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Education

- B.S.** Brigham Young Univ., Provo, UT, 1992-1999 (Geography: GIS, Physical; Minor Botany). Senior thesis title: "Distribution of Terrestrial Impact Craters: Correlation with Geologic Structure". Advisor: Perry J. Hardin.
- M.S.** Univ. of South Carolina, Columbia, SC, 1999-2001 (Geography: GIS/Remote Sensing, Machine Learning, Urban Ecology). Thesis title: "Artificial Intelligence for Automated Housing Enumeration from Pan-Sharpener IKONOS Imagery". Advisor: John R. Jensen. Other committee members: David J. Cowen and Robert E. Lloyd, Dept. of Geography.
- Ph.D.** Univ. of South Carolina, Columbia, SC, 2001-2003 (Geography: GIS/Remote Sensing, Geocomputation, Biogeography). Dissertation title: "Data Mining to Identify Optimal Spatial Aggregation Scales and Input Features: Digital Image Classification with Topographic LIDAR and LIDAR Intensity Returns". Advisor: John R. Jensen. Other committee members: David J. Cowen and Michael E. Hodgson, Dept. of Geography; Ronald D. Bonnell, Dept. of Computer Science and Computer Engineering.

Academic Positions

Associate Professor, Dept. of Geosciences, Univ. of Arkansas (Apr 2010 to present).

Faculty, Center for Advanced Spatial Technologies (CAST), Univ. of Arkansas (Aug 2004 to present).

Faculty, Arkansas Center for Space and Planetary Sciences, Univ. of Arkansas (Sep 2008 to present).

Assistant Professor, Dept. of Geosciences, Univ. of Arkansas (Aug 2004 to Apr 2010).

NASA Affiliated Research Center (ARC) Program Manager, Dept. of Geography, Univ. of South Carolina (Jun 2001 to Aug 2004).

Instructor, Dept. of Geography, Univ. of South Carolina (Aug 2001 to Dec 2003).

Research Assistant, Dept. of Geography, Univ. of South Carolina (Aug 1999 to May 2001).

PUBLICATIONS**A. Refereed Journal Articles and Book Chapters**

1. Tullis, J.A. and J.R. Jensen, 2003, "Expert System House Detection in High Spatial Resolution Imagery Using Size, Shape, and Context", *Geocarto International* 18(1):5-15.
2. Hodgson, M.E., J.R. Jensen, J.A. Tullis, K.D. Riordan and C.M. Archer, 2003, "Synergistic Use of LIDAR and Color Aerial Photography for Mapping Urban Parcel Imperviousness", *Photogrammetric Engineering & Remote Sensing* 69(9):973-980.
3. Hodgson, M.E., J.R. Jensen, G.T. Raber, J.A. Tullis, B.A. Davis, G. Thompson and K. Schuckman, 2005, "An Evaluation of LIDAR-derived Elevation and Terrain Slope in Leaf-off Conditions", *Photogrammetric Engineering & Remote Sensing* 71(7):817-823.

4. Hadley, B.C., M. García-Quijano, J.R. Jensen and J.A. Tullis, 2005, "Empirical versus Model-based Atmospheric Correction of Digital Airborne Imaging Spectrometer Hyperspectral Data", *Geocarto International* 20(4):21-28.
5. Jensen, J.R., J.A. Tullis and Xueqiao Huang, 2005, "Information Extraction Using Artificial Intelligence", *Introductory Digital Image Processing* (J.R. Jensen), 407-430, 3rd Ed., Upper Saddle River, NJ: Pearson Prentice Hall.
6. Jensen, J.R., M.E. Hodgson, J.A. Tullis and G.T. Raber, 2005, "Remote Sensing of Impervious Surfaces and Building Infrastructure", in *Geo-Spatial Technologies in Urban Environments*, edited by R.R. Jensen, J.D. Gatrell and D. McLean, 5-20, New York, NY: Springer-Verlag.
7. Raber, G.T., J.R. Jensen, M.E. Hodgson, J.A. Tullis, B.A. Davis and J. Berglund, 2007, "Impact of LIDAR Nominal Post-spacing on DEM Accuracy and Flood Zone Delineation", *Photogrammetric Engineering & Remote Sensing* 73(7):793-804.
8. Raber, G.T. and J.A. Tullis, 2007, "Rapid Assessment of Storm-Surge Inundation after Hurricane Katrina Utilizing a Modified Distance Interpolation Approach", *GIScience & Remote Sensing* 44(3):220-236.
9. Tullis, J.A., J.D. Cothren, D.E. Irwin, C. Yeager, W.F. Limp, J.M. Wilson, B.E. Gorham and S. Ogle, 2007, "Yearly Extraction of Central America's Land Cover for Carbon Flux Monitoring", *GIScience & Remote Sensing* 44(4):334-355.
10. Im, J., J.R. Jensen and J.A. Tullis, 2008, "Object-based Change Detection Using Correlation Image Analysis and Image Segmentation Techniques", *International Journal of Remote Sensing* 29(2):399-423.
11. Aquino, L.D., J.A. Tullis and F.M. Stephen, 2008, "Modeling Red Oak Borer (*Enaphalodes rufulus* Haldeman) Damage Using *In Situ* and Ancillary Landscape Data", *Forest Ecology and Management* 255(3-4):931-939.
12. Jensen, J.R., M.E. Hodgson, M. García-Quijano, J. Im and J.A. Tullis, 2009, "A Remote Sensing and GIS-assisted Spatial Decision Support System for Hazardous Waste Site Monitoring", *Photogrammetric Engineering & Remote Sensing* 75(2):169-177.
13. Tullis, J.A. and J.M. Defibaugh y Chávez, 2009, "Scale Management and Remote Sensor Synergy in Forest Monitoring", *Geography Compass* 3(1):154-170.
14. Riggins, J.J., J.A. Tullis and F.M. Stephen, 2009, "Per-segment Aboveground Forest Biomass Estimation Using LIDAR-derived Height Percentile Statistics", *GIScience & Remote Sensing* 46(2):232-248.
15. Schill, S.R., D. Rundquist, A. Filippi, K. Kvamme, J. Cothren and J.A. Tullis, 2009, "In situ Sensors and Field Methods", in *Manual of Remote Sensing: Earth Observing Platforms and Sensors*, edited by M.W. Jackson, 321-386, 3rd Ed., Vol. 1.1, Silver Springs, MD: American Society of Photogrammetry and Remote Sensing.
16. Tullis, J.A., J.R. Jensen, G.T. Raber and A.M. Filippi, 2010, "Spatial Scale Management Experiments Using Optical Aerial Imagery and LIDAR Data Synergy", *GIScience & Remote Sensing* 47(3):338-359.
17. Riggins, J.J., J.M. Defibaugh y Chávez, J.A. Tullis and F.M. Stephen, 2011, "Spectral Identification of Previsual Northern Red Oak (*Quercus rubra* L.) Foliar Symptoms Related to Oak Decline and Red Oak Borer (Coleoptera: Cerambycidae) Attack", *Southern Journal of Applied Forestry* 35(1):18-25.
18. Defibaugh y Chávez, J.M. and J.A. Tullis, 2013, "Deciduous Forest Structure Estimated with LIDAR-optimized Spectral Remote Sensing", *Remote Sensing* 5(1):155-182.
19. Wasiak, F.C., D. Androes, D.G. Blackburn, J.A. Tullis, V.F. Chevrier and J. Dixon, 2013, "A Geological Characterization of Ligeia Mare in the Northern Polar Region of Titan", *Planetary and Space Science* 84:141-147.

20. Young, S.G., J.A. Tullis and J.D. Cothren, 2013, "A Remote Sensing and GIS-assisted Landscape Epidemiology Approach to West Nile Virus", *Applied Geography* 45:241-249.
21. Jones, J.S., J.A. Tullis, L.J. Haavik, J.M. Guldin and F.M. Stephen, 2014, "Monitoring Oak-hickory Forest Change During an Unprecedented Red Oak Borer Outbreak in the Ozark Mountains: 1990-2006", *Journal of Applied Remote Sensing* 8(1):1-13.
22. Tullis, J.A., J.D. Cothren, D.P. Lanter, X. Shi, W.F. Limp, R.F. Linck, S.G. Young and T. Alsumaiti, 2015, "Geoprocessing, Workflows, and Provenance", in *Remote Sensing Handbook: Remotely Sensed Data Characterization, Classification, and Accuracies*, edited by P. Thenkabail, 401-421, Vol. 1., Boca Raton, FL: CRC Press.
23. Tran, H., S.L. Stephenson and J.A. Tullis, 2015, "Geographic Information System (GIS)-based Image Analysis for Assessing Growth of *Physarum polycephalum* on a Solid Medium", *Fungal Biology and Biotechnology* 2(1).
24. Bunker, B.E., J.A. Tullis, J.D. Cothren, J. Casana and M.H. Aly, 2016, "Object-based Dimensionality Reduction in Land Surface Phenology Classification", *AIMS Geosciences*, submitted.

B. Presentations and Abstracts at Meetings of Professional Societies (speakers underlined)

1. Tullis, J. A., 2001, "Expert System Identification of Houses in Satellite Imagery", *Bulletin of the South Carolina Academy of Science* LXIII:102.
2. Tullis, J. A., 2001, "IKONOS House Detection Using an Expert System", *ASPRS 2001 Annual Convention*, 23-27 April, St. Louis, Missouri (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
3. Hodgson, M.E., J.R. Jensen, G.T. Raber, J.A. Tullis, B.A. Davis, G. Thompson, L. Schmidt, and K. Schuckman, 2001, "An Evaluation of LIDAR- and IFSAR- derived Digital Elevation Models in Leaf-on Conditions with USGS Level 1 and Level 2 DEMs," *ASPRS/MAPPS Fall 2001 Terrain Mapping Conference*, 31 October-2 November, St. Petersburg, Florida (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland), poster presentation.
4. Cowen, D.J., J.R. Jensen, W.L. Shirley and J.A. Tullis, 2002, "Use of IKONOS Data to Measure Housing Density", *Proceedings of the AAG 98th Annual Meeting*, 19-23 March, 2002, Los Angeles, California (Association of American Geographers, Washington, D.C.), unpaginated CD-ROM.
5. Tullis, J.A., D.J. Cowen, J.R. Jensen, W.L. Shirley and D.R. Morgan, 2002 "GIS and Remote Sensing for Smart Growth Research", *Proceedings of the ASPRS 2002 Annual Convention*, 19-26 April, Washington, D.C. (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland), unpaginated CD-ROM.
6. Raber, G.T., M.E. Hodgson, J.R. Jensen, J.A. Tullis, G. Thompson, B.A. Davis and K. Schuckman, 2002, "Comparison of LIDAR Data Collected Leaf-on vs. Leaf-off for the Creation of Digital Elevation Models", *Proceedings of the ASPRS 2002 Annual Convention*, 20-26 April (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland), unpaginated CD-ROM.
7. Hodgson, M.E., J.R. Jensen, J.A. Tullis, B.C. Hadley, C. Robinson, K.D. Riordan, G.T. Raber, and C.M. Archer, 2002, "The Use of LIDAR and Optical Remotely Sensed Data for Mapping Parcel Level Permeability", *ASPRS 2002 Annual Convention*, 20-26 April, Washington, D.C. (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
8. Jensen, J.R., M.E. Hodgson, G.T. Raber, J.A. Tullis and B.A. Davis, 2003, "LIDAR-Derived Elevation and Slope Accuracy in Leaf-on and Leaf-off Conditions", *Proceedings of the AAG 99th Annual Meeting*, 5-8 March, 2003, New Orleans, Louisiana (Association of American Geographers, Washington, D.C.), unpaginated CD-ROM.

