LARS Newsletter

January/February/March 1998

* Note that this issue reflects 3 months. See next article and we think you will understand why! --CJJ

IN REFLECTION:

We warned you in the December Newsletter that we were moving. It took a lot more time and energy than Glenda and I had ever imagined. As we cleared out 30 years of files, it brought back a lot ofmemories such as the Large Area Crop Inventory Experiment (LACIE), AgRISTARS, the Machine Processing of Remote Sensed Data Symposia, and many other activities. We came across some old photographs and blackmail came across our minds but we will spare the guilty. The map files are now in a smaller room in Potter and map clients are finding their way across campus.

We had been in Entomology Hall for 11 years and it's amazing what you can accumulate. The contrast is great as we left one of the oldest building on campus to a more modern building. The Entomology staff were great and we will miss them. We understand that office space will be utilized during Bug Bowl this April. The new LARS address is 1202 Potter Hall, Purdue University, W. Lafayette, IN 47907-1202. LARS along with the new Advanced Agricultural Geographic Information Systems (AAGIS) Center are still under the Environmental Sciences and Engineering Institute. The phone remains the same (765) 494-6305 or try the new ESEI number: (765) 496-3209.

WE LOST ANOTHER SATELLITE:

As you probably all know EarthWatch launched Early Bird in late December and lost communication with the satellite. Early Bird was to bring us 3 meter resolution data. The other EarthWatch satellite called QuickBird has had a Fall, 1998 original launch but we have not seen a confirmation. The Lewis satellite built by TRW under a NASA contract was lost in October, 1997 when controllers lost communication with the satellite. This is striking a raw nerve among the aerospace companies.

Space Imaging EOSAT has delayed the launch of IKONOS 1 from December to March and now to June. This satellite will have a one meter panchromatic and 4 meter multispectral capability. The unfortunate thing about a June liftoff is that it usually takes about 90 days to check out the sensors and by that time, the growing season in North America will be over. However, not to worry, SIE knows that the growing season in the southern hemisphere will be starting during our fall and life and sales go on! We are looking for a successful launch and we wish them and others the best!

VISITOR FROM RUSSIA:

Dr. Victor Targulian, Research Scientist, Institute of Geography, Russian Academy of Sciences, visited the Purdue campus March 16-18. He presented a discussion to the Agronomy graduate students on "Elements of Global Change," presented an Agronomy Seminar on "Soil as an Open Complex System of Exogenic Biotic and Abotic Interactions" and taught a lecture in AGRY 350, Global Awareness. Dr. Targulian who is an internationally recognized soil scientist is currently the Chair of Section V, Soil Pedology of the International Soil Science Society. He is also interested in

developing a working relationship between Moscow State University where he is an Adjunct Professor and Purdue University.

PROJECTS FUNDED:

As you can see there are a number of LARS related faculty who have been successful in getting their proposals funded. --CJJ

John G. Lee and Stephen B. Lovejoy, Ag Economics, "A spatial decision support system for water quality management," USDA, \$157,000. September, 1997-August, 1998.

Mark T. Morgan, Ag & Biological Engineering, "Tri-state development of multimedia educational materials on site specific farming," Ohio State University, \$40,000. Aug, 1997-July, 1999.

George R. Parker, Forestry & Natural Resources, "Indian Pine Pilot Watershed Study," IN Dept. of Env. Mgt, \$72,000. Oct, 1997-Sept, 1999.

Chris J. Johannsen, AGRY, "Evaluating remotely sensed data for agricultural and natural resources applications," NASA, \$236,363, Oct, 1997-Dec, 1998.

Chris J. Johannsen (LARS), David A. Landgrebe (ECE), M.F. Baumgardner (AGRY), B.A. Engel (ABE) A. R. Gilliespie (F&NR), R.H. Grant (AGRY), J.M. Harbor (E&AS), G.R. Parker (F&NR), G. Shao, (F&NR) and J.J. Vorst, "LARS: A Center of Excellence in Remote Sensing Applications to Regional and Global Integrated Environmental Assessments," NASA \$90,220. Nov 1997-Nov 1998

E.M. Mikhail, Civil Engineering, "Rapid, affordable generation of terrain and detailed urban feature data," US Army, \$1,000,000. Sept, 1996-Nov 1998.

