utah), Paul Sutton (University of Denver) and David Theobald (Colorado State University) are co-recipients of the 2nd Place 2005 John I. Davidson President's Award for Practical Papers. They also were awarded the 3rd Place 2005 Leica Geosystems Award for Best Scientific Paper in Remote Sensing. The awards were presented by ASPRS for their paper, "Exurban Change Detection in Fire-Prone Areas with Nighttime Satellite Imagery."

The paper was recognized for its value in demonstrating how nighttime "city lights" data can be used to map and monitor rapid exurban development in fire-prone areas.

asprs

NASA Researchers Using Imaging Radar

Detecting Coastal Pollution

A NASA-funded study of marine pollution in Southern California concluded space-based synthetic aperture radar can be a vital observational tool for assessing and monitoring ocean hazards in urbanized coastal regions.

"Clean beaches and coastal waters are integral to Southern California's economy and lifestyle," said Dr. Paul DiGiacomo, an oceanographer at NASA's Jet Propulsion Laboratory, Pasadena, California. He is lead author of the study recently published in the Marine Pollution Bulletin. "Using Southern California as a model system, we've shown existing high-resolution space-based radar systems can be used to effectively detect and assess marine pollution hazards. This is an invaluable tool for water quality managers to better protect public health and coastal resources," he said.

DiGiacomo and colleagues from JPL; the University of California, Santa Barbara; and the University of Southern California, Los Angeles, examined satellite radar imagery of the coastal waters of Southern California. The area is adjacent to 20 million people, nearly 25 percent of the U.S. coastal population. The imaging radar data from the European Space Agency's European Remote Sensing Satellites 1 and 2 and Canada's Radarsat were complemented by shore-based surface current radar data and other field measurements.

"The key to evaluating and managing pollution hazards in urban coastal regions is accurate, timely data," DiGiacomo said. "Since such hazards are usually localized, dynamic and episodic, they're hard to assess using oceanographic field sampling. Space-based imaging radar works day and night, regardless of clouds, detecting pollution deposits on the sea surface. Combined with field surveys and other observations including shore-based radar data, it greatly improves our ability to detect and monitor such hazards," he said.

The study described three major pollutant sources for Southern California: storm water runoff, wastewater discharge and natural hydrocarbon seepage.

"During late fall to early spring, storms contribute more than 95 percent of the region's annual runoff volume and pollutant load," said JPL co-author Ben Holt. "Californians are accustomed to warnings to stay out of the ocean during and after storms. Even small storms can impact water quality. Radar data can be especially useful for monitoring this episodic seasonal runoff," he said.

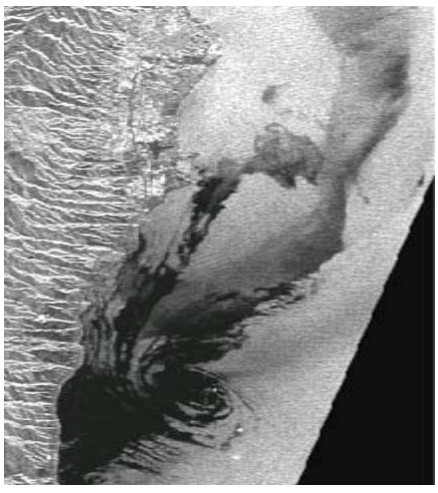
DiGiacomo noted a regional Southern California marine water quality monitoring survey is under way involving JPL and more than 60 other organizations, including the Southern California Coastal Water Research Project. Its goal is to characterize the distribution and ecological effects of storm water runoff in the region. Space radar and other satellite sensor data are being combined, including NASA's Moderate Resolution Imaging Spectroradiometers (MODIS). The sensors provide frequent observations, subject to clouds, of ocean color that can be used to detect regional storm water runoff and complement the finer resolution but less frequent radar imagery.

The second largest source of the area's pollution is wastewater discharge. Publicly owned treatment works discharge daily more than one billion gallons of treated wastewater into Southern California's coastal waters. Even though it is discharged deep offshore, submerged plumes occasionally reach the surface and can contaminate local shorelines.

Natural hydrocarbon seeps are another local pollution hazard. Underwater seeps in the Santa Barbara Channel and Santa Monica Bay have deposited tar over area beaches. Space imaging radar can track seepage on the ocean surface, as well as human-caused oil spills, which are often affected by ocean circulation patterns that make other tracking techniques difficult. Further research is necessary to determine the composition of pollution hazards detected by radar. "From imaging radar, we know where the runoff is, but not necessarily which parts of it are harmful," Holt said. "If connections can be established, imaging radar may be able to help predict the most harmful parts of the runoff."