9. Raber, G.T., M.E. Hodgson, J.A. Tullis, B.A. Davis, J. Dorman, 2003, "Effects of LIDAR Posting Density and Physiography on DEM Accuracy and Flood Risk", American Society for Photogrammetry and Remote Sensing, *ASPRS 2003 Annual Convention*, 5-9 May, Anchorage, Alaska (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
10. Tullis, J.A., J.R. Jensen, K.D. Riordan, G.T. Raber, A.M. Browne, J. Backman and D.R. Morgan, 2003, "Measurement of Impervious Surfaces for Stormwater Management Applications Using Digital Aerial Imagery, Topographic LIDAR, and LIDAR Intensity Returns", *Proceedings of the ASPRS 2003 Annual Convention*, 5-9 May, Anchorage, Alaska (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland), unpaginated CD-ROM.
11. Davis, B.A., J. Berglund, L. Estep, M.E. Hodgson, G.T. Raber, J.A. Tullis, D. Maidment, P. Gueudet, V. Fischer, D. Box, G. Thompson and J. Dorman, 2003, "The Relationship Between Optimal Post Density Spacing and Flood Model Performance", *ASPRS/MAPPS Fall 2003 Terrain Mapping Conference*, 27-30 October, Charleston, SC (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
12. Tullis, J.A., J.R. Jensen, M.E. Hodgson and G.T. Raber, 2004, "LIDAR Digital Elevation Model Accuracy as a Function of Posting Density and Land Cover Category", *Proceedings of the AAG 100th Annual Meeting*, 14-19 March, 2004, Philadelphia, Pennsylvania (Association of American Geographers, Washington, D.C.), unpaginated CD-ROM.
13. Raber, G.T., J.A. Tullis, and J.R. Jensen, 2004, "LIDAR Statistical Image Fusion with IKONOS Data for Land Cover Classification", *Proceedings of the AAG 100th Annual Meeting*, 14-19 March, 2004, Philadelphia, Pennsylvania (Association of American Geographers, Washington, D.C.), unpaginated CD-ROM.
14. Raber, G.T., J.R. Jensen, M.E. Hodgson, M.E. Meadows, J.A. Tullis, B.A. Davis, J. Berglund, and J. Dorman, 2004, "The Impact of Varied Nominal Posting Density Topographic LIDAR Data on DEM Accuracy, Hydraulic Modeling and Flood Mapping", *AWRA 2004 Spring Specialty Conference: Geographic Information Systems (GIS) and Water Resources III*, 17-19 May, Nashville, Tennessee (American Water Resources Association, Middleburg, Virginia).
15. Tullis, J.A., J.R. Jensen and G.T. Raber, 2004, "LIDAR Data Mining to Enhance Aerial Image Classification", *Proceedings of the ASPRS 2004 Annual Convention*, 23-28 May, 2004, Denver, Colorado (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland), unpaginated CD-ROM.
16. Vaughan, D., J.R. Jensen, D. Porter, S. Walker, B.C. Hadley and J.A. Tullis, 2004, "Hyperspectral Change Detection of *Spartina alterniflora* in Murrells Inlet, SC 1997-2003", *ASPRS 2004 Annual Convention*, 23-28 May, 2004, Denver, Colorado (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
17. Raber, G.T., M.E. Hodgson, J.R. Jensen and J.A. Tullis, 2004, "A Sensitivity Analysis Using Varied Nominal Posting Density LIDAR Data for Hydraulic Modeling and Flood Zone Delineation", *ASPRS 2004 Annual Convention*, 23-28 May, 2004, Denver, Colorado (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
18. Hodgson, M.E., J.R. Jensen, G.T. Raber, J.A. Tullis, B.A. Davis, J. Dorman and G. Thompson, 2004, "Parcel-level Zoning Decisions and LIDAR Collection Parameters", *ASPRS 2004 Annual Convention*, 23-28 May, 2004, Denver, Colorado (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
19. Hadley, B.C., J.R. Jensen, J.A. Tullis and J.B. Gladden, 2004, "Hyperspectral Turf Grass Biomass Predictions as a Function of Atmospheric Correction Technique", *ASPRS 2004 Annual Convention*, 23-28 May, 2004, Denver, Colorado (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).

20. Tullis, J.A., J.R. Jensen, M.E. Hodgson, 2004, "A Local-to-national Partnership for Comparing USGS and LIDAR-derived Elevation Models as Inputs for Hurricane Storm Surge Prediction", *Proceedings of AmericaView 2004*, 20-22 September, 2004, Sioux Falls, South Dakota (AmericaView Program, USGS, Reston, Virginia).
21. 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).
22. 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).
23. 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).
24. 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).
25. Jensen, J.R., J.A. Tullis and J. Im, 2005, "Urban Remote Sensing", *Third International Symposium on Remote Sensing and Data Fusion Over Urban Areas and Fifth International Symposium on Remote Sensing of Urban Areas*, 15 March, 2005, Phoenix, Arizona.
26. 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).
27. Im, J., J.R. Jensen and J.A. Tullis, 2005, "Development of a Remote Sensing Change Detection System Based on Neighborhood Correlation Image Analysis and Intelligent Knowledge-based Systems", *IEEE International Geoscience and Remote Sensing Symposium*, 27 July, 2005, Seoul, Korea.
28. Tullis, J.A., B.E. Gorham, J. Cothren and W.F. Limp, 2005, "Per-segment Decision Tree Classification in the Arkansas 2004 Land Cover Project", *GIS For Local Government Conference 2005*, 17-19 October, 2005, University Park, Pennsylvania (Penn State Cooperative Extension, Geospatial Technology Program).
29. Tullis, J.A., J.D. Cothren, W.F. Limp, J. Im and J.R. Jensen, 2005, "GIS Implementation of Machine Learning Decision Trees", *Proceedings of Arkansas GIS Users Forum Conference and Symposium 2005*, 2-4 November, 2005, Hot Springs, Arkansas (Arkansas GIS Users Forum).
30. Gorham, B. and J.A. Tullis, 2005, "Monitoring Changes on the Arkansas Landscape: Land-use and Land-cover Dynamics 1992-2004", *Proceedings of Arkansas GIS Users Forum Conference and Symposium 2005*, 2-4 November, 2005, Hot Springs, Arkansas (Arkansas GIS Users Forum).
31. Im, J., J.R. Jensen and J.A. Tullis, 2006, "Object-oriented Change Detection Based on Correlation Analysis and Image Segmentation", *Proceedings of the AAG 2006 Annual Meeting*, 7-11 March, 2006, Chicago, Illinois (Association of American Geographers, Washington, D.C.), unpaginated CD-ROM.
32. Smith, Z.D., J.A. Tullis, K.F. Steele, L. Malfavon, 2006, "Martian Sinkholes: Implications for Large Scale Evaporite Deposits", *Proceedings of the Lunar and Planetary Sciences XXXVII*, 13-17 March, 2006, Houston, Texas (Lunar and Planetary Institute).

33. Tullis, J.A., J.D. Cothren, J.R. Jensen, M.E. Hodgson, B.C. Hadley and M. García-Quijano, 2006, "Hurricane Storm Surge Prediction as a Function of DEM Input: Exploring a LIDAR-derived Alternate in Beaufort County, SC", *ASPRS 2006 Annual Convention*, 1-5 May, 2006, Reno, Nevada (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
34. Riggins, J.J., J.A. Tullis and F.M. Stephen, 2006, "Assessing Forest Health at the Speed of Light: Applying Remote Sensing Technology to a Destructive Forest Insect", *ESA Annual Meeting*, 10-13 December, 2006, Indianapolis, Indiana (Entomological Society of America).
35. Stephen, F.M., M. Fierke and J.A. Tullis, 2006, "Red Oak Borer in Ozark Forests: Tracking the Rise and Fall of a Native Tree-killing Cerambycid", *ESA Annual Meeting*, 10-13 December, 2006, Indianapolis, Indiana (Entomological Society of America).
36. Coleman, K.S.A. and J.A. Tullis, 2007, "Classification of Depression Types on Mars", *Proceedings of the Lunar and Planetary Sciences XXXVIII*, 12-16 March, 2007, League City, Texas (Lunar and Planetary Institute).
37. Knapp, J.P., J.J. Riggins, J. Defibaugh y Chávez, J.A. Tullis and F.M. Stephen, 2007, "Examination of Spectral Leaf Signature Collection Methods in a Complex Upland Oak Ecosystem", *AAG 2007 Annual Meeting*, 17-21 April, 2007, San Francisco, California (Association of American Geographers).
38. Tullis, J.A., J. Wilson, J. Defibaugh y Chávez, F.M. Stephen, M. Fierke and J. Riggins, 2007, "Remote Sensing-assisted Decision Support for Red Oak Borer Hazard Response in Upland Oak-hickory Forests", *ASPRS 2007 Annual Convention*, 7-11 May, 2007, Tampa, Florida (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
39. Riggins, J.J., F. M. Stephen and J.A. Tullis, 2007, "Seeing the Forest AND the Trees: High Resolution Remote Sensor Technology and a Destructive Forest Insect Pest", *50th Southern Forest Insect Work Conference*, 23-26 July, 2007, Jekyll Island, Georgia (Univ. of Georgia, Athens, Georgia).
40. Riggins, J.J., F. M. Stephen and J.A. Tullis, 2007, "Estimation of Upland Oak Forest Biomass from LIDAR-derived Statistics", *Proceedings of AmericaView 2007*, 19-20 September, 2007, Fayetteville, Arkansas (AmericaView Program, USGS, Reston, Virginia).
41. Tullis, J.A., B. Culpepper, J. Defibaugh y Chávez, J.S. Jones, F.M. Stephen and J. Riggins, 2008, "Forest LIDAR-derived Statistical Enhancement of Oak Hazard Models", *ASPRS 2008 Annual Convention*, 28 April-2 May, 2008, Portland, Oregon (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
42. Stephen, F.M., M. Fierke, J. Guldin, L. Haavik, J. Riggins and J.A. Tullis, 2008, "Red Oak Borer as an Agent of Change in Arkansas Forests: an Historical Perspective", *International Congress of Entomology (ICE) XXIII*, 6-12 July, 2008, Durban, South Africa (Entomological Society of Southern Africa).
43. Tullis, J.A., J.S. Jones, J.M. Guldin, F.M. Stephen, B. Culpepper and P. Smith, 2009, "Integrated Remote Sensing-assisted Decision Support for Red Oak Borer Hazard Response", *AAG 2009 Annual Meeting*, 22-27 March, 2009, Las Vegas, Nevada (Association of American Geographers, Washington, D.C.).
44. Jones, J.S., J.A. Tullis, and F.M. Stephen, 2009, "Using NDWI to Detect Forest Decline and Growth in the Ozark National Forest", *52nd Southern Forest Insect Work Conference*, 28-31 July, 2009, Gulfport, Mississippi (Southern Forest Insect Work Conference, USA).
45. Cothren, J.D., M.D. Williamson and J.A. Tullis, 2009, "Leveraging LIDAR for a Wetland Assessment Model in the Bayou Meto Watershed", *Proceedings of Arkansas GIS Users Forum Tenth Biennial Symposium and Training*, 27-30 October, 2009, Eureka Springs, Arkansas (Arkansas GIS Users Forum and Central Region of the American Society for Photogrammetry and Remote Sensing).

