

JOHN A. HARRINGTON, JR.

Curriculum Vitae

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Personal Data

Date and Place of Birth: 4-5-50, Rochester, NY
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Research Interests

Synoptic Climatology	Precipitation Climatology	Applied Geography
Ecological Climatology	Climate Variability	Remote Sensing of Vegetation
Climate Classification	Biogeography	Water Quality Remote Sensing
Synoptic Meteorology	Geographic Education	Geographic Information Systems

Educational Data

B.S. (Geography) Michigan State University (1972)
M.A. (Geography) University of Minnesota (1974), Advisor: Dr. Richard Skaggs
Ph.D. (Geography) Michigan State University (1980), Advisor: Dr. Jay Harman

Membership in Professional Organizations

American Geographical Society	American Association for the Advancement of Science
Association of American Geographers	American Geophysical Union
National Council for Geographic Education	American Meteorological Society
National Geographic Society	American Society for Photogrammetry and Remote Sensing

Professional Experience

1999- Kansas State University: Department Head
1996- Kansas State University: Professor
1996 Kansas State University: Acting Department Head (Fall)
1994-1996 Kansas State University: Associate Professor
1993-1994 Indiana State University: Professor
1990-1993 Indiana State University: Associate Professor
1989-1990 Indiana State University: Visiting Associate Professor
1988-1994 USDA Agriculture Research Service: Remote Sensing Specialist
1986-1989 New Mexico State University: Associate Professor
1985-1986 University of Nebraska-Lincoln: Assistant Professor
1984 University of Nebraska-Lincoln: Visiting Asst. Professor (Fall)
1980-1985 University of Oklahoma: Assistant Professor
1978-1980 University of Oklahoma: Visiting Assistant Professor

Awards and Special Appointments

2003 Member, Natl. Res. Council Workshop Steering Committee
2002 Member, Assoc. of American Geographers Nominating Committee
2000-2003 Member, Assoc. of American Geographers Commission of College Geography
2000-2002 Climatology Editor, Physical Geography

1998-2001 Director, Natural Resources and Environmental Sciences Secondary Major, Kansas State
 1994-1995 Fellow, Institute for Social and Behavioral Research, Kansas State
 1992 Associate Director, Colorado Geographic Alliance Summer Institute
 1986-88 Director, Digital Mapping Laboratory, New Mexico State University
 1985 Remote Sensing Specialist, Conservation and Survey Division, University of Nebraska
 1982 Junior Faculty Summer Research Fellow, University of Oklahoma
 1981 Summer Research Scientist, Oklahoma Climatological Survey

Refereed Articles - Major Journals and Book Chapters

- 2004 “Geospatial Contributions to Watershed-Scale Surface Water Quality Modeling,” J.M.S. Hutchinson, J. Harrington, Jr., and L.J. Marzen in World Minds: Geographical Perspectives on 100 Problems, D.G. Janelle, *et al.* (eds.), p. 565-570.
- 2003 “An Integrated Approach for Water Quality Assessment of a Kansas Watershed” S.J. Bhuyan, J.K. Koelliker, L.J. Marzen, and J.A. Harrington, Jr., Journal of Environmental Modelling and Software Vol. 18(5), 473-484.
 “Southwest Kansas: Local Emissions and Non-Local Determinants” J. Harrington, Jr., D. Goodin, L. Harrington, D. Kromm, and S. White, pp. 57-78 in Global Change in Local Places: Estimating, Understanding, and Reducing Greenhouse Gases R. Abler ed., Cambridge University Press.
- 2002 “Land Cover Change and Associated Trends in Surface Reflectivity and Vegetation Index in Southwest Kansas: 1972-1992,” D.G. Goodin, J.A. Harrington, Jr., and B.C. Rundquist, Geocarto International Vol. 17(1), 43-50.
 “Assessment of runoff and sediment yield using remote sensing, GIS and AGNPS,” S.J. Bhuyan, L.J. Marzen, J.K. Koelliker, J.A. Harrington, Jr., and P.L. Barnes Journal of Soil and Water Conservation Vol. 57(6), 351-364.
- 2001 “Teaching Site-Specific Agriculture: Three Semesters’ Experience with a Multi-Disciplinary Approach,” J.P. Schmidt, M.D. Ransom, G.J. Kluitenberg, M.D. Schrock, J.A. Harrington, Jr., R.K. Taylor, and J.L. Havlin, Journal of Natural Resources and Life Sciences Education Vol. 30, 77-83.
 “Furnace Winds of the West,” N.J. Leathers and J. Harrington, Jr., Journal of the West Vol. 40 (3), 48-57.
- 2000 “A Climatology of Surface Cyclone Trajectory and Intensity for Heavy-Snow Events at Three Midwestern Stations,” G.D. Bierly and J.A. Harrington, Jr., Physical Geography Vol. 21, 522-537.
 “The Effects of Climatic Factors on Vegetation Dynamics of Tallgrass and Shortgrass Vegetation Cover,” B.C. Rundquist and J.A. Harrington, Jr., Geocarto International Vol. 15 (3), 31-36.
 “Mesoscale Satellite Bioclimatology,” B.C. Rundquist, J.A. Harrington, Jr., and D.G. Goodin, Professional Geographer Vol. 52, 331-344.
 “Understanding and Portraying the Global Circulation,” J.A. Harrington, Jr. and J.E. Oliver, Journal of Geography Vol. 99, 23-31.
- 1999 “Major Snowfalls in the Great Plains: Temporal Aspects and Relative Importance,” N.J. Leathers and J.A. Harrington, Jr., Physical Geography Vol. 20, 134-151.
- 1998 “Local Greenhouse Gas Emissions: A Case Study in Southwest Kansas,” D.G. Goodin, J.A. Harrington, Jr., G.I. Holden, Jr., and B.D. Witcher, Great Plains Research Vol. 8, 231-253.
 “Balancing Scientific and Ethical Values in Environmental Science,” J.R. Harman, J.A. Harrington, Jr., and R.S. Cerveney, Annals, AAG Vol. 88, 277-286.
 “Reply: Ethics, Values, and Geographic Research” J.R. Harman, J.A. Harrington, Jr., and R.S. Cerveney, Annals, AAG Vol. 88, 308-310.
 “Vegetation Change in the Mount St. Helens Blast Zone, 1979-1992,” L.M.B. Harrington, J.A. Harrington,

