

# Appendix A: Publications



Books, Chapters, Refereed Articles, Un-refereed Publications and Proceedings, Invited Lectures, and Other Lectures, Papers, and Oral Presentations.

## (I) Books.

### Scarlat, Cristina

**Scarlat, C.**, J.M. McKimmey, H.D. Scott, and E. Mersiovsky. 2004 Soils of Arkansas County, Arkansas. Research Report 972. Arkansas Agricultural Station. Division of Agriculture. University of Arkansas.

## (II) Chapters.

### Limp, W. Fredrick

**Limp, W. F.** In press "Data curation" in C. Chippendale and H. Maschner (eds.) *Handbook of Archaeological Method and Theory*. Altamira Press.

### Tullis, Jason

Jensen, J.R., **J.A. Tullis** and Xueqiao Huang, 2005, "Information Extraction Using Artificial Intelligence", *Introductory Digital Image Processing* (J.R. Jensen), 3<sup>rd</sup> Ed., Upper Saddle River, NJ: Prentice Hall, 526 pages.

Jensen, J.R., M.E. Hodgson, **J.A. Tullis** and G.T. Raber, In press. "Remote Sensing of Impervious Surfaces and Building Infrastructure", *Using Geospatial Technologies in Urban Environments* (R.R. Jensen, J. Gatrell and D.D. McLane, editors), New York, NY: Springer-Verlag, Inc.

## (III) Refereed Publications and Proceeding.

### Cothren, Jackson

**Cothren, J.** and Schaffrin, B. 2005 Reliability Design for Imagery from Data, International Cartographic Conference, A Coruña, Spain, June 9-16, 2005.

### Gorham, Bruce

Luscier, J. **B. Gorham**, and J Wilson. In press. Using Digital Photographs and GIS Software to Rapidly Quantify Vegetation around Active Ground Nests. *Journal of Field Ornithology*.

### Tullis, Jason

Hodgson, M.E., J.R. Jensen, G.T. Raber, **J.A. Tullis**, B.A. Davis, G. Thompson and K. Schuckman, in press "An Evaluation of LIDAR-derived Elevation and Terrain Slope in Leaf-off Conditions", *Photogrammetric Engineering and Remote Sensing*, in press.

**Tullis, J.A.**, J.R. Jensen and M.E. Hodgson, 2005, "Sensitivity of Hurricane Storm Surge Predictions to DEM Input: LIDAR versus USGS", *ASPRS 2005 Annual Convention*, 7-11 March, 2005, Baltimore, Maryland (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).

Raber, G.T. and **J.A. Tullis**, 2005, "The Combination of Multi-spectral and LIDAR Statistical Image Data for Mapping Surface Roughness Coefficients", *ASPRS 2005 Annual Convention*, 7-11 March, 2005, Baltimore, Maryland (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).

Cowen, D.J., J.R. Jensen, M.E. Hodgson, E.T. Bramble, A. Goyal and **J.A. Tullis**, 2005 "Development and Calibration of a Cellular Automata Urban Growth Model, *Auto-Carto 2005 Research Symposium*, 21-23 March, Las Vegas, Nevada (Cartography and Geographic Information Society).

### Wilson, John

Luscier, J. B. Gorham, and **J. Wilson**. In press. Using Digital Photographs and GIS Software to Rapidly Quantify Vegetation around Active Ground Nests. *Journal of Field Ornithology*.

## (IV) Unrefereed Articles.

### Cothren, Jackson

**Cothren, J.** 2005 Reliability in Constrained Gauss-Markov Models: An Analytical and Differential Approach with Applications in Photogrammetry. Report #473, Geodetic and GeoInformation Science, The Ohio State University. February, 2005.

**Cothren, J.** 2005 Lizard Tech GeoExpress 5.0 Extends the Utility of MrSID Generation 3 and JPEG 2000 Images. *Earth Imaging Journal*, May/June issue.

Tullis, J. and **Cothren, J.**, 2005. Review of QT Modeler. *GeoWorld*, March issue.