46. Williamson, M.D., J.A. Tullis, J.D. Cothren and W.F. Limp, 2009, "Leveraging LIDAR for a Wetland Assessment Model in the Bayou Meto Watershed – Southeast Arkansas or – LIDAR in Really Flat Places", *Proceedings of North Dakota GIS Users Conference*, 2-4 November, 2009, Grand Forks, North Dakota (North Dakota Geographic Information Systems).
47. Tullis, J.A., J.S. Jones, A.T. Lingelbach, J.M. Defibaugh y Chávez and F.M. Stephen, 2010, "LIDAR and Spectral Interpretation of Decadal Changes in the Ozark National Forest", *ASPRS 2010 Annual Convention*, 26-30 April, 2010, San Diego, California (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
48. Wasiak, F.C., H. Hames, J.A. Tullis, D.G. Blackburn, V. Chevrier and J.C. Dixon, 2011, "On Characterizing the Stability of Titan's Lake Regions", *Proceedings of the Lunar and Planetary Sciences XLII*, 7-11 March, 2011, The Woodlands, Texas (Lunar and Planetary Institute).
49. Tullis, J.A., J.S. Jones, P.D. Smith and F.M. Stephen, 2011, "Online Spatial Decision Support for Insect Hazard Response", *Proceedings of AAG 2011 Annual Meeting*, 12-16 April, 2011, Seattle, Washington (Association of American Geographers, Washington, D.C.).
50. Tullis, J.A. and J.D. Cothren, 2012, "Crossroads in GIS Provenance and Metadata Query", *AAG 2012 Annual Meeting*, 24-28 February, 2012, New York, New York (Association of American Geographers, Washington, D.C.).
51. Bunker, B.E., J.A. Tullis and J.J. Casana, 2012, "Remote Sensing-assisted Multiscale Land Surface Phenology in the Northern Fertile Crescent", *AAG 2012 Annual Meeting*, 24-28 February, 2012, New York, New York (Association of American Geographers, Washington, D.C.).
52. Young, S.G., O.O. Mpedi and J.A. Tullis, 2012, "Remote Sensing-assisted Landslide Detection After the 2007 Pisco, Peru Earthquake", *AAG 2012 Annual Meeting*, 24-28 February, 2012, New York, New York (Association of American Geographers, Washington, D.C.).
53. Minteer, C., T.J. Kring and J.A. Tullis, 2012, "The Feasibility of Using Remote Sensing to Monitor Spotted Knapweed Biological Control Programs", *Joint Meeting of the Southeastern and Southwestern Branches of the Entomological Society of America*, 4-7 March, 2012, Little Rock, Arkansas (Entomological Society of America, Lanham, Maryland).
54. Welivitiyal, W.D.D.P., F.C. Wasiak, J.A. Tullis and V.F. Chevrier, 2012, "A Remote Sensing and GIS Approach for Change Detection on Titan's Lakes Using Cassini Orbiter's SAR Data", *Lunar and Planetary Sciences XLIII*, 19-23 March, 2012, The Woodlands, Texas (Lunar and Planetary Institute).
55. Wasiak, F.C., D. Androes, D.G. Blackburn, J.A. Tullis, V.F. Chevrier and J.C. Dixon, 2012, "Characterization of Ligeia Mare in the Northern Polar Region of Titan", *Lunar and Planetary Sciences XLIII*, 19-23 March, 2012, The Woodlands, Texas (Lunar and Planetary Institute).
56. Young, S.G., O.O. Mpedi and J.A. Tullis, 2012, "Change Detection After the 2007 Pisco, Peru Earthquake: Looking for Landslides", *ASPRS 2012 Central Region Annual Meeting*, 18 May, 2012, Eureka Springs, Arkansas (Central Region of the American Society for Photogrammetry and Remote Sensing, Rolla, Missouri).
57. Brahana, V., J. Jarvie, T. Sauer, F. Paillet, A. Sharpley, R. Davis, P. Hays, M. Covington, J. Murdoch, G. Thoma and J.A. Tullis, 2012, "The Complex Interrelation of Surface and Ground Water in a Mantled-Karst Setting – Modeling Implications from the Savoy Experimental Watershed", *CUAHSI 3rd Biennial Colloquium on Hydrologic Science and Engineering*, 16-18 July, 2012, Boulder, Colorado (National Science Foundation and Consortium of Universities for the Advancement of Hydrologic Science, Inc., Washington, D.C.).
58. Bunker, B.E. and J.A. Tullis, 2013, "Classification of Satellite Time Series-derived Land Surface Phenology Focused on the Northern Fertile Crescent", *ASPRS 2013 Annual Convention*, 24-28 March, 2013, Baltimore, Maryland (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).

59. Tullis, J.A., X. Shi and J.D. Cothren, 2013, “Implications of Provenance-aware Remote Sensing Process”, *ASPRS 2013 Annual Convention*, 24-28 March, 2013, Baltimore, Maryland (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
60. Young, S.G. and J.A. Tullis, 2013, “Landscape Epidemiology: West Nile Virus in the US”, *ASPRS 2013 Annual Convention*, 24-28 March, 2013, Baltimore, Maryland (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
61. Tullis, J.A., X. Shi and J.D. Cothren, 2014, “Role of a Provenance Store in Geoprocessing and Workflow Design”, *AAG 2014 Annual Meeting*, 8-12 April, 2014, Tampa, Florida (Association of American Geographers, Washington, D.C.).
62. Xue, B. and J.A. Tullis, 2015, “Comparing SVM, Cubist and Random Forest on Estimating Forest Total Biomass at Two Study Sites”, *AAG 2015 Annual Meeting*, 21-25 April, 2015, Chicago, Illinois (Association of American Geographers, Washington, D.C.).
63. Tullis, J.A., X. Shi and J.D. Cothren, 2015, “The Integrated Geoprocessing, Workflows, and Provenance Cycle”, *Imaging and Geospatial Technology Forum (IGTF) 2015*, 4-8 May, 2015, Tampa, Florida (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
64. Murch, W.P. and J.A. Tullis, 2015, “A Summer at ESRI: On the Forefront of GIS”, *2015 Arkansas GIS Users Forum Training and Symposium*, 31 August-4 September, 2015, Little Rock, Arkansas (Arkansas GIS Users Forum, Little Rock, Arkansas).
65. Tracy, B.R., J.A. Tullis, A. Barnes and I. Polonius, 2015, “Using GIS for Economic Development in Rural Arkansas”, *2015 Arkansas GIS Users Forum Training and Symposium*, 31 August-4 September, 2015, Little Rock, Arkansas (Arkansas GIS Users Forum, Little Rock, Arkansas).
66. Tullis, J.A., 2015, “Interchange of Provenance in GIS”, *GeoBytes*, 23 October, 2015 (ASPRS GIS Division, Bethesda, Maryland).
67. Tullis, J.A. and R.F. Linck, 2016, “Capture and Use of Geospatial Provenance in Mainstream GIS”, *Imaging and Geospatial Technology Forum (IGTF) 2016*, 11-15 April, 2016, Fort Worth, Texas (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).
68. Mueller, T., J.A. Tullis, P. Van Benthem, R. Dodge and J.B. Sharma, 2016, “Education Tools and Lessons to Improve Remote Sensing and GIS Workflows” *Imaging & Geospatial Technology Forum (IGTF) 2016*, 11-15 April, 2016, Fort Worth, Texas (American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland).

C. Articles in Trade Periodicals and Published Reviews

1. 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 Univ. Applied Physics Laboratory, *GeoWorld Magazine* (Mar).
2. Raber, G.T., J.A. Tullis and J.R. Jensen, 2005, “Remote Sensing Data Acquisition and Initial Processing”, *Earth Observation Magazine* 14(5).
3. Limp, W.F., J.C. Cothren and J.A. Tullis, 2007, “New Analysis Tools – Expanded LIDAR Information Content Drives New Application Opportunities”, *Earth Imaging Journal* (Jan/Feb).
4. Tullis, J.A., 2009, Review of *Topographic Laser Ranging and Scanning: Principles and Processing*, by J. Shan and C.K. Toth (Eds.), *Photogrammetric Engineering & Remote Sensing* 75 (10): 1163–64.

D. Online Resources

1. Jensen, J.R., J. Gladden, E.T. Slonecker, J.A. Tullis, J. Im, M. Garcia-Quijano and B.C. Hadley, 2007, “Remote Sensing-assisted Hazardous Waste Site Monitoring Decision Support System”, *NASA REASoN Project: Research Education and Solutions Network*, <http://webra.cas.sc.edu/reason/home.aspx>.
2. Tullis, J.A., F.M. Stephen, J.M. Guldin, J.S. Jones, J. Wilson, P.D. Smith, T. Sexton, B. Cullpepper, B.E. Gorham, J.J. Riggins, and J.M. Defibaugh y Chávez, 2012, “Applied Silvicultural Assessment (ASA) Hazard Map”, *Univ. of Arkansas Forest Entomology’s Applied Silvicultural Assessment*, <http://asa.cast.uark.edu/hazmap/>.

TECHNICAL REPORTS

- Tullis, J.A., W.L. Shirley and S. Vehige, 2001, “Evaluation of High Resolution Imagery as Part of an Automated Classification System to Assess Market Potential for Future Investment Brokerage Branch Offices”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, Univ. of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 63 pages.
- Raber, G.T., M.E. Hodgson and J.A. Tullis, 2002, “A Comparison of LIDAR-derived Elevation Accuracy in Leaf-on and Leaf-off Conditions”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, Univ. of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 15 pages.
- Tullis, J.A., B.C. Hadley, K.D. Riordan and C.M. Archer, 2002, “The Use of LIDAR and Remotely Sensed Imagery for Mapping Parcel Level Permeability”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, Univ. of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 64 pages.
- Cowen, D.J., W.L. Shirley and J.A. Tullis, 2002, “GIS and Remote Sensing in Support of Smart Growth Research”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, Univ. of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 52 pages.
- Jensen, J.R., B.C. Hadley, J.A. Tullis, J. Gladden, E. Nelson, S. Riley, T. Filippi, M. Pendergast, 2003, “2002 Hyperspectral Analysis of Hazardous Waste Sites on the Savannah River Site”, *DOE Office of Science and Technology, Westinghouse Savannah River Company Technical Report 2003-00275*, Westinghouse Savannah River Company: Aiken, SC, 52 pages.
- Goyal, A. and J.A. Tullis, 2003, “GIS and Remote Sensing in Support of Smart Growth Research – Phase II”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, Univ. of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 36 pages.
- Raber, G.T. and J.A. Tullis, 2003, “Effects of LIDAR Posting Density and Physiography on DTM Accuracy”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, Univ. of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 7 pages.
- Tullis, J.A., K.D. Riordan and A.M. Browne, 2003, “Measurement of Impervious Surfaces for Stormwater Management Applications Using Digital Aerial Imagery, Topographic LIDAR, and LIDAR Intensity Returns”, *NASA Earth Science Enterprise, Earth Science Applications Directorate, Univ. of South Carolina Affiliated Research Center Final Report*, NASA: Stennis Space Center, MS, 74 pages.
- Jensen, J.R., J.A. Tullis, M.J. García-Quijano, B.C. Hadley and J. Im, 2004, “Improved Management of Technological Hazards Focusing on the Development of a Remote Sensing-assisted Hazardous Waste Site Monitoring Decision Support System”, *NASA Earth Science Enterprise, Univ. of South Carolina Research, Education, and Application Solutions Network (REASoN) Report*, 28 pages.

- 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, Univ. 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, Univ. 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, Univ. of South Carolina Affiliated Research Center* Final Report, NASA: Stennis Space Center, MS, 57 pages.
- Gorham, B.E. and J.A. Tullis, 2005, "ArkansasView Semiannual Report (January-June 2005)", *AmericaView* Progress Report, USGS: EROS Data Center, SD, 7 pages.
- Tullis, J.A. and B.E. Gorham, 2005, "Arkansas LULC Mapping – Phases I – II", *Arkansas Soil and Water Conservation Commission* Final Report, Arkansas Soil and Water Conservation Commission: Little Rock, AR, 4 pages.
- Bramble, E.T., K.C. Remington and J.A. Tullis, 2005, "GIS and Remote Sensing in Support of Smart Growth – Phase IV", *NASA Earth Science Enterprise, Applied Sciences Directorate, Univ. of South Carolina Affiliated Research Center* Final Report, NASA: Stennis Space Center, MS, 19 pages.
- Tullis, J.A., B.C. Hadley, M. García-Quijano and Y. Greene, 2005, "Predicted Storm Surge Inundation Boundaries: SLOSH Modeling with LIDAR-derived DEMs – Phase II", *NASA Earth Science Enterprise, Applied Sciences Directorate, Univ. of South Carolina Affiliated Research Center* Final Report, NASA: Stennis Space Center, MS, 29 pages.
- Stephen, F.M., *et al.* and J.A. Tullis, 2005, "Development of Geospatial Techniques for the Prediction and Assessment of Red Oak Decline Due to Red Oak Borer", *USDA Forest Service Forest Health Monitoring Program, Evaluation Monitoring Project* Technical Report, USDA Forest Service: Atlanta, GA, 5 pages.
- Stephen, F.M., *et al.* and J.A. Tullis, 2005, "Assessment, Analysis, and Monitoring of Red Oak Borer Populations", *USDA Forest Service Special Technology Development Program* Technical Report, USDA Forest Service: Asheville, NC, 6 pages.
- Tullis, J.A. and B.E. Gorham, 2006, "ArkansasView Semiannual Report (July-December 2005)", *AmericaView* Report, USGS: EROS Data Center, SD, 6 pages.
- Tullis, J.A., 2006, "Intelligent Knowledge-based Systems for Data Integration" in "New Approaches to the Use and Integration of Multi-sensor Remote Sensing for Historic Resource Identification and Evaluation", *Strategic Environmental Research and Development Program (SERDP)* Final Report by K.L. Kvamme, E. Ernenwein, M. Hargrave, T. Sever, D. Harmon, W.F. Limp, B. Howell, M. Koons and J.A. Tullis (2006), DOD, 13 pages.
- Stephen, F.M., *et al.* and J.A. Tullis, 2006, "Development of Geospatial Techniques for the Prediction and Assessment of Red Oak Decline Due to Red Oak Borer", *USDA Forest Service Forest Health Monitoring Program, Evaluation Monitoring Project* Technical Report, USDA Forest Service: Atlanta, GA, 8 pages.
- Stephen, F.M., *et al.* and J.A. Tullis, 2006, "Assessment, Analysis, and Monitoring of Red Oak Borer Populations", *USDA Forest Service Special Technology Development Program* Technical Report, USDA Forest Service: Asheville, NC, 9 pages.
- Tullis, J.A. and B.E. Gorham, 2007, "ArkansasView Semiannual Report (July-December 2006)", *AmericaView* Report, USGS: EROS Data Center, SD, 11 pages.