- Jr., and P.M. Frenzen, Geocarto International Vol. 13, 75-82.
- "Remote Sensing of Temporal and Spatial Variations in Pool Size, Suspended Sediment, Turbidity, and Secchi Depth in Tuttle Creek Reservoir, Kansas: 1993," M.D. Nellis, J.A. Harrington, Jr., and J. Wu, Geomorphology Vol. 21, 281-293.
- 1996 "Mapping Reservoir Turbidity Patterns Using SPOT-HRV Data," D.G. Goodin, J.A. Harrington, Jr., M.D. Nellis, and D.C. Rundquist, Geocarto International Vol. 11(4), 71-78.
- 1995 "Satellite-Based Herbaceous Biomass Estimates in the Pastoral Zone of Niger," B. Wylie, I. Denda, R. Pieper, J. Harrington, Jr., B. Reed, and M. Southward Journal of Range Management Vol. 48, 159-164.
- "A Climatology of Spring and Fall Colorado Cyclones: 1961-1990," G.D. Bierly, and John Harrington, Jr., Journal of Climate Vol. 8, 853-863.
- 1994 "Chlorophyll Measurements in the Presence of Suspended Sediment Using Broad Band Spectral Sensors Aboard Satellites" J. Ritchie, F. Schiebe, C. Cooper, and J. Harrington, Jr., Journal of Freshwater Ecology, Vol. 9, 197-206.
- 1992 "Remote Sensing of Suspended Sediments: The Lake Chicot, Arkansas Project, F.R. Schiebe, J.A. Harrington, Jr., and J.C. Ritchie International Journal of Remote Sensing, Vol. 13, 1487-1509.
- "Migration of the Southwest North American Monsoon: Impact of the Southern Oscillation," J.A. Harrington, Jr., R.S. Cerveny, and R.C. Balling, Jr., Physical Geography Vol. 13(4), 318-330.
- "A Satellite-based Range Assessment System for the Sahel of Africa," B. Wylie, J. Harrington, Jr., R. Pieper, and I. Denda Geocarto International, Vol. 7(1), 79-85.
- "Remote Sensing of Lake Chicot, Arkansas: Monitoring Suspended Sediments, Turbidity, and Secchi Depth," J.A. Harrington, Jr., F.R. Schiebe, and J.F. Nix Remote Sensing of Environment, Vol. 39, 15-27.
- 1991 "Satellite and Ground Based Pasture Assessment in Niger: 1986 - 1988," B.K. Wylie, J.A. Harrington, Jr., S.D. Prince, and I. Denda International Journal of Remote Sensing, Vol. 12, 1281-1300.
- "Satellite Mapping of Suspended Sediment and Its Application to Reservoir Assessment," J.R. Ross, F.R. Schiebe, J.A. Harrington, Jr., and H.J. Grimshaw Lake and Reservoir Management, Vol. 7, 89-95.
- "Contests as Learning Experiences: The Role of Weather Forecasting Contests in Geography Programs," J.A. Harrington, Jr., R.S. Cerveny, and J.S. Hobgood Journal of Geography, Vol. 90, 27-31.
- "Climate and Vegetation of the Mid-continent: Natural Patterns and Human Alterations," J.A. Harrington, Jr. and J.R. Harman Great Plains Quarterly, Vol 11, 103-112.
- 1990 "Rural Addressing and Computer Mapping in New Mexico," W.J. Gribb, R.J. Czerniak, and J.A. Harrington, Jr., Professional Geographer, Vol. 42(4), 471-480.
- "Multidate Image Analysis of Forest Degradation in Equatorial Africa," S.M. Berta, P.W. Mausel, J.A. Harrington, Jr., and R. Graham, Geocarto International, Vol. 4(4), 57-61.
- 1989 "Landsat MSS Images of the Clean-up of Lake Chicot," J.A. Harrington, Jr. and F.R. Schiebe, Geocarto International, Vol. 4, 59-62.
- 1988 "Temporal Statistics: An Application in Snowfall Climatology," J.A. Harrington, Jr. and R.S. Cerveny, Physical Geography, Vol. 9, 337-353.
- "A Climatology of Intra-monthly Temperature Variability in the Conterminous United States 1951-1980," B.R. Skeeter, K.F. Dewey, and J.A. Harrington, Jr., Physical Geography, Vol. 9, 99-119.
- "Student Development of Educational Software: Spin-offs from Classroom Use of DIAS," J.A. Harrington, Jr., T. Miller, R. Lougeay, and K.F. Cartin, Journal of Geography, Vol. 87, 169-173.
- "Integrated NDVI Images for Niger: 1986-1987," J.A. Harrington, Jr., B.K. Wylie, and C.J. Tucker, Geocarto International, Vol. 3, 37-40.