**Cothren, J.** and Gorham, B. (2005) Automated Feature Extraction, Software Advances Extract Impervious Surfaces from Satellite Imagery, *Earth Imaging Journal*, P32-34.

**Cothren, J.** (2005) Digital Mapping Cameras: Choosing the right tool for the job. *Earth Imaging Journal*, March/April issue.

**Cothren, J.** and Limp, F. (2004) It's a 3D world – emerging photogrammetry technologies make it easier than ever to deliver geospatial solutions. *GeoWorld*, January issue.

**Cothren, J.** and Limp, F. (2004) 3D applications at the Center for Advanced Spatial Technologies. *POB*, May issue.

**Cothren, J.**, 2004. Review of Leica Photogrammetry Suite. *GeoWorld*, May issue.

#### **Culpepper, Brian**

**Culpepper, B.** 2004 Planning Support Tools for Northwest Arkansas Communities Urban and Regional Information Systems Association (URISA) Participatory GIS Conference. Madison, WI.

**Culpepper, B.** 2004 Urban and Regional Planning: Decision Support I 2004 Environmental Systems Research Institute, (ESRI) Educational Users Conference. San Diego, CA.

**Culpepper, B.** 2005 Review of GeoExpress 5.0, LizardTech Inc. - *GeoWorld Magazine* (April 2005)

**Culpepper, B.** 2005 Review of GeoRover, SAIC Inc. - *GeoWorld Magazine* (March 2005)

Wilson, J and **B. Culpepper** 2004 ArcGIS 9.0 A User's Guide to Changes and Added Functionality. Feature Length Review. *GeoWorld Magazine* (August 2004) pp. 38-41.

#### **Gorham, Bruce**

Cothren, J. and **B. Gorham**. 2005. Automated Feature Extraction: Software Advances Extract

Impervious Surfaces from Satellite Imagery. *Earth Imaging Journal* Jan.-Feb.. Pp 32-34.

**Gorham, B.E.** and J.A. Tullis, 2005, "ArkansasView Semiannual Report", *AmericaView Progress Report*, USGS: EROS Data Center, SD, 7 pages.

#### **Limp, W. Fredrick**

Cothren, J. and **Limp, F.W.** (2004) It's a 3D world – emerging photogrammetry technologies make it easier than ever to deliver geospatial solutions. *GeoWorld*, January issue.

Cothren, J. and **Limp, F.W.** (2004) 3D applications at the Center for Advanced Spatial Technologies. *POB*, May issue.

**Limp, W. F.** 2004 Review of iSmart 4.3. *GeoWorld*. August 2004. page 56.

**Limp, W. F.** 2004 Review of SilverEye 2.0. *GeoWorld*. September 2004. page 56-58.

**Limp, W. F.** 2004 Review of KeyHole Pro *GeoWorld*. December 2004. page 68.

**Limp, W. F.** 2004. Review of Map2PDF. *GeoWorld*. December 2004. page 68-70.

#### **Roberts, Paxton**

**Roberts, P** 2005 Review of Avenza Systems' MaPublisher 6.1. *GeoWorld*. April.

#### **Trewby, Fiona**

**Trewby, F.** 2004 Review of Skyline Software Systems' TerraSuite, *GeoWorld* Oct .

#### **Tullis, Jason**

Bramble, E.T. and **J.A. Tullis**, 2004, "GIS and Remote Sensing in Support of Smart Growth – Phase III", *NASA Earth Science Enterprise, Earth Science Applications Directorate, University of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 34 pages.

**Tullis, J.A.**, 2004, "Predicted Storm Surge Inundation Boundaries: SLOSH Modeling with LIDAR-derived DEMs", *NASA Earth Science Enterprise, Earth Science Applications Directorate, University of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 17 pages.

Raber, G.T. and **J.A. Tullis**, 2004, "LIDAR Posting Density and Physiography: Effects on

DTM Accuracy and Flood Zoning”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, University of South Carolina Affiliated Research Center* Final Report, NASA: Stennis Space Center, MS, 57 pages.