- Gorham, B.E. and J.A. Tullis, 2007, "Arkansas Land Use and Land Cover (LULC) 2006", *Arkansas Natural Resource Commission* Final Report, Arkansas Natural Resource Commission: Little Rock, AR, 5 pages.
- Tullis, J.A. and B.E. Gorham, 2008, "ArkansasView Semiannual Report (July-December 2007)", *AmericaView* Report, USGS: EROS Data Center, SD, 13 pages.
- Gorham, B.E. and J.A. Tullis, 2009, "ArkansasView Semiannual Report (July-December 2008)", *AmericaView* Report, USGS: EROS Data Center, SD, 19 pages.
- Tullis, J.A., 2009, "A Metadata View of Refcruz", *Ecosystem Thematic Network* Final Report & User's Manual, Interamerican Biodiversity Information Network (IABIN): Panama City, Panama, 18 pages.
- Tullis, J.A., 2009, "A LIDAR-derived, Hydrologically Enforced Digital Elevation Model of the Bayou Meto Watershed Area: a Draft 9 km² DEM in the Carlisle Quadrangle", *Arkansas Natural Resource Conservation Service* Progress Report, USDA: Little Rock, AR, 9 pages.
- Asam, S., Z. Andereck, J.A. Tullis *et al.*, 2009, "Improving Land Use / Land Cover Maps in Central America through a Ground-based Data Collection Program", *ICF International* Final Report, USEPA: Washington, D.C., 77 pages.
- Asam, S., E. Rowen and J.A. Tullis, 2010, "Guide to Developing Land Use/Land Cover Maps for Greenhouse Gas Inventories", *ICF International* Report, USEPA: Washington, D.C., 36 pages.
- Gorham, B.E. and J.A. Tullis, 2010, "ArkansasView Annual Report (2008-2009)", *AmericaView* Report, USGS: EROS Data Center, SD, 9 pages.
- Apon, A. *et al.*, J.A. Tullis, 2010, "Cyberinfrastructure for Transformational Scientific Discovery", *NSF CI-TRAIN* Report Sections on Activities and Findings, NSF: Washington, D.C., 43 pages.
- Tullis, J.A. and B.E. Gorham, 2011, "ArkansasView Annual Report (2009-2010)", *AmericaView* Report, USGS: EROS Data Center, SD, 18 pages.
- Stephen, F.M. and J.A. Tullis, 2011, "Applied Silvicultural Assessment of Upland Oak-Hickory Forests and the Red Oak Borer in the Ozark and Ouachita Mountains of Arkansas (2009-2011)", *USFS Southern Research Station* Final Report, USFS: Asheville, NC, 5 pages.
- Tullis, J.A. and B.E. Gorham, 2012, "ArkansasView Annual Report (2010-2011)", *AmericaView* Report, USGS: EROS Data Center, SD, 14 pages.
- Tullis, J.A. and B.E. Gorham, 2013, "ArkansasView Annual Report (2011-2012)", *AmericaView* Report, USGS: EROS Data Center, SD, 13 pages.
- Stephenson, S.L. and J.A. Tullis, 2013, "General Spatial Patterns of Various Soil Parameters Across the Landscape at Pea Ridge National Military Park", *National Park Service* Report, NPS: Pea Ridge National Military Park, AR, 22 pages.
- Tullis, J.A. and B.E. Gorham, 2013, "ArkansasView Annual Report (2012-2013)", *AmericaView* Report, USGS: EROS Data Center, SD, 10 pages.
- Tullis, J.A., 2014, "ALU Geospatial Interconnect (ALUINT) 1.0: Primer for Linking Geospatial Climate, Soils, and Land Use/Land Cover Data to the Agriculture and Land Use National Greenhouse Gas Inventory (ALU) Software", *ICF International* Report, USEPA: Washington, D.C., 22 pages.
- Tullis, J.A. and B.E. Gorham, 2015, "ArkansasView Annual Report (2013-2014)", *AmericaView* Report, USGS: EROS Data Center, SD, 13 pages.

Tullis, J.A., 2015, “ArkansasView Annual Report (2014-2015)”, *AmericaView* Report, USGS: EROS Data Center, SD, 14 pages.

TEACHING

University of South Carolina

Digital Techniques of Remote Sensing Laboratory (GEOG 751 Lab; Fall 2001, Spring 2003).

Principles of Remote Sensing (GEOG 551; Spring 2002).

Principles of Remote Sensing Laboratory (GEOG 551 Lab; Spring 2002, Fall 2003).

University of Arkansas

Introduction to Raster GIS (ANTH/GEOG 4553; Fall 2004).

Remote Sensing of Natural Resources (GEOS 5423; Spring 2005, 2007, 2010, 2012, 2014, 2016).

Principles of Remote Sensing (GEOS 4413; Fall 2005-2015).

Vector GIS (ANTH 4563/GEOS 4583; Spring 2006, 2008-2015).

GIScience in Biogeography (GEOG 510V; Spring 2009).

Seminar in GIScience and Remote Sensing (GEOG 510V; Spring 2011, 2013).

Seminar in Geoinformatics (GEOS 5003; Spring 2015).

[*Individual Studies in GIScience*] (ENDY/GEOS variable; Summer 2006, Fall 2006, Spring 2008, Spring 2011, Fall 2012, Fall 2013, Fall 2014, Spring 2016).

Geospatial Unmanned Aircraft Systems (UAS) with Drs. Fred Limp and Jack Cothren (GEOS 510V; Fall 2016).

GRADUATE STUDENT MENTORING

Advisees who Completed their Degree

Katherine S. Auld Coleman (M.S. Geology), “A Classification of Closed Depression Types on Mars” (Aug 2006).

Jason M. Defibaugh y Chávez (Ph.D. Environmental Dynamics), “Forest Structure Monitoring with Small Footprint LIDAR-optimized Spectral Remote Sensing” (Dec 2009).

Joshua S. Jones (M.A. Geography), “Detecting Decadal Forest Canopy Change During a Native Insect Outbreak in the Ozark National Forest, Arkansas” (Aug 2010).

Karl A. Lintvedt (M.A. Geography), “Analyzing Spring Freeze Impacts on Deciduous Forest Productivity Using MODIS Satellite Imagery” (Dec 2011).

Roberto D. Fernández Torres (M.A. Geography), “Assessment of Land Use Suitability Based on Water Erosion Susceptibility in Medium-sized Urban Areas of the Metropolitan Region of Santiago, Central Chile” (May 2012).

Sean G. Young (M.A. Geography), “Landscape Epidemiology and Machine Learning: A Geospatial Approach to Modeling West Nile Virus Risk in the United States” (May 2013).

Brian E. Bunker (M.A. Geography), “Classification of Satellite Time Series-derived Land Surface Phenology Focused on the Northern Fertile Crescent” (May 2013).

Tareefa S. Alsumaiti (Ph.D. Environmental Dynamics), “Structure, Aboveground Biomass, and Soil Characterization of *Avicennia marina* in Eastern Mangrove Lagoon National Park, Abu Dhabi” (Dec 2014).

Bowei Xue (M.A. Geography), “Lidar and Machine Learning Estimation of Hardwood Forest Biomass in Mountainous and Bottomland Environments” (Aug 2015).

Rachel F. Linck (M.S. Geography), “Geospatial Workflows and Trust: A Use Case for Provenance” (Dec 2015).

Weston P. Murch (M.S. Geography), “Lidar-assisted Extraction of Old Growth Baldcypress Stands Along the Black River of North Carolina” (Aug 2016).

Thesis and Dissertation Committee Service Completed

Michael S. Sarhan (M.A. Geography), “A Comparative Assessment of the Flooding Caused by Tropical Storm Jeanne in Haiti and the Dominican Republic” (Aug 2006).

Philip D. Tonimoto (Ph.D. Environmental Dynamics), “Advances in Biogeographic Modeling of Montane-obligate Avifauna in Mesoamerica” (Dec 2006).

Mark D. Spond (M.A. Geography), “Ancient Cypress-Tupelo Forest at the Dagmar Wildlife Management Area, Arkansas” (May 2007).

John V. Ward (Ph.D. Environmental Dynamics), “Changing Patterns of Land-use and Basin Morphometry: Impacts on Stream Geomorphology in the Illinois River Basin, Northwest Arkansas, 1941-2004” (Jul 2007).

Aaron D. Jensen (M.A. Geography), “Remote Sensing Analysis of Surface Temperature and Landscape Feature Dynamics” (Aug 2007).

Rana N. Al-Jawarneh (M.A. Geography), “Spatial Analysis of Land Cover and Land Use in Evaluating Land Degradation in Northwestern Al-Mafraq City, Jordan” (May 2008).

John J. Riggins (Ph.D. Entomology), “Remote Sensing of Forest Decline and *Enaphalodes Rufulus* Outbreak in the Arkansas Ozarks, U.S.A.” (Jul 2008).

Jason Patton (Ph.D. Environmental Dynamics), “Comparative Sedimentation and Geochemistry of Three Coves, Beaver Reservoir, Northwest Arkansas” (Aug 2008).

Kwasi Asante (M.A. Geography), “Adapting the TerraHawk Remote Sensing System for Mapping” (Aug 2009).

Katie M. Simon (M.A. Anthropology), “Archaeological Survey from Space? An Investigation of Archaeological Spectral Signatures in High-resolution Multispectral Satellite Imagery at Burro Point, Colorado” (Dec 2009).

Obadiah Kegege (Ph.D. Space and Planetary Sciences), “Design and Verification of Integrated Reconfigurable Driver and Current Sensor for Extreme Cryogenic Space Applications” (Dec 2009).

Chris Rogers (M.S. Crop, Soil, and Environmental Sciences), “The Role of Fluvial Sediments in Modifying Phosphorus Export from the Upper Illinois River Watershed, Arkansas” (May 2010).

Khameis M. Abdouli (M.A. Geography), “Tsunami Risk Assessment Using Geomatics in Fujairah City, United Arab Emirates” (May 2010).

Karl C. Cerny (M.A. Geography), “A Frontier Stand of Shortleaf Pine in the Old-Growth Cross Timbers of Eastern Oklahoma” (May 2010).

Owen O. Mpedi (M.A. Geography), “Remote Sensing-assisted Landslide Detection After the 2007 Pisco, Peru Earthquake” (May 2011).

David Blackburn (Ph.D. Space and Planetary Sciences), “An Analysis of the Stability and Transport of CO₂ on Mars and Iapetus: Increasing Accuracy via Experiments and Photometry” (May 2011).

David McFee (M.A. Geography), “An Alternate Approach to Ecosystem Mapping: Fusing Orthoimagery with Landsat Etm+ Imagery for an Object-based Classification, South Eastern Arkansas” (Aug 2011).

Kelly Howe (M.S. Space and Planetary Sciences), “Experimental Simulation of Dark Slope Streaks on Mars” (Dec 2011).

Jose R. Alas Baños (M.A. Geography; May 2012).

Patricia Gavin (Ph.D. Space and Planetary Sciences), “Stability of Phyllosilicates on Mars” (Jun 2012).

Clinton M. Wood (Ph.D. Civil Engineering), “Field Investigation of Topographic Effects Using Mine Seismicity” (Aug 2012).

Aaron T. Lingelbach (M.A. Geography), “Classification of Sinkholes and Other Depressions from LIDAR Data in North Central Arkansas, USA” (Sep 2012).

Felix C. Wasiak (Ph.D. Space and Planetary Sciences), “Exploring the Surface Liquid and Lake Regions of Titan with Laboratory Experimentation and Cassini Spacecraft Data” (Dec 2012).

Carey R. Minter (Ph.D. Entomology), “The Biological Control of Spotted Knapweed in the Southeastern United States” (Dec 2012).

Benjamin G. Hancock (M.A. Geography; May 2013).

Patrick R. Smith (M.A. Physics), “Introductory High School Physics: A Project and Problem Solving Based Approach” (Jun 2013).

Marie-therese Enga (Ph.D. Space and Planetary Sciences; Aug 2013).

Anne E. Khodabandeh (M.S. Space and Planetary Sciences; Aug 2013).

Katherine S. Auld (Ph.D. Space and Planetary Sciences), “Classification and Simulation of Gullies on Mars” (Apr 2014).