- 1987 "A Climatology of Mean Monthly Snowfall for the Conterminous United States: Temporal and Spatial Patterns," J.A. Harrington, Jr., R.S. Cerveny, and K.F. Dewey, Journal of Climate and Applied Meteorology, Vol. 26 (8), 897-912.
 "On Defining Remote Sensing, a Response," J. Fussell, D.C. Rundquist, and J.A. Harrington, Jr., Photogrammetric Engineering and Remote Sensing, Vol. 53 (8), 1096.
- 1986 "On Defining Remote Sensing," J. Fussell, D.C. Rundquist, and J.A. Harrington, Jr., Photogrammetric Engineering and Remote Sensing, Vol. 52 (9), 1507-1511.
 "The Digital Image Analysis System (DIAS): Microcomputer Software for Remote Sensing Education," J. Harrington, Jr., K. Cartin, and R. Lougeay, Photogrammetric Engineering & Remote Sensing, Vol. 52 (4), 545-550.
- 1985 "A Synoptic Climatology of Depressions in Warm Season Precipitation Profiles from the Upper Middle West," J.A. Harrington, Jr. and B.J. Brown, Physical Geography, Vol. 6 (2), 186-197.
 "A Synoptic Climatology of Moisture Stress Gradients in the Western Great Lakes Region," J.A. Harrington, Jr. and J.R. Harman, Physical Geography, Vol. 6 (1), 43-56.
 "Contribution of Satellite Remote Sensing to Analysis of Spatial Variability in Zooplankton Distributions," S.T. Threlkeld and J.A. Harrington, Jr., Hydrobiologia, Vol. 127, 3-8.
- 1978 "Contrasting Rainfall Patterns in the Upper Middle West," J.R. Harman and J.A. Harrington, Jr., Annals, Association of American Geographers, Vol. 68 (3), 402-413.

Other Refereed Articles

- 2003 "Applying the Hahn Heat Wave Model in Nebraska," E. Bowles and J. Harrington, Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 26, 313-318.
 "Classification of Natural Characteristics and Anthropogenic Stressors in Kansas Watersheds," T.L. Brown, J.M.S. Hutchinson, J. Harrington, Jr. and M. Lu, Papers and Proceedings of Applied Geography Conferences, Vol. 26, 416-423.
 "Detecting Confined Animal Feeding Operations (CAFO) Expansion in Southwest Kansas: A Landsat Thematic Mapper (TM) Approach," R.M. Kroemer, and J. Harrington, Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 26, 452-461.
 "Human Dimensions of Global Change Research in Southwestern Kansas," L.M.B. Harrington, J. Harrington, Jr, M. Lu, D.G. Goodin, D.E. Kromm, and S.E. White,
<http://sedac.ciesin.columbia.edu/openmeeting/docs/Harrington.pdf>
- 2002 "Geographic Applications in Non-point Pollution Assessment," J.M. Shawn Hutchinson and John Harrington Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 25, 18-26.
 "Impact of Global Warming on Ecosystems: A Case Study of Biomass at Konza Prairie Biological Station, Jincheng Gao and John Harrington, Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 25, 60-68.
 "Human Adaptability to Environmental Change: Development of an Assessment Protocol," Lisa M.B. Harrington, Max Lu, and John Harrington, Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 25, 269-275.
 "Assessing the Impact of Heat and Humidity on Livestock: Development of an Hourly THI Climatology," John Harrington, Jr. and Erik Bowles, Papers and Proceedings of Applied Geography Conferences, Vol. 25, 311-315.
- 2001 "KATS: A GIS-based Spatial Decision Support Tool for Water Resource Management in Kansas," Max Lu and J. Harrington, Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 24, 106-112.
 "Using AGNPS 98 and GIS to Model Sediment Yield from a Newly Constructed Golf Course," S.K. Starrett, Y. Su, L. Chen, and J. Harrington, in Urban Drainage Modeling Symposium 2001, R.W. Brashear and C. Maksimovic (eds.), American Society of Civil Engineers.
- 2000 "Water Quality Modeling in the Red Rock Creek Watershed, Kansas," L.J. Marzen, J. Harrington, Jr., S.J. Bhuyan, J.K. Koelliker, L.D. Frees, and C.G. Volkman, Papers and Proceedings of Applied