Jensen, J.R., M.E. Hodgson, **J.A. Tullis** and G.T. Raber, “Remote Sensing of Impervious Surfaces and Building Infrastructure”, *Geo-Spatial Technologies in Urban Environments* (R.R. Jensen, J. Gatrell and D.D. McLane, editors), New York, NY: Springer-Verlag, Inc., 176 pages.

Gorham, B.E. and **J.A. Tullis**, 2005, “ArkansasView Semiannual Report”, *AmericaView Progress Report*, USGS: EROS Data Center, SD, 7 pages.

Ata, H.A., J.C. Cothren and **J.A. Tullis**, 2005, “QT Modeler 3.0”, a review of a LIDAR visualization and analysis package developed by Johns Hopkins University Applied Physics Laboratory, *GeoWorld Magazine* (Mar 2005).

**Tullis, J.** and Cothren, J., 2005. Software Review: QT Modeler. *GeoWorld*, March issue.

#### **Williamson, Malcolm**

**Williamson, M.** 2004 Review of SketchUp 3.1. *GeoWorld*. August.

**Williamson, M.** 2004 review of GeoMedia and GeoMedia Professional 5.2. *GeoWorld*, December.

#### **Wilson, John**

**Wilson, J.** 2004 Review of FME Suite 2004 ICE, Safe Software, Inc. *GeoWorld* (February 2005)

**Wilson, J.** and B. Culpepper 2004 ArcGIS 9.0 A User's Guide to Changes and Added Functionality. Feature Length Review. *GeoWorld Magazine* (August 2004) pp. 38-41.

## **(V) Invited Lectures.**

#### **Cothren, Jackson**

**Cothren, J.** LIDAR Quality Assessment in NW Arkansas using OPUS derived vertical control points. Arkansas GIS Users Conference, Sep, 2005.

Limp, F., **Cothren, J.**, Smith, A., Ernenwein, E., Harmon, D. (2004). Application of Ground-

Based LIDAR and Other Innovative Photogrammetric Methods to the Documentation of and Interpretation of Historic Structures and Archeological Sites. 2004 Partners in Environmental Technology Technical Symposium & Workshop “Meeting DoD’s Environmental Challenges”. Nov 30 – Dec 2, 2004. Washington, D.C.

**Cothren, J.**, (2004) Impervious surface delineation using high-resolution satellite imagery and segmentation with contextual constraints, RGIS Conference, Penn State University, October 29.

Smith, A. and **Cothren, J.**, (2004) The Narrows in 3D – A Virtual and Educational Experience, Innovmetric International PolyWorks User Meeting, Quebec City, Canada, June 17-18.

**Cothren, J.**, Tullis, J. and Limp, W.F., (2004) CAST and forest applications: from LIDAR to SDSS, Arkansas Forestry Association, October 13.

#### **Ernenwein, Eileen**

Kvamme, K., **E. Ernenwein**, F. Limp, D. Harmon, M. Hargarve and T. Sever 2004 Data Fusion Of Archaeological Remote Sensing From Ground-, Air-, and Space-Based Platforms. DoD Conservation Conference. Savannah. August.

Limp, F., Cothren, J., Smith, A., **Ernenwein, E.**, Harmon, D. (2004). Application of Ground-Based LIDAR and Other Innovative Photogrammetric Methods to the Documentation of and Interpretation of Historic Structures and Archeological Sites. 2004 Partners in Environmental Technology Technical Symposium & Workshop “Meeting DoD’s Environmental Challenges”. Nov 30 – Dec 2, 2004. Washington, D.C.

#### **Harmon, Deborah**

Kvamme, K., E. Ernenwein, F. Limp, **D. Harmon**, M. Hargarve and T. Sever 2004 Data Fusion Of Archaeological Remote Sensing From Ground-, Air-, and Space-Based Platforms. DoD Conservation Conference. Savannah. August.

Limp, F., Cothren, J., Smith, A., Ernenwein, E., **Harmon, D.** (2004). Application of Ground-Based LIDAR and Other Innovative Photogrammetric Methods to the Documentation of and Interpretation of Historic Structures and Archeological Sites. 2004 Partners in Environmental Technology Technical

Symposium & Workshop "Meeting DoD's Environmental Challenges". Nov 30 – Dec 2, 2004. Washington, D.C.