Christopher Angel (Ph.D. Environmental Dynamics; Dec 2013).

Andie K. Duplantis (M.A. Geography; Summer 2014).

Josue N. Leiva Lopez (M.S. Horticulture), “Use of Remote Imagery and Object-based Image Methods to Count Plants in an Open-field Container Nursery” (Dec 2014).

Doug R. Leasure (Ph.D. Biological Sciences), “Applications of a New Geodata Crawler for Landscape Ecology: From Mapping Natural Stream Hydrology to Monitoring Endangered Beetles” (Dec 2014).

Dawn Farver (Ph.D. Civil Engineering), “Development of a Hydrologic Model for an Urban Headwater Stream: The Influence of Pervious Surface Properties on Runoff Dynamics” (Dec 2014).

Laura K. Ahrens (M.A. Geography), “Recreational Risk Assessment Using Geospatial Analyses on Beaver Lake, Arkansas” (Dec 2014).

Eric R. Hearth (M.S. Biological Sciences), “A Microhabitat Assessment of Five Species of Invasive Plants in the Ozarks and Appalachians” (May 2015).

Jordan N. Burns (M.A. Geography), “Mapping Ancient Baldcypress Forests for Conservation at Black River, North Carolina” (May 2015).

Sandeep Singh (Ph.D. Space and Planetary Sciences), “Solubility and Detectability of Hydrocarbons on the Surface of Titan” (Jun 2015).

Cari E. Sebright (M.S. Biological Sciences), “Spring Migration Ecology of American Woodcock (*Scolopax minor*) in the Central Management Region of the United States” (Jul 2015).

Vance Green (M.S. Geography), “Towards Systematic Selection of Terrain- and Ground Cover-Specific LiDAR Filtering Parameters” (Dec 2015).

John A. Herbert (M.S. Biological Sciences), “The Abundance and Distribution of Mallards in the Mississippi Alluvial Valley of Arkansas” (Dec 2015).

Brandy Garrett Kluthe (Ph.D. Environmental Dynamics – Fall 2012 to Fall 2015), “Eucalyptus in Kenya: Impacts on Environment and Society” (Mar 2016).

Current Advisement

Josef O. Lilly (M.S. Geography – Spring 2014 to Summer 2016), “A GIS Approach to Modeling Groundwater Levels in the Mississippi River Valley Alluvial Aquifer”.

Benjamin R. Tracy (M.S. Geography – Spring 2015 to Fall 2016).

Sarah Gray (M.S. Geography – Fall 2015 to Spring 2017).

Richard Rhodes (M.S. Geography – Fall 2015 to Spring 2017).

Joseph Jordan (M.S. Geography – Fall 2015 to Spring 2017).

Current Thesis and Dissertation Committee Service

Dorine R. Bower (Ph.D. Environmental Dynamics – Fall 2010 to Summer 2016).

Michelle E. Morefield (M.A. Geography – Fall 2012 to Summer 2016).

Cyrus D. Garner (Ph.D. Civil Engineering - Fall 2013 to Summer 2016), “Development of a Multiband Remote Sensing System for Determination of Unsaturated Soil Properties”.

Joe Moore (M.S. Biological Sciences – Fall 2014 to Summer 2016), “Migration Ecology of American Woodcock Based on Satellite Telemetry”.

Hafid Nanis (Ph.D. Geosciences – Spring 2015 to Fall 2017).

Zachary Starr (Ph.D. Biological Sciences – Fall 2015 to Spring 2018).

Jamey Voorhees (M.S. Geography – Fall 2015 to Spring 2017).

Ben Galloway (M.S. Geography – Fall 2014 to Summer 2016), “Scandinavian Social Welfare Systems and their Application to Other Populations”.

Jeremy G. Menzer (Ph.D. Environmental Dynamics – Fall 2015 to Spring 2019).

Sean E. Salazar (Ph.D. Civil Engineering – Spring 2014 to Spring 2018).

Curt Hall (Ph.D. Environmental Dynamics – Fall 2015 to Spring 2018).

Aaron M. Shew (Ph.D. Environmental Dynamics – Fall 2013 to Spring 2018).

Jacob McClain (M.S. Biological Sciences – Fall 2015 to Spring 2017).

OTHER MENTORING

Julia Danz (Dept. of Geosciences; *National Science Foundation REU* participant), analyzed a variety of Central American land cover maps, Summer 2005.

Zack D. Smith (Arkansas Center for Space and Planetary Sciences; *National Science Foundation REU* participant), investigated Martian geology, Summer 2005.

Luis Malfavon (Univ. of Arkansas; *U.S. Dept. of Education Upward Bound* participant), investigated planetary remote sensing and GIS, Summer 2005.

Jonathan P. Knapp (Dept. of Geosciences; *National Science Foundation REU* participant), “Applying Remote Sensing to Northern Red Oak Decline in the Ozark National Forest: Preliminary Methods Evaluation”, Summer 2006.

Adam W. Rollins (Dept. of Biological Sciences; *Arkansas Space Grant Consortium* participant), “Spatial and Temporal Dynamics of Red Spruce Population in the Central Appalachians”, Apr 2007 to Apr 2008.

Daniel Sundara (Univ. of Arkansas; *U.S. Dept. of Education Upward Bound* participant), investigated the geoweb and geospatial visualization, Summer 2007.

Group of 14 students (Center for Space and Planetary Sciences; *National Science Foundation REU* participants), visited astromaterials laboratories in the *NASA Johnson Space Center*, Houston, TX, 27-30 Jun 2010.

Annie E. Wintzer, Graham S. Smith, Marie-therese Enga, FNU Singh Sandeep, and Michael Fusco (Center for Space and Planetary Sciences; *SPAC Lab Project*), mentored students in individual GIS and remote sensing-based projects for investigation of planetary surfaces, Aug 2010-Dec 2013.

Group of 16 students (Center for Space and Planetary Sciences; *National Science Foundation REU* participants), visited remote sensing and astromaterials laboratories in the *NASA Johnson Space Center*, Houston, TX, 11-14 Jun 2011.

Group of 12 students (Center for Space and Planetary Sciences; *National Science Foundation REU* participants), visited astromaterials and International Space Station-related remote sensing laboratories in the *NASA Johnson Space Center*, Houston, TX, 26-29 Jun 2012.

Steven F. Sholes (Center for Space and Planetary Sciences; *National Science Foundation REU* participant), “Object-based Image Analysis for Remote Sensing of Planetary Surfaces”, Summer 2012.

John W. Magugu, Matthew Peck, Rashauna Hintz, and Craig A. Jauch; served on graduate advisory-only (not thesis or dissertation) committees, Aug 2012-May 2014.

Kaitlyn E. Hurlbut (Fulbright College Honors Program; *Geography Honors* advisee), Jan-Dec 2014.

Julie Terhune (Fulbright College Honors Program; *Geography Honors* advisee), Apr 2016 to present.

CONTRACTS & GRANTS

- Raber, G.T., J.A. Tullis (course fellow) and J.R. Jensen, “A Geospatial Primer”, *Institute for Advanced Education in Geospatial Sciences*, 31 Aug 2004 to 2 Aug 2005, **\$80,000**.
- Tullis, J.A. (principal investigator) and B. Gorham, “Arkansas Land-use / Land-cover Mapping with Machine Learning Decision Trees”, *Arkansas Soil and Water Conservation Commission*, 1 Nov 2004 to 31 May 2005, **\$46,411**.
- Limp, W.F., B.E. Gorham and J.A. Tullis (senior investigator beginning Sep 2004), “ArkansasView: Expanding the Use and Value of Remote Sensing through Education, Research, and Outreach”, *US Geological Survey & AmericaView*, 1 Jul 2004 to 5 Jun 2005, **\$89,496**.
- Stephen, F.M., W.F. Limp, J.A. Tullis (senior investigator beginning Sep 2004) and J. Wilson, “Development of Geospatial Techniques for the Prediction and Assessment of Red Oak Decline Due to Red Oak Borer”, *USDA Forest Service*, 30 Jun 2004 to 30 Sep 2008, **\$35,000**.
- Stahle, D.W. and J.A. Tullis (co-principal investigator), “The Distribution of Cross Timbers in Western Arkansas”, *USDA Forest Service*, 1 Apr 2004 to 31 Dec 2010, **\$11,019**.
- Limp, W.F., J.D. Cothren, J.A. Tullis (senior investigator beginning Oct 2004), *et al.*, “An Enterprise Geospatial Architecture and Development of Automated Analysis Methodologies for Central American Carbon Sequestration Analysis”, *NASA*, Jul 2003 to Sep 2006, **\$315,513**.
- Tullis, J.A. (principal investigator), K.F. Steele and G.T. Raber, “Search for Martian Sinkholes”, *NASA and Arkansas Center for Space and Planetary Sciences*, 1 May 2005 to 30 Apr 2006, **\$29,290**.
- Stephen, F.M., *et al.* and J.A. Tullis (senior investigator beginning May 2005), “Applied Silvicultural Assessment of Upland Oak-Hickory Forests and the Red Oak Borer in the Ozark and Ouachita Mountains of Arkansas”, *USDA Forest Service*, 2005 to 2006, **\$249,042**.
- Kvamme, K., W.F. Limp, T. Sever, M. Hargrave *et al.* and J.A. Tullis (senior investigator beginning Jul 2005), “New Approaches to Use of Integration of Multi-sensor Remote Sensing”, *US Dept. of Defense*, 18 Jun 2002 to 15 Dec 2005, **\$840,000**.
- Limp, W.F., J.A. Tullis (co-principal investigator) and B.E. Gorham, “ArkansasView: Expanding the Use and Value of Remote Sensing through Education, Research, and Outreach”, *US Geological Survey & AmericaView*, 1 Jul 2005 to 30 Jun 2006, **\$89,500**.
- Tullis, J.A. (principal investigator), B.E. Gorham, W.F. Limp and R.K. Davis, “Arkansas Land Use and Land Cover 2006”, *Arkansas Natural Resource Commission*, 1 Oct 2005 to 31 May 2007, **\$62,188**.
- Stephen, F.M., M.K. Fierke and J.A. Tullis (co-principal investigator), “Applied Silvicultural Assessment (II) of Upland Oak-Hickory Forests and the Red Oak Borer in the Ozark and Ouachita Mountains of Arkansas”, *USDA Forest Service*, 1 Oct 2006 to 30 Sep 2011, **\$220,000**.
- Rollins, A.W., Stephenson, S.L. and J.A. Tullis (participant), “Spatial and Temporal Dynamics of Red Spruce Populations in the Central Appalachians”, *NASA*, 15 Apr 2007 to 14 Apr 2008, **\$2,382**.
- Inlander, E.M., Slay, M.E., Brahana, J.V., Tullis, J.A. (participant), *et al.*, “The Karst Conservation Toolbox: Advancing the Protection of Karst Species and Habitats Globally”, *The Nature Conservancy*, 1 Jul 2007 to 30 Jun 2009, **\$50,000**.