- Geography Conferences, Vol. 23, 175-182.
- "Assessing Climate Variability in Wisconsin," M.J. McHugh and J. Harrington, Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 23, 72-80.
- "GIS Development for the Colbert Hills Golf Course," J. Harrington, Jr. and N. Leathers, Papers and Proceedings of Applied Geography Conferences, Vol. 23, 183-189.
- 1997 "Global Change in Local Places: Satellite Reflectance Data for Southwest Kansas," J. Harrington, Jr., D. Goodin, and K. Hilbert, Papers and Proceedings of Applied Geography Conferences, Vol. 20, 43-47.
- "Estimating Changes in Greenhouse Gas Emissions for the Natural Gas Industry in Southwest Kansas," G.I. Holden, J. Harrington, Jr., D. Goodin, and S. De, Papers and Proceedings of Applied Geography Conferences, Vol. 20, 20-24.
- "Monitoring Conservation Reserves: A Geographic Approach," N. Leathers and J.A. Harrington, Jr. Papers and Proceedings of Applied Geography Conferences, Vol. 20, 25-34.
- "Analysis of the Relationship between NDVI and Rainfall in Subhumid Agricultural Areas and the Influence of Environmental Factors," Y. Tao, Z. Chi, J. Harrington, Jr., B. Rundquist, and M.D. Nellis, Papers and Proceedings of Applied Geography Conferences, Vol. 20, 310-318.
- "Analyzing Rangeland Grazing Intensity Using Landsat Imagery - A Case Study in the Southern District of Botswana," Z. Chi, C.E. Bussing, J. Harrington, Jr., D.G. Goodin, Y. Tao, and M.D. Nellis, Papers and Proceedings of Applied Geography Conferences, Vol. 20, 334-341.
- 1996 "Precipitation Seasonality in the Midwest: 1895-1989," K. Hilbert, J.A. Harrington, Jr., and J.E. Oliver Papers and Proceedings of Applied Geography Conferences, Vol. 19, 71-75.
- "The Reasons for the Seasons" J.A. Harrington, Jr., in the special issue: Weather and Climate of Nebraska, NEBRASKAland Magazine, Vol. 74, No. 1, 15-25.
- 1995 "Precipitation Vectors: Two Indexes of Precipitation Seasonality," J. Harrington, Jr. and J.E. Oliver, Papers and Proceedings of Applied Geography Conferences, Vol. 18, 103-106.
- "Hyperspectral and Video Remote Sensing of Oklahoma Lakes," J. Harrington, Jr. and R.L. Repic, Papers and Proceedings of Applied Geography Conferences, Vol. 18, 79-86.
- "Application of Satellite Data in the Interpretation of Intertidal Wetlands: Willapa Bay, Washington," C.J. Berlin and J.A. Harrington, Jr., Papers and Proceedings of Applied Geography Conferences, Vol. 18, 87-96.
- 1994 "Water Temperature, Air Temperature, and Atmospheric Circulation Relationships for Willapa Bay, Washington," J. Harrington, Jr., L.M.B. Harrington, and C.J. Berlin, Papers and Proceedings of Applied Geography Conferences, Vol. 17, 1-7.
- "Assessing Climatic Variations with Climatic Years," J.E. Oliver and J. Harrington, Jr. Papers and Proceedings of Applied Geography Conferences, Vol. 17, 42-49.
- "Relationships of Rio Grande Headwaters Precipitation and Discharge to the Southern Oscillation Index," R.E. Earl and J. Harrington, Jr. Papers and Proceedings of Applied Geography Conferences, Vol. 17, 16-24.
- 1993 "Modeling the Expansion of Spartina in the Palix Estuary," J. Harrington, Jr. and L.M.B. Harrington Papers and Proceedings of Applied Geography Conferences, Vol. 16, 50-56.
- 1992 "Spartina Invasion in the Palix Estuary," L.M.B. Harrington and J.A. Harrington, Jr. Papers and Proceedings of Applied Geography Conferences, Vol. 15, 57-60.
- "Investigation of Water Quality in Coal Mine Lake Environments of Southwestern Indiana," R. Repic, G.D. Bierly, and J.A. Harrington, Jr. Papers and Proceedings of Applied Geography Conferences, Vol. 15, 49-55.
- 1991 "Oklahoma Lake Assessment Using Multidate Landsat MSS Data," J. Harrington, Jr., F. Schiebe, J. Ross, F. Morrison, and W. Cauthron Papers and Proceedings of Applied Geography Conferences, Vol. 14, 175-182.
- "Using the Forest Service as an Information Source for Species Mapping," L. Harrington and J. Harrington, Jr. Papers and Proceedings of Applied Geography Conferences, Vol. 14, 183-188.
- 1989 "Assessing Annual Changes in the Sahelian Vegetation of Niger," J.A. Harrington, Jr., and B.K. Wylie, Papers and Proceedings of Applied Geography Conferences, Vol. 12, 107-115.
- 1987 "Microcomputer Based Rural Addressing in New Mexico," R.J. Czerniak, W.J. Gribb, and J.A. Harrington,

- Jr., Papers and Proceedings, 1987 Applied Geography Conference, Vol. 10, 69-75.
- 1985 "Forest Composition as Affected by Slope Orientation in Hardwood Forests of Northern Lower Michigan," J.A. Harrington, Jr. and M.E. Neithercut The East Lakes Geographer, Vol. 20, 13-18.
- "Bathymetric Changes in Overholser Reservoir," L.A. Stout, J.A. Harrington, Jr., H.J. Grimshaw, and G.L. Shapiro, Proceedings, Oklahoma Academy of Science, Vol. 65, 69-72.