#### **Limp, W. Fredrick**

Kvamme, K., E. Ernenwein, **F. Limp**, D. Harmon, M. Hargrave and T. Sever 2004 Data Fusion Of Archaeological Remote Sensing From Ground-, Air-, and Space-Based Platforms. DoD Conservation Conference. Savannah. August.

**Limp, F.**, Cothren, J., Smith, A., Ernenwein, E., Harmon, D. (2004). Application of Ground-Based LIDAR and Other Innovative Photogrammetric Methods to the Documentation of and Interpretation of Historic Structures and Archeological Sites. 2004 Partners in Environmental Technology Technical Symposium & Workshop "Meeting DoD's Environmental Challenges". Nov 30 – Dec 2, 2004. Washington, D.C.

Cothren, J., Tullis, J. and **Limp, W.F.**, (2004) CAST and forest applications: from LIDAR to SDSS, Arkansas Forestry Association, October 13.

#### **Tullis, Jason**

Cothren, J., **Tullis, J.** and Limp, W.F., (2004) CAST and forest applications: from LIDAR to SDSS, Arkansas Forestry Association, October 13.

Gorham, B., **J.A. Tullis** and L. Farley, 2005, "Mapping Arkansas' Ever-changing Landscape; Arkansas LULC Program: 1992-2004", *ASPRS 2005 Central Region Technical Session*, 11 February, 2005, Fayetteville, Arkansas (Central Region of the American Society for Photogrammetry and Remote Sensing, Rolla, Missouri).

**Tullis, J.A.**, B. Gorham and L. Farley, 2005, "Arkansas' 2004 Land-use / Land-cover Mapping Using Decision Trees", *ASPRS 2005 Central Region Technical Session*, 11 February, 2005, Fayetteville, Arkansas (Central Region of the American Society for Photogrammetry and Remote Sensing, Rolla, Missouri).

#### **Smith, Angelina**

**Smith, A.** and Cothren, J., (2004) The Narrows in 3D – A Virtual and Educational Experience, Innovmetric International PolyWorks User Meeting, Quebec City, Canada, June 17-18.

## **(VI) Other Lectures, Papers, and Oral Presentations.**

#### **Cothren, Jackson**

**Cothren, J.** and Schaffrin, B., (2004). Reliability Analysis in Linear Models. The Thirteenth International Workshop on Matrices and Statistics, Będlewo, Poland. August 18-21, 2004.

**Cothren, J.** and Ezzaoudi, S. 2004 Quality Assessment of LIDAR observations for Northwest Arkansas Regional Planning Commission. Technical Session, Central Region of the American Society of Photogrammetry and Remote Sensing, University of Arkansas, AR (Feb 2004)

**Cothren, J.** and Gorham, B. 2004 Advanced Remote Sensing with Applications in Carbon Stock Modeling Workshop. NASA SERVIR Project. Panama City, Panama. (Jul 2004).

**Cothren, J.** 2005 Demonstration of the ADS40 Processing Chain and its Application to Medium and Large-scale Mapping and DEM Production. Northwest Arkansas Regional Planning Commission, Imagery Committee. Jun 2005.

#### **Culpepper, Brian**

**Culpepper, B.** 2005 GIS Technologies for Rural Decision-makers. Carroll County Leadership spring meeting in Green Forest, Arkansas, April 28, 2005

**Culpepper, B.** Arkansas' Wetland Resource Information Management System. Regional Wetlands Technical Conference in Corpus Christi, Texas, May 18, 2005

#### **Ernenwein, Eileen**

**Ernenwein, E.**, K L. Kvamme, W. F Limp, D L. Harmon, M L. Hargrave, T L. Sever, 2004 "Archeo-Geophysical, Panchromatic, and Multispectral Data Synergy at Four DoD and DoE Archaeological Sites." DoD Conservation Conference, Savannah, GA, August 2004.