- Stephen, F.M. and J.A. Tullis (co-principal investigator), “Applied Silvicultural Assessment (III) of Upland Oak-Hickory Forests and the Red Oak Borer in the Ozark and Ouachita Mountains of Arkansas”, *USDA Forest Service*, 18 Sep 2007 to 15 Sep 2012, **\$205,000**.
- Tullis, J.A. (technical adviser), “Improving Land-Use/Land Cover Maps in Central America through a Ground-based Data Collection Program”, *U.S. EPA & ICF International*, 5 May 2008 to 1 Dec 2009, **\$23,120**.
- Tullis, J.A. (principal investigator), “Machine Learning-assisted Terrestrial Ecosystem Classification Schema ‘Cross-walks’ for Central and South America”, *Organization of American States & Inter-American Biodiversity Information Network*, 8 Sep 2008 to 10 Mar 2009, **\$15,000**.
- Cothren, J.D., W.F. Limp and J.A. Tullis (senior investigator beginning Apr 2009), “A LIDAR-derived, Hydrologically Enforced Digital Elevation Model of the Bayou Meto Watershed Area”, *USDA Natural Resource Conservation Service*, 19 Sep 2008 to 30 Sep 2010, **\$60,000**.
- Tullis, J.A. (peer reviewer), “Lifecycle Analysis of Greenhouse Gas Emissions from Renewable Fuels”, *U.S. EPA & ICF International*, 1 May 2009 to 30 Sep 2009, **\$2,000**.
- Cox, B., J.D. Cothren *et al.* and J.A. Tullis (participant), “The M8.0 Pisco Peru Earthquake – A Benchmark Ground Failure Event for Remote Sensing and Data Archiving”, *NSF*, Jul 2009 to Dec 2010, **\$177,064**.
- Apon, A., W.F. Limp, S. Ramaswamy, L. Bellaiche, D. Spearot *et al.* and J.A. Tullis (senior investigator), “Collaborative Research: Cyberinfrastructure for Transformational Scientific Discovery in Arkansas and West Virginia (CI TRAIN)”, *NSF*, 1 Sep 2009 to 31 Aug 2012, **\$3,370,951**.
- Tullis, J.A. (principal investigator) and B.E. Gorham, “ArkansasView: Expanding the Use and Value of Remote Sensing through Education, Research, and Outreach”, *US Geological Survey & AmericaView*, 1 Jul 2006 to 30 Jun 2013, **\$254,441**.
- Kring, T.J., F.M. Stephen, R.W. Wiedenmann and J.A. Tullis (participant), “Biological Control of Spotted Knapweed in the Southeastern US”, *US Forest Service*, 17 May 2010 to 16 May 2012, **\$75,000**.
- Apon, A., J.D. Cothren, M.O. El-Shanawee, P. Pulay, D.E. Spearot *et al.* and J.A. Tullis (senior investigator), “MRI-R2: Acquisition of an Integrated Instrument for Computational Research and Education”, *NSF*, 1 Jan 2010 to 31 Dec 2012, **\$900,000**.
- Tullis, J.A. (technical advisor), “Capacity Building for National GHG Inventory Systems in Developing Countries”, *U.S. EPA & ICF International*, Dec 2010 to Dec 2016, **\$46,356**.
- Casana, J.J., J.D. Cothren and J.A. Tullis (co-principal investigator), “Settlement Systems and Environmental Change in the Northern Fertile Crescent”, *NASA*, 1 Jul 2010 to 30 Jun 2014, **\$310,976**.
- Tullis, J.A. (principal investigator) and A. Barnes, “A Geospatial Framework for Underbuilt Community Water System Decision Support”, *Community Resource Group*, 1 Jul 2014 to 30 Sep 2014, **\$5,140**.
- Stephenson, S.L., H. Tran and J.A. Tullis (participant), “Production of Biodiesel from *Physarum polycephalum*”, *University of Arkansas*, Provost’s Collaborative Research Grants, 3 Nov 2014 to 30 Jun 2015, **\$1,500**.
- Tullis, J.A. (principal investigator) and B.E. Gorham, “National Land Remote Sensing Education Outreach and Research Activity: StateView Program Development and Operations for the State of Arkansas”, *US Geological Survey & AmericaView*, 1 Dec 2013 to 31 Aug 2015, **\$49,573**.
- Cothren, J.D., W.F. Limp and J.A. Tullis (participant), “Certificate of Proficiency in Geospatial Technologies”, *University of Arkansas Global Campus*, 2014-2016, **\$60,000**.

- Tullis, J.A. (principal investigator) and A. Barnes, “A Geospatial Framework (II) for Underbuilt Community Water System Decision Support”, *Communities Unlimited*, 1 Oct 2014 to 31 Mar 2015, **\$15,653**.
- Tullis, J.A. (principal investigator) and J.D. Cothren, “Geospatial Internship for Underbuilt Community Decision Support”, *Communities Unlimited*, 1 Jan 2015 to 31 Dec 2016, **\$43,223**.
- Tullis, J.A. (principal investigator) and M. Aly, “National Land Remote Sensing Education Outreach and Research Activity: StateView Program Development and Operations for the State of Arkansas”, *US Geological Survey & AmericaView*, 1 Jul 2015 to 30 Jun 2017, **\$47,000**.
- Tullis, J.A. (technical adviser), “SERVIR Land Cover and Land Use Change Mapping and Monitoring Technical Assessment Group”, *NASA & USAID*, 1 Jul 2016 to 30 Sep 2016 **\$10,490**.

AWARDS & HONORS

- Awarded a *U.S. Dept. of Agriculture Certificate of Merit* twice for initiative and success in conducting the Uinta Oak Fuels Analysis fire ecology project, U.S. Forest Service, Pleasant Grove, UT (1996 – 1997).
- Invited to discuss forestry applications of remote sensing with Teddy Reynolds and Jackson Cothren on *Timber Talk*, a live radio interview broadcast over 59 counties or parishes in Arkansas, Louisiana, Oklahoma, and Texas, from 100.5 FM KZHE, Magnolia, AR (Jan 2005).
- Received *commendation from USAID and NASA officials* for success in leading the Spanish language “Land Use / Land Cover Change Detection for Central American Carbon Management” workshop for eighteen representatives from across Central America, City of Knowledge, Panama (Oct 2005).
- Invited to discuss LIDAR-assisted forestry assessment related to the red oak borer with Jacqueline Froelich and Fred Stephen on *Ozarks at Large*, a weekly radio broadcast from 91.3 FM KUAF *National Public Radio*, Fayetteville, AR (Mar 2007).
- Invited to contribute with 40 scientists and engineers in the *National Science Foundation* workshop entitled “Bridging the Cyber, Physical and Social Worlds”, Kansas City, MO (May 2009).
- Invited by the *Intergovernmental Panel on Climate Change (IPCC) Task Force on National Greenhouse Gas Inventories* to contribute to the “IPCC Expert Meeting on National Forest GHG Inventories – a Stock Taking”, Yokohama, Japan (23-25 Feb 2010).
- First place co-recipient of two *American Society for Photogrammetry and Remote Sensing (ASPRS)* awards, including the 2010 *John I. Davidson President’s Award for Practical Papers* and the 2010 *ESRI Award for Best Scientific Paper in Geographic Information Systems* for “A Remote Sensing and GIS-assisted Spatial Decision Support System for Hazardous Waste Site Monitoring”, *Photogrammetric Engineering and Remote Sensing* 75(2):169-177, co-authored with J.R. Jensen, M.E. Hodgson, M. García-Quijano and J. Im (Mar 2010).
- Recognized with the *Robert T. Gast Award for Best Ph.D. Research Paper* for “The Feasibility of Using Remote Sensing to Monitor Spotted Knapweed Biological Control Programs”, *Joint Meeting of the Southeastern and Southwestern Branches of the Entomological Society of America*, 4-7 Mar, 2012, Little Rock, AR, co-authored with C. Minter and T.J. Kring (Mar 2012).
- Invited by the *IPCC Task Force on National Greenhouse Gas Inventories* to contribute to the “IPCC Expert Meeting: Role of Remote Sensing (RS) in Forest and National GHG Emission Inventories”, Hayama, Japan (23-25 Oct 2012).
- Received proposal review *Service Award* from *AmericaView* (Feb 2014).

- Recognized with ten-year *Faculty Service Award* by the *J. William Fulbright College*, University of Arkansas, Fayetteville, AR (Jul 2014).
- Invited by *SERVIR*, a joint *NASA – U.S. Agency for International Development (USAID)* program operating in more than 30 countries, to chair the five-member “SERVIR Technical Assessment Group for Land Cover and Land Use Change Mapping and Monitoring Products and Services for the SERVIR Regions” (Jun 2016).
- Nominated through *U.S. Department of State*, and invited by the *IPCC Task Force on National Greenhouse Gas Inventories* to contribute to the “IPCC Scoping Meeting for a Methodology Report(s) to Refine the 2006 IPCC Guidelines for National Greenhouse Gas Inventories”, 29-31 Aug, 2016, Minsk, Belarus (Jul 2016).

PROFESSIONAL SERVICE & ACTIVITIES

Editorial and Peer Review Service

- Served as the Associate Editor of *GIScience & Remote Sensing* published by Bellwether (Jan 2010 to Dec 2012).
- Served on the editorial board of *GIScience & Remote Sensing* published by Taylor & Francis (Jan 2013 to present).
- Served on the editorial board for the GIS & Earth Observation section of *Geography Compass* published by Wiley (Jun 2007 to present).
- Invited to serve on the editorial board of *AIMS Environmental Science* published by American Institute of Mathematical Sciences (AIMS) Press (Sep 2014).
- Invited to serve on the editorial board of *AIMS Geosciences* published by the American Institute of Mathematical Sciences (AIMS) Press (Apr 2016).
- Reviewed 20 manuscripts for *GIScience & Remote Sensing* published by Bellwether through 2012 and subsequently by Taylor & Francis (Mar 2004, Apr 2004, Nov 2004, Sep 2005, Jan 2006, Jun 2006, Oct 2006, May 2008, Jul 2008, Jan 2009, May 2009, Apr 2013, Sep 2013, Nov 2013, Dec 2013, Aug 2014, Oct 2014, Nov 2015, Apr 2016).
- Reviewed 12 manuscripts for *Photogrammetric Engineering & Remote Sensing* published by the American Society for Photogrammetry & Remote Sensing (Feb 2008, Oct 2008, May 2009, Aug 2009, Sep 2009, Jul 2010, Dec 2010, Jan 2012, Jun 2012, Oct 2014, Jan 2015, May 2015).
- Reviewed seven manuscripts for *Remote Sensing* published by Multidisciplinary Digital Publishing Institute or MDPI (Feb 2013, Dec 2013, Feb 2014, Jun 2014, Nov 2014, Oct 2015, Mar 2016).
- Reviewed four manuscripts for *Geography Compass* published by Blackwell (Dec 2007, Feb 2008, Nov 2008, Mar 2011).
- Reviewed a manuscript for *Physical Geography* published by Bellwether (Jan 2009).
- Reviewed a manuscript for *Remote Sensing of Environment* published by Elsevier (Jun 2009).
- Reviewed two manuscripts for *Geocarto International* published by Taylor & Francis (Apr 2011, May 2016).
- Reviewed a manuscript for *Applied Geography* published by Elsevier (Jul 2013).
- Reviewed a manuscript for *International Journal of Applied Earth Observation and Geoinformation* published by Elsevier (Apr 2014).

- Reviewed a manuscript for *Computers, Environment and Urban Systems* published by Elsevier (Dec 2003).
- Reviewed a manuscript for *Environmental Science & Policy* published by Elsevier (Jul 2009).
- Reviewed a manuscript for *Land* published by Multidisciplinary Digital Publishing Institute (Aug 2015).
- Reviewed a manuscript for *SpringerPlus* published by Springer (Feb 2016).
- Reviewed “Topographic Laser Ranging and Scanning: Principles and Processing” by Ji Shan and Charles K. Toth (Eds.), published by CRC Press (May 2009).
- Reviewed “Introductory Digital Image Processing: A Remote Sensing Perspective” manuscript by John R. Jensen, 4th Ed., to be published by Pearson Prentice Hall (Jul 2013).
- Invited to review a manuscript for *International Journal of Environmental Research and Public Health* published by Multidisciplinary Digital Publishing Institute or MDPI (Apr 2016).
- Invited to review a manuscript for *Sustainability* published by Multidisciplinary Digital Publishing Institute or MDPI (May 2016).
- Reviewed a manuscript for *Journal of East Asian Studies* published by Cambridge University Press (May 2016).

Program Review and Development

- Led the *ArkansasView* consortium (<https://arkansasview.org/>) to develop and promote remote sensing and geospatial capacity within Arkansas (Jul 2006 to present).
- Completed Project Manager training sponsored by the *International Charter on Space and Major Disasters*, Sioux Falls, SD (Oct 2015).
- Served on a two-day *National Science Foundation* panel under the direction of the *Office of Cyberinfrastructure* (OCI), Washington, D.C. (Dec 2012).
- Invited to serve on a two-day *National Science Foundation* panel for the NSF Research Traineeship (NRT) Program focusing on data-enabled science and engineering (Aug 2014).
- Served on a three-day *NASA Research Opportunities in Space and Earth Sciences (ROSES)* panel, chaired by Applied Sciences Program Manager Woody Turner, Washington, D.C. (Mar 2012).
- Worked with *NASA SERVIR*, *U.S. EPA Climate Change Division*, and *ICF International* to develop GIS and remote sensing-assisted land use / land cover change detection methodologies for capacity building of greenhouse gas monitoring activities in Botswana, Malawi, Rwanda, Mauritius, Namibia, Tanzania, South Africa, and Zambia (Dec 2010 to Jan 2015).
- Appointed to the University of Arkansas *Computing Activities Council (CAC)* by Interim Chancellor Daniel E. Ferritor to represent Dean Todd Shields of the J. William Fulbright College of Arts and Sciences (Fall 2015 to Spring 2018); served as secretary of the *CAC* (Jan 2016 to present), and as a member of the *IT Governance* (Mar 2016 to present) and *Administrative IT* (Apr 2016 to present) subcommittees.
- Served as chair of the *AmericaView Research Committee* organized to build research capacity within the AmericaView organization (Mar 2012 to Jan 2014).
- Reviewed National Sea Grant College Program proposal for consideration by the *Univ. of Puerto Rico Sea Grant* (Sep 2005).