Non-Refereed Proceedings Papers, Book Chapters, and Other Articles

- 2004 "A Climatology of Hourly THI Values for Livestock Producers," J. Harrington, Jr. And E. Bowles, Preprints, 14th Conference on Applied Climatology, American Meteorological Society (CD ROM)
- 2003 "Mount St. Helens Recovery Followed with GIS," L. Marzen, L.M.B. Harrington, and J. Harrington, Jr. contributing authors, Arc News, Vol. 25(1), 16-17.
- 2002 "Living with Climatic Variability and Potential Global Change: Climatological Analyses of Impacts on Livestock Performance," G.L Hahn, T.L. Mader, J. Harrington, J.A. Nienaber, and K.L. Frank, Preprints, 15th Conference on Biometeorology and Aerobiology, American Meteorological Society, p. 45-49.
- "Development of Hourly THI Climatology Products for Livestock Producers in the MINK Region," John Harrington, Jr. and Erik Bowles, Preprints, 15th Conference on Biometeorology and Aerobiology, American Meteorological Society, p. 158-161.
- "Climate Stability in the Great Plains," J.A. Harrington, Jr., and M. James Wood, Preprints, 13th Conference on Applied Climatology, American Meteorological Soc. p. 236-237.
- 2001 "Effect of Cell Size on AGNPS Predictions," S.J. Bhuyan, K.R. Mankin, J.K. Koelliker, L. Marzen, and J. Harrington, Jr., Paper No. 01-2002, ASAE International Meeting, Sacramento, CA.17 pages.
- "Potential Climate Change Effects on Warm-Season Production of Livestock in the United States," K.L. Frank, T.L. Mader, J.A. Harrington, Jr., G.L. Hahn, M.S. Davis, and J.A. Nienaber, Paper No. 01-3042, ASAE International Meeting, Sacramento, CA 28 pages.
- "Climate Change Effects on Livestock Production in the Great Plains," K.L. Frank, T.L. Mader, J.A. Harrington, Jr., G.L. Hahn, and M.S. Davis, in Livestock Environment VI, Proceedings of the Sixth International Symposium, Louisville, KY, p. 351-358 in ASAE Publication 701P0201.
- 2000 "Use of Satellite Imagery to Determine Land Cover Input Variables in an AGNPS Water Quality Model," L.J. Marzen, J.A. Harrington, Jr., S.J. Bhuyan, and J.K. Koelliker, Paper No. 002200, ASAE International Meeting, Milwaukee, WI. 7 pages.
- "Water Quality Assessment for Cheney Reservoir Watershed," S.J. Bhuyan, J.K. Koelliker, L.J. Marzen, and J.A. Harrington, Jr., Paper No. 002197 ASAE International Meeting, Milwaukee, WI. 18 pages.
- 1999 "Variations in Greenhouse Gas Emissions Across Western Kansas," J.A. Harrington, Jr., D. Goodin, and B. Witcher, Preprints, Tenth Global Change Symposium, American Meteorological Soc. p. 458-461. Also published as "Variations in Greenhouse Gas Emissions Across Western Kansas," J.A. Harrington, Jr., D. Goodin, and B. Witcher, Preprints, 11th Conference on Applied Climatology, American Meteorological Soc. p. 398-401.
- "Kite Aerial Photography for Forest Assessment at Fort Leavenworth," J.S. Aber, J. Harrington, and M.C. Nowak, Technical Papers, 1999 ASPRS Annual Meeting p. 484-490.
- "Global Change in Local Places," Lisa Harrington, Douglas Goodin, John Harrington, Jr., David Kromm, Stephen White, 1998-99 Annual Report of the Great Plains Regional Center-NIGEC. GPRC 99-01, University of Nebraska-Lincoln, Inst. of Agriculture and Natural Resources p. 95-101.
- 1998 "A Climatology of Changing Spring Dew Point Temperatures: Dodge City, Kansas," J.A. Harrington, Jr., Preprints, Ninth Global Change Symposium, American Meteorological Soc. p. 114-116.
- "Regional and Local Variation in NDVI Response to Climatic Variables in Kansas," B.C. Rundquist and J.A. Harrington, Jr., Technical Papers, 1998 ASPRS Annual Meeting p. 579-591.
- 1997 "Modeling Spartina in Willapa Bay," J.A. Harrington, Jr., L.M.B. Harrington, and C.J. Berlin, Proceedings, Second International Spartina Conference, 1997, 23-26.
- 1996 "Hyperspectral Remote Sensing of Water Quality," J.A. Harrington, Jr. and R.L. Repic, pages XXII-1 to XXII-6 in Hydrology Data Report WASHITA '94, P. Starks and K. Humes (eds.), NAWQL 96-1,

USDA Agricultural Research Service, Durant, OK.