Kvamme, K. L., **E.G. Ernenwein**, W. Fredrick Limp, D.L. Harmon, 2005 SERDP Annual Report, CS1263. Submitted to the Strategic Environmental Research and Development Program, Department of Defense, Washington, D.C.

**Ernenwein, E G.** and K. Kvamme. 2004 *Ground-penetrating Radar at the Landscape Scale: New Problems and Possible Solutions.* Archaeological Sciences of the Americas Symposium, University of Arizona, Tucson, September 2004.

**Ernenwein, E G.** and K. Kvamme 2005. *Archeo-Geophysical, Panchromatic, and Multispectral Data Synergy at Army City, Kansas.* Conference for Underwater Archaeology, Society for Historical Archaeology, St. Louis, MO, January 2005.

Markussen, Christine J., E G. Ernenwein, Stanley A. Ahler, and K. Kvamme 2004 *Mapping Microtopography at Double Ditch State Historic Site, North Dakota.* Plains Anthropological Conference, Billings, MT, October 2004.

#### **Harmon, Debbie**

Ernenwein, E., K L. Kvamme, W. F Limp, **D L. Harmon**, M L. Hargrave, T L. Sever, 2004 "Archeo-Geophysical, Panchromatic, and Multispectral Data Synergy at Four DoD and DoE Archaeological Sites." DoD Conservation Conference, Savannah, GA, August 2004.

Kvamme, K. L., E.G. Ernenwein, W. Fredrick Limp, **D.L. Harmon**, 2005 SERDP Annual Report, CS1263. Submitted to the Strategic Environmental Research and Development Program, DepartSERDP In Progress Review *New Approaches to the Use and Integration of Multi-Sensor Remote Sensing for Historic Resource Identification and Evaluation.* Washington, DC.

Kvamme, K. L., E.G. Ernenwein, W. F Limp, **D.L. Harmon**, 2004 SERDP Annual Report, CS1263. Submitted to the Strategic Environmental Research and Development Program, Department of Defense, Washington, D.C.

#### **Komlos, Linda**

The Association of American Geographers 2005 Annual Meeting, Denver, Colorado, April 5-9, 2005. *Diffusion of the West Nile Virus in Arkansas with a GIS Application* Paper Session.

#### **Limp, W. Fredrick**

Ernenwein, E G., K L. Kvamme, **W. F Limp**, D L. Harmon, M L. Hargrave, T L. Sever, 2004 "Archeo-Geophysical, Panchromatic, and Multispectral Data Synergy at Four DoD and

DoE Archaeological Sites." DoD Conservation Conference, Savannah, GA, August 2004.

Kvamme, K. L., E.G. Ernenwein, **W. F Limp**, D.L. Harmon, 2004 SERDP Annual Report, CS1263. Submitted to the Strategic Environmental Research and Development Program, Department of Defense, Washington, D.C.

**Limp, W. F.** 2004 Geospatial opportunities for research. Southern Universities Research Association Annual Meeting. Fayetteville AR. Nov. 2004

Lucio, L.D., **W. F. Limp**, and F.M. Stephen. (2004) Comparison of landscape attributes to level of tree damage determined by a rapid estimation procedure for red oak borer, *Enaphalodes rufulus* (Haldeman) (Coleoptera: Cerambycidae). ESA Poster. Salt Lake City, November 14-17, 2004

#### **Roberts, Paxton**

Smith, B. and **Roberts, P.** (2004). Methodological Issues in the Temporal and Spatial Analysis of Terrorist's Planning. American Society of Criminology Annual Meeting, Nashville, Tennessee. November 17-19, 2004.

Smith, B. and **Roberts, P.** (2004). Empirical Advances in the Social Scientific Study of Terrorism. Council for American Science Writers. Fayetteville, Arkansas. November 7, 2004.

#### **Scarlat, Cristina**

**Scarlat, C.** 2004 *Northwest Arkansas Imagery Project - A Benton and Washington Counties collaborative effort for acquiring high resolution aerial photography.* Poster for GIS Day Mullins Library. November.