CONFERENCES/WORKSHOP DATES:

(* = New listing)

Please note that we are not repeating conferences/ workshops mentioned in previous newsletters except those of Professional Societies/organizations that appear to be of special interest to our faculty/students.

1998:

- *+April 5-8, Crop Simulation workshop, USDA-ARS Remote Sensing an Modeling Lab, Beltsville, MD. Contact: 301-504-6255.
- *+Apr 6-9, GIS '98/RT '98, Pathways to Knowledge Integration, GIS World, Toronto, Canada, Contact: 800-447-9753, www.GIS98.geoplace.com
- *+Apr 6-9, 7th Biennial Remote Sensing Applications Conference. USDA FS, Austin State Uni, Nassau Bay, TX. Contact: (801)975-3660, Fax: 3478, wo_rsac@fs.ded.us or www.fs.fed.us/eng/rsac/rs98
- +April 26-29, AM/FM International's Conference XXI, AM/FM International, San Jose, CA. Contact: 303-337-0513; fax: 303-337-1001; http://www.amfmintl.org

- +May 4-7, International IGUG Spring Meeting, US Intergraph Graphics User Group, Huntsville, AL. Contact: 800-642-9420.
- *+May 20-22. 3rd International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Centre for Res. in Geomatics, Quebec City, Canada. Contact: 418-656-5491, Fax: 3607, spatial.accuracy@scg.ulaval.ca; www.crg.ulaval.ca
- +May 27-29 2nd Mobile Mapping Symposium, OSU Center for Mapping, Columbus, OH. Contact: Fax: 614-292-8062, Email: mms@cfm.ohio-state.edu Call for Abstracts Due: October 3, 1997
- +May 27-30. International conference on Ground-Penetrating Radar, University of Kansas, Lawrence, KS. Contact: 913-864-7735
- +June 1-3 1st Int'l Conf. on Geospatial Info. In Agriculture & Forestry, ERIM, Lake Buena Vista, FL. Contact: 313-994-1200, ext. 3234, Fax: 994-5123; wallman@erim.org, http://www.erim.org/CONF/ag.html
- *+June 8-12, 27th Int'l Symp on RS of Environment, Tromso, Norway. Contact: RSE at (410) 730-5296, Fax: 2392, isrse@symposia.org or http://www.spacecentre.no/
- *+June 9-11, The 10th Int'l Geomatics Conference, Canada Remote Sensing Centre, Ottawa, Ontario, Canada. Contact: (613) 947-1244, Fax: 2410, sdi98@ccrs.nrcan.gc.ca or http://www.ccrs.nrcan.gc.ca/sdi98/
- +June 17-19, Geoinformatics 98 International Conference, CPGIS and CAGIS, Beijing, China. Contact: fax +86-1-6491-5035; proj@irsa.irsa.ac.cn;http://cpgis.geg.miami.edu/cpgis/geoim98/
- *+June 21-24 International Airborne Remote Sensing Conference and Exhibition, ERIM, Ottawa, ON, Canada. Contact: 313-994-1200 x3234; fax 313-994-5123; wallman@erim.org
- *+June 23-25, Int'l Conference on Modeling Geographical & Environmental Systems with GIS, Chinese Uni of Hong Kong, Hong Kong. Contact: 852-2609-6643, Fax: 852-2603-5174, geoconf@cuhk.edu.hk or http://www.geo.cuhk.edu.hk/geo-conf
- *+July 1-4, InterCarto 4: GIS for Environmentally Sustainable Development Conf & Exhibition, InterCarto, Barnaul, Russia. Contact: 385-2-258-756, Fax: 385-2-24-0396, iwep@iwep.altai.su
- +July 6-10 1998 IEEE International Geoscience & Remote Sensing Symposium, IGARSS, Seattle, Washington. Contact: 281-291-9222, Fax: 281-291-9224 or tstein@phoenix.net Call for papers: Due Jan 7, 1998
- *+July 9-11, Duane C. Brown International Summer School In Geomatics, Ohio State Uni., Columbus, OH. Contact: li.282@osu.edu or http://www-ceg.eng.ohio-state.edu/events/school.htm
- +July 19-22. 4th Int'l Conference on Precision Farming, University of Minnesota, St. Paul, MN. Contact: (612) 625-3125, Fax: (621) 624-4223, or probert@soils.umn.edu Abstracts due: December 1, 1997.