While the researchers said environmental conditions such as wind and waves can limit the ability of space radar to detect ocean pollution, they stressed the only major limitation of the technique is infrequent coverage. "Toward the goal of a comprehensive coastal ocean observing system, development of future radar missions with more frequent coverage is a high priority," DiGiacomo said.

JPL is managed for NASA by the California Institute of Technology in Pasadena, California.



Member in the Spotlight

Dr. M. Duane Nellis, Provost - Kansas State University

M. Duane Nellis has spent his entire career at land-grant universities and now is provost of Kansas State University, one of the nation's first land-grant institutions. He was named Kansas State's provost in 2004.

Nellis spent 17 years at Kansas State, progressing from assistant professor of geography to professor and head of the department, and then to senior associate dean of Kansas State's College of Arts and Sciences. He was the first director of Kansas State's Institute for Social and Behavioral Research. In 1997, he accepted a post as dean of the Eberly College of Arts and Sciences at West Virginia University.

Nellis' research interests have been in the areas of natural resource systems and geo-spatial analysis technologies such as satellite remote sensing applications and Geographic Information Systems. He has published more than 100 research articles and numerous books and book chapters.

He is a member and immediate past president of the Association of American Geographers, the nation's largest professional geography organization, which presented him the John Fraser Hart Award for Research Excellence as well as national honors. He is a fellow of the Royal Geographical Society and former president of the National Council for Geographic Education. He received a Presidential Citation Award from the American Society of Photogrammetry and Remote Sensing. He also is a member of the American Association for the Advancement of Science and Soil Conservation Society of America.

At Kansas State, he won the University Distinguished Teaching Award in 1986, Adviser of the Year Award in 1985, and the Kansas State Phi Kappa Phi Faculty Research Scholar Award in 1995. He was selected as a distinguished lecturer for 1993-94 by the Kansas Academy of Science.

Nellis earned his Ph.D. in 1980 and his master's degree in 1977. Both degrees are in geography from Oregon State University. He earned a bachelor's degree in geography from Montana State University in 1976.

Nellis can be reached at:
785-532-6224 (phone)
provost.nellis@k-state.edu (e-mail)

National Space Grant College & Fellowship Program

National Network of 52 University-based Space Grant Consortia

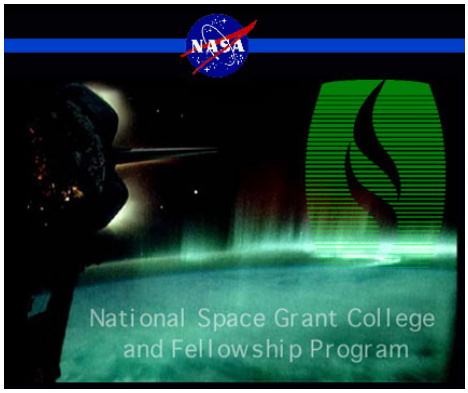
The National Space Grant College and Fellowship Program (also known as Space Grant) was initiated by NASA in 1989. Space Grant is a national network of colleges and universities working to expand opportunities for Americans to understand and participate in NASA's aeronautics and space programs by supporting and enhancing science, and engineering education, research, and public outreach programs.

The Space Grant national network includes over 820 affiliates from universities, colleges, industry, museums, science centers, and state and local agencies. These affiliates belong to one of 52 consortia in all 50 United States, the District of Columbia, and the commonwealth of Puerto Rico. The 52 consortia fund fellowships and scholarships for students pursuing careers in Science, Mathematics, Engineering and Technology, as well as curriculum enhancement and faculty development programs. Member colleges and universities also administer pre-college and public service education programs in their states.

Visit this Web site to discover how the National Space Grant College and Fellowship Program is organized.

Contacts in each state are listed along with information about scholarships and fellowships.

http://calspace.ucsd.edu/spacegrant/



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AAG-RSSG

We're on the Web

http://www.aagrssg.org

It's Your Newsletter!

The RSSG Newsletter is your vehicle for communicating with colleagues interested in remote sensing. You are invited to send news regarding research activities, students, publications, awards, honors, academic programs, projects, commercial ventures, jobs, and other announcements to the editor, John Althausen. If possible please submit contributions by e-mail in MS Word or RTF format.

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