- Co-authored with George T. Raber and John R. Jensen an online course entitled “Geospatial Primer” for *The Institute for Advanced Education in Geospatial Sciences*, Univ. of Mississippi, Oxford, MS (Sep 2004 to Oct 2005).
- Served as Chair of the *Geography Curriculum* (Spring 2011 to present) and *Departmental Personnel* (Spring 2014 to present) committees in the *Dept. of Geosciences* at Univ. of Arkansas.
- Served on the *Geography Learning Outcomes* (Fall 2006 to Spring 2007), *Geography TA Selection* (Fall 2006 to present), *Curriculum* (Spring 2007 to Fall 2010), *Chair Evaluation* (Spring 2008), *Faculty Search* (Fall 2008 to Fall 2009; Fall 2011 to Spring 2013; Fall 2015 to present), *Departmental Personnel* (Spring 2011 to Spring 2014), *Geography Scholarship/Awards* (Spring 2011 to present), *Geosciences PhD Admissions* (Fall 2014 to present), *Chair Review* (Spring 2016), and *MS Geography Course Approval* (Spring 2016 to present) committees in the *Dept. of Geosciences* at Univ. of Arkansas.
- Reviewed proposal for consideration by the *National Science Foundation* program in *Geomorphology and Land-Use Dynamics* (Oct 2006).
- Reviewed proposal for consideration by the *USGS Northern Prairie Wildlife Research Center* (Nov 2007).
- Worked with *Organization of American States* and *Inter-American Biodiversity Information Network* to investigate and review “Machine Learning-assisted Terrestrial Ecosystem Classification Schema ‘Cross-walks’ for Central and South America” (Oct 2007 to Mar 2009).
- Worked with *U.S. EPA Climate Change Division*, *ICF International*, and *NASA SERVIR* to review and advise *in situ* and geoinformatics-based efforts to improve land use / land cover maps for greenhouse gas monitoring in Guatemala, Honduras, El Salvador, Nicaragua, and Costa Rica (Apr 2008 to Nov 2009).
- Reviewed two proposals for consideration by the *National Science Foundation* program in *Geography and Regional Science* (May 2008, Nov 2008).
- Reviewed proposal for an advanced environmental remote sensing textbook being considered by *Springer* (Aug 2008).
- Developed (on behalf of *Organization of American States*) “RefCruz 2009”, a terrestrial ecosystem translator utilized by *NatureServe* in the *Inter American Biodiversity Information Network (IABIN) Ecosystem Thematic Network* to ascertain and map similarities or “crosswalks” between hundreds of ecosystems in South and Central America and Mexico (Sep 2008 to Mar 2009).
- Reviewed “Global GHG Emission Factors for Various Land Use Transitions” prepared by *Winrock International* as part of *U.S. EPA’s* development of the *Lifecycle Analysis of Greenhouse Gas Emissions from Renewable Fuels* (May-Jun 2009).
- Reviewed twenty proposals from remote sensing PIs who as representatives of various states applied for new or continued funding through *AmericaView* and *USGS* (Jun 2008, Jun 2009, Jun 2010, Mar 2011, Oct 2011, Mar 2012, Dec 2013).

Professional Society Service

- Served as *Heartland Region Director* (Jun 2014 to present), *Central Region Director* (Apr 2005 to Mar 2008), and *Central Region Membership Committee Chair* (Aug 2006 to Mar 2008), and on the *Heartland Region Nomination Committee* (Oct 2014 to present) within the *American Society for Photogrammetry and Remote Sensing*.
- Served as *Faculty Mentor* for the *UA Student Chapter of the ASPRS* within the *American Society for Photogrammetry and Remote Sensing* (Feb 2007 to Aug 2008; Sep 2012 to Oct 2015).

- Served as moderator for the “DEM Technologies and Applications: Modeling Surface Roughness, Coastal Movements, and Hurricane Storm Surge” session for the *American Society for Photogrammetry and Remote Sensing* 2005 Annual Convention, Baltimore, MD (Mar 2005).
- Served as moderator for the “Hurricane Katrina” session for the *Southwest Division of the Association of American Geographers* Annual Convention, Fayetteville, AR (Nov 2005).
- Served as moderator for the *American Society for Photogrammetry and Remote Sensing* Central Region Technical Meeting, Fayetteville, AR (Apr 2006).
- Served as moderator for the “Monitoring Natural Hazards” session for the *American Society for Photogrammetry and Remote Sensing* 2006 Annual Convention, Reno, NV (May 2006).
- Served as moderator for the “Applications of Lidar to Forestry” session for the *American Society for Photogrammetry and Remote Sensing* 2007 Annual Convention, Tampa, FL (May 2007).
- Served as moderator for the “Lidar – Forestry Applications” session for the *American Society for Photogrammetry and Remote Sensing* 2008 Annual Convention, Portland, OR (May 2008).
- Served as moderator for the “Global Change / Ecology” session for the *American Society for Photogrammetry and Remote Sensing* 2010 Annual Convention, San Diego, CA (Apr 2010).
- Served as moderator for the “Human Geography” session for the *American Society for Photogrammetry and Remote Sensing* 2013 Annual Convention, Baltimore, MD (Mar 2013).

Invited Papers, Lectures, Presentations, Workshops & Media Interviews

- Presented “The Use of LIDAR and Remotely Sensed Imagery for Mapping Parcel Level Permeability” to NASA officials from *Earth Science Enterprise (ESE)*, Stennis Space Center, MS (Feb 2002).
- Presented “Measurement of Impervious Surfaces for Stormwater Management Applications Using Digital Aerial Imagery, Topographic LIDAR, and LIDAR Intensity Returns” to NASA officials from *Earth Science Enterprise (ESE)*, Stennis Space Center, MS (Feb 2003).
- Presented workshops and a seminar on remote sensor and digital terrain modeling, GIS databases, data mining, and visualization for researchers in the *Dept. of Mathematics*, Univ. of South Carolina, Columbia, SC (Dec 2002, May 2003, Nov 2003).
- Presented workshops on “Principles of Remote Sensing” and “Remote Sensing Information Extraction with Decision Trees” at the *State Mapping Advisory Committee (SMAC)* Biennial Conference, Columbia, SC (Jan 2004).
- Presented “GIS and Remote Sensing for Smart Growth Research – Phase III” and “Predicted Storm Surge Inundation Boundaries: SLOSH Modeling with LIDAR-derived DEMs” to NASA officials from *Earth Science Enterprise (ESE)*, Stennis Space Center, MS (Feb 2004).
- Presented “GIScience for Industry, Government, and the People: Examples in Urban Analysis and Floodplain Modeling” to faculty and students in the *Dept. of Geography*, Ohio Univ., Athens, OH (Feb 2004).
- Presented “GIS Data Mining and Decision Trees” to faculty and students in the *Dept. of Geography & Earth Sciences*, Univ. of North Carolina, Charlotte, NC (Feb 2004).
- Presented “LIDAR Data Mining and Scale Optimized Decision Tree Classification” to faculty and students in the *Dept. of Geography*, Univ. of Iowa, Iowa City, IA (Feb 2004).

- Presented “LIDAR Assisted Land Cover Analysis” to faculty and students in the *Dept. of Geosciences*, Univ. of Arkansas, Fayetteville, AR (May 2004).
- Presented “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, Univ. of Arkansas, Fayetteville, AR (Oct 2004).
- Presented “Expert and Machine Learning Decision Trees” to *Arkansas Soil and Water Conservation Commission* officials, Univ. of Arkansas, Fayetteville, AR (Oct 2004).
- Presented “Hurricane Storm Surge Prediction as a Function of DEM Input: Exploring a LIDAR-derived Alternate” to faculty and students in the *Dept. of Geosciences*, Univ. of Arkansas, Fayetteville, AR (Oct 2004).
- Presented “On the Road to Generic Remote Sensing-assisted Spatial Decision Support Systems” to faculty and students in the *Environmental Dynamics PhD Program*, Univ. of Arkansas, Fayetteville, AR (Nov 2004).
- Presented a 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*, Univ. of Arkansas, Fayetteville, AR (Nov 2004).
- Discussed forestry applications of remote sensing with Teddy Reynolds and Jackson Cothren on *Timber Talk*, a live radio interview broadcast over 59 counties or parishes in Arkansas, Louisiana, Oklahoma, and Texas, from 100.5 FM KZHE, Magnolia, AR (4 Jan 2005).
- Presented “Exploring LIDAR-derived Inputs for Hurricane Storm Surge Models” to faculty and students in the *Dept. of Geography*, Univ. of Southern Mississippi, Hattiesburg, MS (Feb 2005).
- Presented “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).
- Presented “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*, Univ. of Kansas, Lawrence, KS (Feb 2005).
- Presented “Per-segment Classification and Machine Learning Decision Trees” to geospatial community professionals at the *eCognition 2005 International User Meeting*, Baltimore, MD (Mar 2005).
- Presented “Automating & Optimizing Intelligent Knowledge-based Extraction of Land Cover Change” to students and faculty in the *Dept. of Biological Sciences*, Univ. of Arkansas, Fayetteville, AR (Apr 2005).
- Presented “Optimizing Arkansas’ 2004 Land Use / Land Cover Map” to students and faculty in the *Environmental Dynamics PhD Program*, Univ. of Arkansas, Fayetteville, AR (Apr 2005).
- Presented “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 Univ., Pullman, WA (Apr 2005).
- Presented “Overview of Remote Sensing Activities”, posters and graphics featuring remote sensor data processing, and a 3D fly-through over Northwest Arkansas to the chief executives of Leica Geosystems, faculty and students, local officials, and local media as part of the inaugural *Leica Geosystems Center of Excellence* press conference at Univ. of Arkansas (May 2005).
- Presented “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, Univ. of Arkansas, Fayetteville, AR (May 2005).

- Presented “The Search for Martian Sinkholes” with Kenneth F. Steele, Zackery E. Smith, and Luis Malfavon to students and faculty in the *Arkansas Center for Space and Planetary Sciences*, Univ. of Arkansas, Fayetteville, AR (Jul 2005).
- Presented a workshop on LIDAR-assisted hydrologic modeling to staff and affiliated high school students of *Audubon Arkansas* as part of their efforts to raise public awareness on issues surrounding the College Branch watershed, Univ. of Arkansas, Fayetteville, AR (Jul 2005).
- Presented “A Cellular Automata Model for ArcMap” with David J. Cowen, E. Thomas Bramble, Kevin Remington, John R. Jensen, Michael E. Hodgson, W. Lynn Shirley, and Apurva Goyal to geospatial community professionals at the *ESRI 2005 International User Conference*, San Diego, CA (Jul 2005).
- Presented “Overview of Remote Sensing Activities” to *Computer Science and Computer Engineering (CSCE)* faculty at two workshops aimed at developing collaboration between the Center for Advanced Spatial Technologies (CAST) and CSCE, Univ. of Arkansas, Fayetteville, AR (Sep 2005).
- Presented colloquium on “Intelligent Knowledge-based Extraction of Remotely Sensed Variables” to students at the *Arkansas Center for Space and Planetary Science*, Univ. of Arkansas, Fayetteville, AR (Sep 2005).
- Led with John Wilson the five-day Spanish language “Land Use / Land Cover Change Detection for Central American Carbon Management” *USAID-funded NASA SERVIR workshop* for eighteen representatives from across Central America, City of Knowledge, Panama (Oct 2005).
- Presented with John Wilson “Extraction of Polygonal Ridgetop Areas in the Ozark Mountains” to students, faculty, and government officials at the *Mullins Library GIS Day Open House*, Univ. of Arkansas, Fayetteville, AR (Nov 2005).
- Presented with Fred Stephen *et al.* “Monitoring and Predicting Populations of Red Oak Borer in the Ozark Mountains” in the *2006 National Forest Health Monitoring (FHM) Working Group Meeting*, Charleston, SC (Jan-Feb 2006).
- Presented “Extraction of Polygonal Ridgetop Areas in the Ozark Mountains” and “Integration of *In Situ*, Ancillary, and Remote Sensor Databases” to Jim Guldin of *USDA Forest Service Southern Research Station* and ecologists from *Univ. of Missouri* and *Univ. of Kansas*, Lawrence, KS (Mar 2006).
- Assisted members of the *University Wellness Committee*, Tom Paradise, and geoinformatics students in a workshop and data preparation for maps delineating walking and jogging routes on campus, *Univ. of Arkansas*, Fayetteville, AR (Spring 2006).
- Recognized with Jackson D. Cothren and Bruce Gorham for geoinformatics research and development with *NASA*, *USAID*, and *Central American countries*; a news release was posted on *Univ. of Arkansas Daily Headlines*, Fayetteville, AR (Apr 2006).
- Presented, with George T. Raber, “Rapid Assessment of Hurricane Katrina Storm Surge Inundation in Mississippi Utilizing a Cost Weighted Interpolation Approach”, a multimedia map exhibition at the *26th ESRI International User Conference*, San Diego, CA (Aug 2006).
- Presented “Remote Sensing-assisted Decision Support for Red Oak Borer Hazard Response” to *USDA Forest Service* officials and forest entomologists from around the United States at the *East Texas Forest Entomology Seminar*, Nacogdoches, TX (Oct 2006).
- Presented a workshop on “LIDAR Applications for High Throughput Computing (HTC)” to students enrolled in *Computer Science and Computer Engineering Senior Design*, Univ. of Arkansas, Fayetteville, AR (Oct 2006).