- "Climate and Vegetation in Central North America: Natural Patterns and Human Alterations" J.A. Harrington, Jr. and J.R. Harman, p. 135-148 in Conservation of Great Plains Ecosystems: Current Science, Future Options, S.R. Johnson and A. Bouzaher, eds., Kluwer Academic Publishers, Dordrecht, The Netherlands.
- 1995 "Integrating Airborne Videography and Close Range Remote Sensing for Surface Water Quality Investigation," R.L. Repic, J.A. Harrington, Jr., F.R. Schiebe, J.H. Everitt, D.E. Escobar, and M.R. Davis, Proceedings 15th Biennial Workshop on Color Aerial Photography and Videography in the Resource Assessment, 172-181
- "Satellite-Based Mapping of the Intertidal Zone: Willapa Bay, Washington," J.A. Harrington, Jr. and C.J. Berlin, Proceedings, Third Thematic Conference on Remote Sensing for Marine and Coastal Environments Vol. I, 677-686.
- 1993 "Willapa Bay, Washington: Environmental Concerns and Natural Resources Management," L.M.B. Harrington and J. Harrington, Jr. In: Geographic Perspectives on the Social and Economic Restructuring of Rural Area; Proceedings of the IGC Commission on Changing Rural Systems p. 162-169.
- "Grassland Resource Management in Niger," J. Harrington, Jr., and B. Wylie, Monitor, Vol. 5 (2), 2, 10.
- "Lake Chicot: A Clean Bill of Health," Landsat Data Users Notes, Vol. 8 (1), 6.
- 1992 "Landsat MSS Studies of Chlorophyll in Sediment Dominated Lakes," J.C. Ritchie, F.R. Schiebe, C.M. Cooper, and J.A. Harrington, Jr. International Geoscience and Remote Sensing Symposium, Vol. II, 1514-1517.
- 1991 "A Method for Mapping the Spatial Distribution of Suspended Sediments within Lakes or Reservoirs using Landsat Multispectral Scanner Data," J. Harrington, Jr., F. Schiebe, and J. Ross Proceedings, Remote Sensing and GIS Applications to Nonpoint Source Planning, 103-111.
- 1990 "Famine," J.A. Harrington, Jr., The World Book Encyclopedia, Vol. 7:27-29.
- "Deforestation in Equatorial Africa: An Assessment Based on Analysis of Multidate Landsat MSS Data," S.M. Berta, P.W. Mausel, J.A. Harrington, Jr., and R. Graham, Proceedings, ISPRS Mid-Term Symposium: Global and Environmental Monitoring, 247-253.
- "Rural Addressing and Geographic Information Systems," J.A. Harrington, Jr., Proceedings, Indiana GIS Conference, 126-131.
- 1989 "Monitoring Lake Recovery Using the Landsat MSS," J.A. Harrington, Jr., F.R. Schiebe, and F.E. Morrison, in: Regional Characterization of Water Quality, S. Ragone (ed.), International Assoc. Hydrologic Sciences, Pub. No. 182, 143-150.
- "AVHRR Assessment of Pastoral Biomass in the Sahel of Niger," J.A. Harrington, Jr. and B.K. Wylie, Technical Papers, 1989 ASPRS-ACSM Annual Meeting, Vol. 3 (Remote Sensing), 258-265.
- "Remote Sensing Training for International Students," J.A. Harrington, Jr. in Current Trends in Remote Sensing Education, M.D. Nellis, et al., eds., 175-177.
- 1988 "Weather and Climate Effects on the Normalized Difference Vegetation Index," J.A. Harrington, Jr., and D.H. Greigor, Jr., ASPRS Technical Papers, 1988 ASPRS-ACSM Fall Convention, 207-213.
- "Climate," J.A. Harrington, Jr., World Book Encyclopedia, Vol. 4, 676-680.
- "Drought," J.A. Harrington, Jr., World Book Encyclopedia, Vol. 5, 352.
- 1987 "Remote Sensing of Suspended Sediments of Lake Chicot, Arkansas," F.R. Schiebe, J.A. Harrington, Jr., and J.C. Ritchie, Proceedings of the Sixth Corps of Engineers Remote Sensing Symposium, 9 pp.
- "Integration of Aerial Photographic Interpretation and a Microcomputer Based GIS: The Dona Ana County, New Mexico, Land Use Project," W.J. Gribb, R.J. Czerniak, and J.A. Harrington, Jr., Proceedings of the Conference on Spatial Data Systems for Management, November 5-6, 1987, Tucson, AZ, 52-58.
- 1986 "A Microcomputer-Based GIS for Rural Addressing," J.A. Harrington, Jr., W.J. Gribb, and R.J. Czerniak, Proceedings, Conference on Remote Sensing and Geographic Information Systems in Management, Remote Sensing Center, Tucson, AZ, 26-29.
- 1984 "Microcomputer-Based Digital Image Processing: A Tutorial Package for Exploration Geologists," J.A. Harrington, Jr. and K.F. Cartin, in Proceedings, Third Thematic Conference, Remote Sensing in Exploration Geology ERIM, Ann Arbor, MI, 939-947.