#### **Trewby, Fiona**

**Trewby, F.** 2004 *The CADIS Project.* Poster for GIS day Mullins Library, Nov .

#### **Tullis, Jason**

Tullis, J. 2004 Guest lecture for *Geology 4413*, Dept. of Geosciences, University of Arkansas, Fayetteville, AR (Nov 2004).

**Tullis, J.** 2004 Workshop on 3D visualization of orthophotography and LIDAR-derived elevation data to students, faculty, and government officials at the *Mullins Library GIS Day Open House*, University of Arkansas, Fayetteville, AR (Nov 2004).

**Tullis, J.** 2004 “CAST and Forestry Applications: From LIDAR to SDSS” with Jackson Cothren and W. Fredrick Limp to foresters at the Arkansas Forestry Association (AFA) 2004 meeting, University of Arkansas, Fayetteville, AR (Oct 2004).

**Tullis, J.** 2004 “Expert and Machine Learning Decision Trees” to *Arkansas Soil and Water Conservation Commission* officials, University of Arkansas, Fayetteville, AR (Oct 2004).

**Tullis, J.** 2004 “Hurricane Storm Surge Prediction as a Function of DEM Input: Exploring a LIDAR-derived Alternate” to faculty and students in the *Geosciences Department*, University of Arkansas, Fayetteville, AR (Oct 2004).

**Tullis, J.** 2004 “On the Road to Generic Remote Sensing-assisted Spatial Decision Support Systems” to faculty and students in the *Environmental Dynamics PhD Program*, University of Arkansas, Fayetteville, AR (Nov 2004).

**Tullis, J.** 2005 “Exploring LIDAR-derived Inputs for Hurricane Storm Surge Models” to faculty and students in the *Department of Geography*, University of Southern Mississippi, Hattiesburg, MS (Feb 2005).

**Tullis, J.** 2005 “Predicted Storm Surge Inundation Boundaries: SLOSH Modeling with LIDAR-derived DEMs – Phase II” to NASA officials from *Applied Sciences Directorate*, Stennis Space Center, MS (Feb 2005).

**Tullis, J.** 2005 “Potential Remote Sensing-assisted Terrain, Land Cover, and Decision Support Models within a Grid Computing Environment” to Dr. Pat Brezonik from NSF and Central U.S. hydrology researchers at the *Great Plains Network Cyberinfrastructure Workshop*, University of Kansas, Lawrence, KS (Feb 2005).

**Tullis, J.** 2005 “Per-segment Classification and Machine Learning Decision Trees” to geospatial community professionals at the *eCognition 2005 International User Meeting*, Baltimore, MD (Mar 2005).

**Tullis, J.** 2005 “Automating & Optimizing Intelligent Knowledge-based Extraction of Land Cover Change” to students and faculty in the

*Department of Biological Sciences*, University of Arkansas, Fayetteville, AR (Apr 2005).

**Tullis, J.** 2005 “Optimizing Arkansas’ 2004 Land Use / Land Cover Map” to students and faculty in the *Environmental Dynamics PhD Program*, University of Arkansas, Fayetteville, AR (Apr 2005).

**Tullis, J.** 2005 “Automating & Optimizing Intelligent Knowledge-based Extraction of Land Cover Change” to students and faculty in the *Program in Environmental Science and Regional Planning*, Washington State University, Pullman, WA (Apr 2005).

**Tullis, J.** 2005 “Space and Planetary Science: An Earth Remote Sensing Perspective” to visiting undergraduate students, graduate students, and faculty in the *Arkansas Center for Space and Planetary Sciences* as part of the Center’s summer undergraduate research program (May 2005).

#### **Williamson, Malcolm**

**Williamson, M.** 2004 *Upgrade Your Projects with GIS*. EAST Facilitators Summer Seminar, Lake DeGray, Arkansas. July.

James, T., D. Fields, **M. Williamson**. 2004 *Ethics for EAST facilitators*. EAST Phase I Facilitator Training, Little Rock, Arkansas. August.

**Williamson, M.** 2005 *Statewide GIS Wetland Prioritization Methodologies: Accounting for Different Geomorphic Settings*. 2005 Regional Wetland Technical Conference. Corpus Christi, Texas. May.