- *+July 19-23, URSIA '98, Charolotte, NC. Contact: (847) 824-6300, Fax: 6363, info@urisa.org or http://www.urisa.org
- *+July 20-24, 9th Australasian Remote Sensing & Photogrammetry Conference, RS&P Assoc. of Australasia, University of New South Wales, Australia.
- *+July 27-31, 1998 ESRI User Conference, San Diego Convention Center, San Diego, CA
- +Sep 1-4. ECO BP 98: International Symposium on Resource and Environmental Monitoring, ISPRS, Budapest, Hungary. Contact: +36-1-212-0056; fax +36-1-156-6581; http://www.hegyi.com/isprsc7
- *+Sep 7-11, Early Warning Systems for the Reduction of Natural Disasters, LOC-EWC98, Potsdam, Germany. Contact: 49-331-288-1523, Fax: 1504, ewc98@gfz-potsdam.de or http://www.gfz-potsdam.de/ewc98/
- *+Sep 14-17. Remote Sensing of the Atmosphere, Environment and Space. SPIE, Biejing, China. Contact: ciecechk@hk.china.com or http://www.china.com/ciec.html
- *+Sep 21-25, The European Symposium on Remote Sensing, CNR, NASA, EOS, SPIE, Barcelona, Spain. Contact: +32-2-743 15 73, Fax: +32-2-743 15 50, debby@associationhq.com or http://www.europto.org Abstracts due March 9, 1998
- +Oct 5-7, 5th International conference on Remote Sensing for Marine and Coastal Environments, ERIM, San Diego, CA. Contact: 313-994-1200 x3234; fax 313-994-5123; wallman@erim.org
- +Oct 8-12. 27th Int'l Symp. on Remote Sensing of the Environment, Tromso, Norway. Contact: isrse@spacecentre.no; URL: http://www.spacecentre.no/ Abstracts due: Oct. 15, 97
- *+Oct 29-Nov 1. 1st International Conf. on GIS Education (GISED '98), Towson University, Ypsilanti, MI. Contact: 410-830-2964, Fax: 3888; jmorgan@towson.edu
- *+Nov 6-7. 6TH ACM Symposium on Geographic Information Systems, Washington, DC. Contact: laurini@iutainfo.univ-lyon1.fr
- *+Nov 10-12, Pre-Conference 8-9, GIS/LIS 98 Annual Conference and Exposition, Fort Worth, Texas. Contact the GIS/LIS registrar 310-493-0200.

1999

- +Mar 1-3, 13th International Conference and Workshops on Applied Geologic Remote Sensing, ERIM, Vancouver, BC, Canada. Contact: 313-994-1200 x3234; fax 313-994-5123; wallman@erim.org
- +June 4th International Airborne Remote Sensing Conference and Exibition, ERIM, Ottawa, ON, Canada. Contact: 313-994-1200 x3234; fax 313-994-5123; wallman@erim.org

*+June 28-July 2. 1999 IEEE International Geoscience & Remote Sensing Symposium, IGARSS, Congress Centrum Hambug, Germany. Contact: 281-291-9222, Fax: 281-291-9224 or tstein@phoenix.net

2000

*+July 24-28. 2000 IEEE International Geoscience & Remote Sensing Symposium, IGARSS, Hilton Hawaiian Village, Honolulu, Hawaii. Contact: 281-291-9222, Fax: 281-291-9224 or tstein@phoenix.net