- "Summary of Remote Sensing Studies on Lake Chicot," J.C. Ritchie, F.R. Schiebe, and J.A. Harrington, Jr., in Limnological Studies of Lake Chicot, Arkansas J.F. Nix and F.R. Schiebe, eds., Ouachita Baptist Univ., Arkadelphia, AR, pp 62-71.
- "Techniques for Digital Enhancement of Landsat MSS Data Using an Apple II+ Microcomputer," J.A. Harrington, Jr. and K.F. Cartin, in Extraction of Information from Remotely Sensed Images P.F. Hopkins, ed., Am. Soc. of Photogrammetry, Falls Church, VA, 20-27.
- 1982 "The Effects of Seasonal Differences in Climatic Conditions on Landsat Spectral Signatures and Associated Land Cover Classification," in Remote Sensing: An Input to Geographic Information Systems in the 1980's, Pecora VII Symposium, 262-267.
- 1981 "Low-cost Digital Image Processing at the University of Oklahoma," CORSE-81, The 1981 Conference on Remote Sensing Education, NASA Conference Publication 2197, 108-112.
- 1980 "Low Cost Satellite Digital Image Analysis of Surface Waters," C. Barb, Jr., and J.A. Harrington, Jr., Proceedings, Symposium on Surface-Water Impoundments, 677-685.
- "Mapping Vegetation Association Boundaries with Landsat MSS Data: An Oklahoma Example," J.A. Harrington, Jr., and C.W. Dunn, Jr., Technical Papers, 46th Annual American Society of Photogrammetry Convention, 270-281.
- 1977 "In Support of Synoptic Climatology," J.R. Harman and J.A. Harrington, Jr., in Applications of Geographic Research, H. A. Winters and M. K. Winter, eds., 97-111.

Reviews/Commentaries

- 1996 "Atlas of Oklahoma Climate" a book review by J.A. Harrington, Jr. Great Plains Research, Vol. 6, No. 1, 118-119.
- 1993 "Overkill, Overkill" J.E. Oliver and J.A. Harrington World Climate Review Vol. 2(1), 3.
- 1993 Environmental Impact Statement (State of Washington) on Noxious Emergent Plant Management -- a 2 page assessment by John Harrington, Jr. and Lisa M.B. Harrington (with a relevant manuscript appended).

Monographs

- 1994 FUNDAMENTALS OF GIS: BASIC PRINCIPLES AND EXAMPLE APPLICATIONS, John A. Harrington, Jr., Prepared for the Fourth Indiana GIS Conference, Indianapolis, IN, 38 pp.
- 1993 FUNDAMENTALS OF GIS: BASIC PRINCIPLES AND EXAMPLE APPLICATIONS, John A. Harrington, Jr., and Patrick J. Bresnahan, Prepared for the Third Indiana GIS Conference, Indianapolis, IN, 31 pp.
- 1982 Drought Patterns in Oklahoma and the Great Plains, Operational Weather Modification, Vol. 8, Oklahoma Climate Survey, Norman, OK, 58 pp.

Reports

- 2000 Evaluation of AGNPS Modeling in Cheney Lake NPS Management, J.K. Koelliker, S.J. Bhuyan, J.A. Harrington, Jr., and L.J. Marzen, Kansas Water Office, Contract No. 00-117, 104 pages.
- 1989 Evaluation de la Production Fourragere, Campagne 1989, M. Bagoudou, I. Denda, F. Sanoussi, B.K. Wylie, and J.A. Harrington, Jr., Niamey, Republic of Niger, Minisetere de l'Agriculture et de l'Elevage, 33 pages.
- 1988 La Production de Biomasse dans la Zone Pastorale du Niger: Systeme D'Alerte Precoce, Rapport 1988, A. Nababa, B. Maidaji, D. Issa, B.K. Wylie, and J.A. Harrington, Jr.; Ministry of Animal and Water Resources, Government of Niger, 18 pp.
- 1987 Pasture Assessment Early Warning System: Research on Satellite-Based Pasture Assessment Implementation Techniques, B.K. Wylie, J.A. Harrington, Jr., R. Pieper, A. Maman, and D. Issa; Niger Integrated Livestock Project, Government of Niger/Tufts University/USAID, 32 pp.
- 1987 Early Warning System Preliminary Report: Pasture Production in the Central and Eastern Pastoral Zones of Niger, B.K. Wylie, J.A. Harrington, Jr., B. Maidaji, and D. Issa; Integrated Livestock Production Project, Government of Niger/Tufts University/USAID, 29 pp.
- 1984 "Quartermaster Creek Watershed Land Cover Types: An Analysis of Current Conditions and Recent Change," S.M. Berta and J.A. Harrington, Jr., in Archaeology of the Mixed Grass Prairie, Phase I:

- Quartermaster Creek, T.G. Baugh ed., Oklahoma Archaeological Survey, Archaeological Resources Survey Report No. 20, Norman, OK, 33-49.
- 1983 A Low-Cost Landsat Digital Technology Training Package, U.S. Department of Interior, Bureau of Mines, Report No. OSM MRI-80-OK-02, 49 pp.
- 1981 A Survey of Prehistoric and Historic Sites in the Honey Springs Area, McIntosh and Muskogee Counties, Oklahoma, C. Yates, D. Wyckoff, T.G. Baugh, and J.A. Harrington, Jr.; Oklahoma Archaeological Survey, Archaeological Resource Survey Report No. 11; 170 pp.
- 1980 "Low Cost Satellite Digital Image Analysis of Surface Waters," C. Barb, Jr., and J.A. Harrington, Jr.: Section V of EPA Final Report for Grant No. S-006181-01-0, Classification of Oklahoma Reservoirs Using Landsat Multispectral Scanner Data, H.J. Grimshaw, PI.
- 1975 Wildlife Habitat Change and Seasonal Cultivation, D.A. Brown, J.A. Harrington, Jr., T. Isley, D. Soehren, J.M. Smiley, and E. Stern; Minnesota Lands Management Info. System, Pub. No. 5012; 20 pp.