- Presented “Automated Processing of 2006 Pictometry Neighborhood Orthogonal Images” and “High Throughput Computation (HTC) of a LIDAR-derived Digital Elevation Model (DEM)” to students, faculty, and government officials at the *Mullins Library GIS Day Open House*, Univ. of Arkansas, Fayetteville, AR (Nov 2006).
- Presented “High Throughput Computation (HTC) of Light Detection and Ranging (LIDAR) Derivatives” poster for the Governor’s reception in conjunction with a press conference on the *AREON high speed network initiative*, Univ. of Arkansas, Fayetteville, AR (Dec 2006).
- Discussed LIDAR-assisted forestry assessment related to the red oak borer with Jacqueline Froelich and Fred Stephen on *Ozarks at Large*, a weekly radio broadcast from 91.3 FM KUAF *National Public Radio* (program aired 23 Mar 2007 and 25 Mar 2007; a previous news release from Univ. of Arkansas *Daily Headlines* was posted on 14 Mar 2007; a short summary was also posted by *USA Today* on 15 Mar 2007).
- Presented “Scalable Remote Sensing-assisted Decision Support” with a focus on LIDAR in forestry and high throughput computing to the *Geosciences External Advisory Board*, Fayetteville, AR (May 2007).
- Forest LIDAR research was highlighted by Joe M. Smith of the *Society of American Foresters* in an article entitled “Researchers Use Spatial Technology to Gain Insights into Insect’s Role in Oak Decline” published in *The Forestry Source* (May 2007).
- Presented “The Fourth R: Remote Sensing” to Arkansas and Oklahoma high school students in the 8th-10th grade *Gifted and Talented Program*, Fayetteville, AR (Jul 2007).
- Presented “Buscando Referencias Cruzadas Entre Ecosistemas de América Latina” or “Search for Latin American Ecosystem Crosswalks” in Spanish to Central and South American scientists at a terrestrial ecosystem workshop sponsored by the *Inter-American Biodiversity Information Network (IABIN)*, Panama City, Panama (Dec 2007).
- Presented options on Central American land cover monitoring to Tom Wirth from *EPA Climate Change Division* and geoinformatics researchers at the *Centro de Estudios Ambientales*, Universidad del Valle de Guatemala, Guatemala City, Guatemala and at the *Centro Agronómico Tropical de Investigación y Enseñanza* or *CATIE*, Turrialba, Costa Rica (Apr 2008).
- Presented “Central American Carbon Analysis” and “Remote Measurement of Deciduous Forest Biomass in the Ozark Mountains” to Emil Peña, Executive Director of *Energy & Environmental Systems Institute* at *Rice Univ.*, Fayetteville, AR (Jun 2008).
- Forest monitoring research was highlighted by Barbara Shields of *Environmental Systems Research Institute (ESRI)* in an article entitled “Rx for Forest Health: Scientists Use GIS to Battle Red Oak Borer in Ozark Woodlands” published in *National Woodlands Magazine* 31(2):11-12 and available at <http://www.woodlandowners.org/> (Spring 2008).
- Presented “Integrated Spatial Decision Support for Red Oak Borer Hazard Response” including an interactive red oak borer hazard map and website (<http://asa.cast.uark.edu/hazmap/>) to *USDA Forest Service* officials at a *Columbia Regional Geospatial Service Center Workshop* and to forest entomologists from around the United States at the *East Texas Forest Entomology Seminar*, Nacogdoches, TX (9-10 Oct 2008).
- Presented, with Joshua S. Jones, Fred M. Stephen *et al.*, poster entitled “Satellite and LIDAR-derived GIS Inputs for Forest Inventory and Analysis in the Ozark Mountains” to students, faculty, and visiting public at the *GIS Day Open House*, Univ. of Arkansas, Fayetteville, AR (19 Nov 2008).

- Presented with Jeffrey R. Jones, Fabrice DeClerk, Tom Wirth, Zac Andereck, Kevin Wright, and Stephen Ogle “Central America Regional Approach to REDD [Reduced Emissions from Deforestation and Degredation] Monitoring” at a *REDD Capacity Development Workshop* on “Forest Area Change Assessment: the Experience of Existing Operational Systems”, *National Institute for Space Research (INPE)*, Sao Jose dos Campos, Brazil (5 Feb 2009).
- Presented “Observing Forests, Landscapes, and Beyond” as part of the *Arkansas Public Lectures in Space and Planetary Sciences*, Fayetteville, AR (19 Feb 2009).
- Participated with 40 scientists and engineers in a *National Science Foundation* workshop entitled “Bridging the Cyber, Physical and Social Worlds”; led discussion on “Geographic Information Scalability” and participated in developing workshop outcomes for “Design Science”, Kansas City, MO (27-28 May, 2009).
- Presented “RefCruz 2009: Terrestrial Ecosystem Classification Schema ‘Cross-walks’ for Latin America” to approximately 30 *Inter-American Biodiversity Information Network (IABIN)* experts, Panama City, Panama (5-7 Oct, 2009).
- Presented “Systematic Methods for Improving Landsat-derived Land Cover Data in Central America” at a *USAID / EPA Climate Change* workshop at the *Centro Agronómico Tropical de Investigación y Enseñanza* or *CATIE*, Turrialba, Costa Rica (8 Oct 2009).
- Presented “Software Tools for Geographic Information Systems” as part of the NSF-funded CI-TRAIN cyber-infrastructure workshop series, Univ. of Arkansas, Fayetteville, AR (9, 16 Feb 2010).
- Presented with Jackson D. Cothren, W. Fredrick Limp, Snow Winters, Malcolm Williamson, and Angie Payne “High Performance Computing, Visualization and Large Geospatial Data Sets” as part of *CyberInfrastructure Days* held in the Donald W. Reynolds Center for Enterprise Development, Univ. of Arkansas, Fayetteville, AR (17 May 2010).
- Presented “Planetary Remote Sensing” at a public workshop to celebrate the 10th anniversary of the *Arkansas Center for Space and Planetary Sciences*, Univ. of Arkansas, Fayetteville, AR (9 Dec 2010).
- Participated with William A. Schwab, Stephen K. Boss, Frank L. Farmer, Steve Stephenson, and Herbert Morales in a delegation to establish a multidisciplinary graduate student research exchange between *Univ. of Arkansas* and *Universidad Católica Santa María La Antigua*, Panama City, Santa María, Chitré, Pedasí, Las Minas, and Santiago, Republic of Panama (30 Mar-6 Apr 2011).
- Presented with Stephen K. Boss et al. a geoinformatics-assisted sustainable tourism development five-year research agenda for Central Panama to Etty Arjona, Quiel Dimas, and María Eugenia de Alemán from *Universidad Católica Santa María La Antigua*, Univ. of Arkansas, Fayetteville, AR (23 Jul 2011).
- Presented “Geoinformatics Horizons” at the *Space and Planetary Sciences Seminar*, Univ. of Arkansas, Fayetteville, AR (3 Oct 2011).
- Presented “Remote Sensing-assisted Spatial Decision Support System Provenance”, at a combined remote sensing seminar with Russ Congalton and Bruce Davis, *to honor the career of Dr. John R. Jensen*, Carolina Distinguished Professor, *Dept. of Geography*, Univ. of South Carolina, Columbia, SC (20 Apr 2012).
- Presented with Steven F. Sholes and Vincent F. Chevrier “Object-based Image Analysis for Remote Sensing of Planetary Surfaces” at a seminar for the 2012 NSF REU program at the *Arkansas Center for Space and Planetary Sciences* (25 Jul 2012).
- Presented “Applied Silvicultural Assessment (ASA) Hazard Map” at an *AmericaView* remote sensing webinar (8 Aug 2012).

- Presented “Python in a GIS Lab” to software developers and decision makers working with Python at *pyArkansas 2012*, Univ. of Central Arkansas, Conway, AR (27 Oct 2012).
- Presented “Visualization of Small-footprint LIDAR Using the LAS Dataset” to students, faculty, and government and private industry representatives at the *UA Student Chapter of the ASPRS Geospatial Information and Technology Showcase*, Univ. of Arkansas, Fayetteville, AR (24 Jan 2013).
- Presented with Xuan Shi and Jackson D. Cothren “Implications of Provenance-aware Remote Sensing Process” as a *Dept. of Geography* colloquium speaker, Texas A&M Univ., College Station, TX (22 Mar 2013).
- Presented with Bruce Gorham “Remote Sensing Workshops, Training, and Curriculum” to *USGS* representatives and members of the *AmericaView* consortium, Baltimore, MD (28 Mar 2013).
- Presented with Steven L. Stephenson a remote sensing perspective of “Ecology at Several Scales” to NSF program directors and a group of U.S. and Panamanian scientists at the *Panama-USA Dimensions of Biodiversity Workshop* sponsored by NSF, INDICASAT AIP, and SENACYT, Gamboa, Panama (9-10 Apr 2013).
- Presented “Novel OBIA Application Domain: High Temporal Resolution Imaging” to members of the eCognition software team in a *Trimble Navigation* webinar (6 Nov 2013).
- Presented “Geospatial Observation and Geo-cyberinfrastructure” to biologists at an *Emerging Frontiers in Tropical Science* workshop sponsored by *Organization for Tropical Studies*, La Selva Biological Station, Costa Rica (9-14 Nov 2013).
- Presented “Role of a Geospatial Provenance Store” at a *Dept. of Geography* seminar, Brigham Young Univ., Provo, UT (5 Dec 2013).
- Presented “Role of Provenance in Geo-cyberinfrastructure” to geotechnical area experts visiting from *ExxonMobil*, Univ. of Arkansas, Fayetteville, AR (16 Apr 2014).
- Presented with Bruce Gorham “ArkansasView: Online Remote Sensing Curriculum” to *USGS* representatives and members of the *AmericaView* consortium, Davis, CA (20 Oct 2014).
- Presented with Bruce Gorham “ArkansasView: Provenance Impact in Remote Sensing” to *USGS* representatives and members of the *AmericaView* consortium, Reston, VA (23 Feb 2015).
- Presented “ArkansasView Highlights 2015” to *USGS* representatives and members of the *AmericaView* consortium, Sioux Falls, SD (23 Oct 2015).
- Presented with Mohamed Aly “ArkansasView: Work Underway and Future Plans” to *USGS* representatives and members of the *AmericaView* consortium, Reston, VA (29 Feb-1 Mar 2016).
- Presented workshop on “Prospective and Retrospective Workflows in GIS” to students in *Landscape Ecology*, Univ. of Arkansas, Fayetteville, AR (7 Mar 2016).
- Interviewed by Joe Mostowy for *Hexagon Geospatial* (HxGN TV) on “Utilizing Emerging Geospatial Technologies in the Classroom” (see https://www.youtube.com/watch?v=yo_P8LNrTpA), Fort Worth, TX (14 Apr 2016).
- Discussed upcoming work with the Intergovernmental Panel on Climate Change (IPCC) in Minsk, Belarus to help refine international greenhouse gas guidelines with Chris Branam (see <http://news.uark.edu/articles/34970>; 8 Jul 2016) from Univ. of Arkansas and with Kyle Kellams on *Ozarks at Large*, 91.3 FM KUAF *National Public Radio* (see <http://kuaf.com/post/intergovernmental-panel-has-arkansas-flavor>, Fayetteville, AR (27 Jul 2016).