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--Chris J. Johannsen, Director NOTE: New address for LARS
Laboratory for Applications of Remote Sensing (LARS)

1202 Potter Hall, Purdue University,
W. Lafayette, IN 47907-1202, USA
(765) 494-6305, Fax: (765) 496-3216
johan@purdue.edu Note: login change! johannsn@ecn.purdue.edu also valid login.
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LARS Newsletter

April/May/June 1998

DIRECTOR COMMENTS:

As you can see from the events and articles in this issue of the LARS newsletter, we have had a busy Spring! We have seen graduate students complete their degrees, others in the final stages (should have another listing this summer) and several important visitors to our campus. I am personally involved more in the research program with the retirement of Dr. Marion Baumgardner. The excitement of working with students, development of specific research projects and preparing for course materials has made me feel like a Full Professor again. I am treasuring the moments as these are exciting times in Remote Sensing! - CJJ

JORDANIAN AMBASSADOR MARWAN MUASHER VISITS CAMPUS:

Dr. Marwan Muasher (EE, Ph.D., 1981) accepted an invitation of the Purdue Organization of Arab Students to visit Purdue University on April 1-3. He provided a public lecture on "Peace and the Jordan Model" where he described his country's efforts to seek and maintain peace in the Middle East. He was directly in the midst of the Middle East peace talks (1991-94), serving as spokesperson for the Jordanian delegation and also the Jordan Ambassador to Israel (1995-96). His engineering training was evident during question and answer sessions as he thoughtfully provided detailed answers to many difficult and challenging questions as he met with students as well as administrators while on campus. His sessions with students revealed a charming and modest personality but also a very knowledgeable person trained at Purdue and able to achieve his current status through good training, proper preparation through different key positions and a strong commitment to his country. His greatest joy was to meet with Dr. and Mrs. David Landgrebe since Prof. Landgrebe served as his major professor while at Purdue.

POL COPPIN VISITS PURDUE:

Prof. Pol Coppin, Director, Laboratory for Forest, Nature and Landscape Research, University of Leuven, Belgium visited with LARS faculty members on April 27-May 1 to seek the development of a joint program for degrees in Earth Observations with Purdue University. We are in the process of preparing a Memorandum of Understanding (MOU) to prepare for joint teaching and research programs between Leuven and Purdue. Prof. Coppin was a faculty member in our Forestry and Natural Resources Department before accepting his current position at the University of Leuven.

RECENT GRADUATES:

Pi-Fuei Hsieh, Ph.D., May 1998, Thesis title: "Classification of High Dimensional Data". Dr. Hsieh returned a few months ago to her home and family in Taiwan and employment there. Major Professor: David A. Landgrebe. Thesis can be downloaded at: http://dynamo.ecn.purdue.edu/~landgreb/publications.html

Saldju Tadjudin, Ph.D., May 1998, Thesis title: "Classification Of High with Limited Training Samples". Dr. Tadjudin, currently on a visit to her native Indonesia, will return to our Purdue ECE Multispectral Image Processing Laboratory shortly. Later this summer she will join a new start-up company in California. Major Professor: David A. Landgrebe. Thesis can be downloaded at: http://dynamo.ecn.purdue.edu/~landgreb/publications.html

Marie Minner, MS, Earth and Atmospheric Sciences, May, 1998. Thesis Title: Long-term hydrologic impact assessment: sensitivity analyses and advanced applications. Employment: Geophysicist. Major Professor: Jon Harbor.

SPECIAL ISSUE ON DATA FUSION:

A Special Issue of the IEEE Transactions on Geoscience and Remote Sensing will be dedicated to the subject of data fusion, a topic that is becoming increasingly important in remote sensing. The special issue will concentrate on the newest methodology and the applications of remote sensing data fusion. The guest editor is Dr. Jon A. Benediktsson (benedikt@hi.is) (EE, Ph.D., 19_). Jon is completing a 4-month sabbatical leave with the Space Applications Institute, Ispra, Italy while working on the special issue.

LARS FACULTY RECEIVE PROMOTIONS:

We are pleased to see that 2 of our LARS associated faculty received promotions to Full Professor. They are Okan K. Ersoy, Electrical and Computer Engineering and Richard H. Grant, Agronomy. Congratulations to both on achieving this well deserved status!

LARS FACULTY APPOINTMENTS:

Dr. Chris J. Johannsen, LARS Director was appointed to the Space Studies Board, National Research Council (1998-2001).

Dr. Marion F. Baumgardner, Professor Emertius of Agronomy was appointed to a 2 year appointment on the Advisory Committee of the National Satellite Land Remote Sensing Data Archive. Dr. Baumgardner retired from Purdue on January 1, 1998 but is still a steady participant in our programs. He recently established an office in International Programs providing direction to the Hungary-Purdue Program. A retirement event for Drs. Baumgardner, Wyman Nyquist and Joseph Yahner is scheduled on July 25 as part of the Purdue Agronomy Picnic. Persons wanting to extend greetings to Dr. Baumgardner should send letters addressed to him but sent to Dr. Chris J. Johannsen, AGRY, LILY Hall, Purdue University, W. Lafayette, IN 47907-1150 who is preparing a scrapbook of letters.

SUCCESSFUL FLORIDA CONFERENCE:

The First International Conference on Geospatial Technologies in Agriculture and Forestry on June 1-3 at Lake Buena Vista, FL drew a "who's who" of participants. Someone made the comment that "if a meteorite would have hit during the conference that remote sensing activities would set back for a decade." The attendance was 694 for the 3-day event, which was preceded by Workshops. LARS faculty and students taught a workshop on "Exploring Precision Farming" and we had 24 participants. The vendor participation was excellent. The next conference will likely be in

January/February, 2000 with the location to be selected. Congratulations to Bob Rogers and the ERIM staff for a "job well done".

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- +July 27-31, 1998 ESRI User Conference, San Diego Convention Center, San Diego, CA
- *+Sep?. 20th Asian Remote Sensing Conference, Asian Association of Remote Sensing, Manila, Philippines. Contact: chiwa@shunji.iis.u~tokyo.ac.jp Nov 11, Photogrammetry: The Reality in VR, British Photogrammetric Society, royal School of Military Survey, Hermitage, Newbury, Berks, UK. Contact: +44-163-520-4325; fax: 4236; tera.milsvy@pop3.hiway.co.uk
- +Sep 1-4. ECO BP 98: International Symposium on Resource and Environmental Monitoring, ISPRS, Budapest, Hungary. Contact: +36-1-212-0056; fax +36-1-156-6581; http://www.hegyi.com/isprsc7
- +Sep 14-17. Remote Sensing of the Atmosphere, Environment and Space. SPIE, Beijing, China. Contact: ciecechk@hk.china.com or http://www.china.com/ciec.html
- +Sep 21-25, The European Symposium on Remote Sensing, CNR, NASA, EOS, SPIE, Barcelona, Spain. Contact: +32-2-743 15 73, Fax: +32-2-743 15 50, debby@associationhq.com or http://www.europto.org

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- *+Aug 14-21 ICA * Ottawa 1999, The Canadian Institute of Geomatics, Ottawa, Canada. Contact: 613-992-9999; Fax: 8737; ica1999@ccrs.nrcan.gc.ca

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- *+ Jul 16-23, XIXth Congress of the International Society for Photogrammetry & Remote Sensing, ISPRS, Amsterdam, The Netherlands. Contact: +31-53-487-4358; fax: 4335; isprs@itc.nl; www.itc.nl/~isprs
- +July 24-28. 2000 IEEE International Geoscience & Remote Sensing Symposium, IGARSS, Hilton Hawaiian Village, Honolulu, Hawaii. Contact: 281-291-9222, Fax: 281-291-9224 or tstein@phoenix.net

--Chris J. Johannsen, Director Laboratory for Applications of Remote Sensing (LARS) 1202 Potter Hall, Purdue University, W. Lafayette, IN 47907-1202, USA (765) 494-6305, Fax: (765) 496-3216 johan@purdue.edu