Lab Manuals

- 2003 Environmental Geography I Lab Manual, J. Harrington, Jr., D. Goodin, L. Harrington, and C. Martin, Kansas State University, July, 2003
Environmental Geography II Lab Manual, J. Harrington, Jr., L. Harrington, C. Martin, L. Marzen, N. Leathers, and A. Smith, Kansas State University, July, 2003
- 2002 Environmental Geography I Lab Manual, J. Harrington, Jr., D. Goodin, L. Harrington, and C. Martin, Kansas State University, July, 2002
Environmental Geography II Lab Manual, J. Harrington, Jr., L. Harrington, C. Martin, L. Marzen, N. Leathers, and A. Smith, Kansas State University, July, 2002
- 2001 Environmental Geography I Lab Manual, J. Harrington, Jr., D. Goodin, L. Harrington, and C. Martin, Kansas State University, December, 2001
Environmental Geography II Lab Manual, J. Harrington, Jr. L. Harrington, N. Leathers, C. Martin, L. Marzen, and A. Smith, Kansas State University, December, 2001
- 2000 Environmental Geography I Lab Manual, J. Harrington, Jr., D. Goodin, L. Harrington, and C. Martin, Kansas State University, July, 2000
Environmental Geography II Lab Manual, J. Harrington, Jr. L. Harrington, N. Leathers, C. Martin, L. Marzen, and A. Smith, Kansas State University, August, 2000
Remote Sensing of the Environment, Laboratory Manual (8th Edition), D.C. Rundquist, J.A. Harrington, Jr., and A.J. Smith, Kansas State University, January, 2000
- 1999 Remote Sensing of the Environment, Laboratory Manual (7th Edition), D.C. Rundquist, and J.A. Harrington, Jr., Kansas State University, January, 1999
Environmental Geography I Lab Manual, J. Harrington, Jr., D. Goodin, L. Harrington, and C. Martin, Department of Geography, Kansas State University, August, 1999
- 1996 Remote Sensing of the Environment, Laboratory Manual (6th Edition), J.A. Harrington, Jr., M.D. Nellis, and B.C. Rundquist, Kansas State University, December, 1996
- 1995 Remote Sensing of the Environment, Laboratory Manual (5th Edition), J.A. Harrington, Jr. and M.D. Nellis, Kansas State University, December, 1995
Remote Sensing of the Environment, Laboratory Manual (4th Edition), J.A. Harrington, Jr. and M.D. Nellis, Kansas State University, January, 1995

Published Abstracts - Detailed listing available upon request

Graduate Advisees - Ph.D.

- 2001 Leathers, Nancy J., Ph.D. Dissertation: "A Furnace Wind Climatology for the Central United States."
 Marzen, Luke J., Ph.D. Dissertation; "An Analysis of Vegetation Change and Rehabilitation Approaches after the 1980 Eruption of Mount St. Helens " (L.M.B. Harrington, Co-advisor)
- 2000 Hutchinson, J.M. Shawn, Ph.D. Dissertation: "Estimating Tallgrass Prairie Soil Moisture Using Active Satellite Microwave Imagery and Optical Sensor Inputs."
- 1994 Yan, Yuk. Y., Ph.D. Dissertation: "Spatial and Temporal Analyses of Weather Stress Indices of Indiana."

(J.E. Oliver, Co-advisor)

- 1993 Repic, Randall L., Ph.D. Dissertation: "An Assessment of Spectral Response Curves for Coal Strip Mine Lakes in Southwestern Indiana."

Graduate Advisees - M.A.

- 2004 Bowles, Erik H., "An Applied Climatology of Heat Stress Events in the Central United States: A Spatial and Temporal Assessment Using the Temperature-Humidity Index."
- 2003 Zimney, Michael S., "Hierarchical Diffusion of Geographic Information Systems in Kansas"
- 2002 Kroemer, Ryan M., "Assessing Aquifer Vulnerability in Phelps County, Nebraska and Finney County, Kansas Using DRASTIC and LPI Indices"
- Wood, M. James, "Spatial and Statistical Analysis of Palmer's Climatic Instability Index"
- 2001 Frank, Katrina L., "Potential Effects of Warm Season Climate Change on Livestock Production in the United States "
- 1999 Guinotte, John, "A Model for Predicting Coral Reef Habitats in the Tropical Western Atlantic and Eastern Pacific"
- Blocker, James, "An Examination of Remotely Sensed Derived Vegetation Indexes and Maneuver Damage at Fort Riley, Kansas"
- 1998 Holden, Gerold, I., Jr., "Impact of Increased Atmospheric CO₂ on the Greening of the Sand-Sage Prairie, Finney County Kansas"
- 1997 Hutchinson, J.M. Shawn "RADAR Backscatter - Soil Moisture Relationships over Tall Grass Prairie"
- 1996 Wardlow, Brian D., M.A. Thesis: "Temporal Monitoring of Suspended Sediment Patterns Using Landsat Thematic Mapper Imagery - A Study of Tuttle Creek Reservoir, Kansas"
- 1994 Doering, David. E., M.A. Thesis: "Geographic Perspectives of Sand Dune Stability at the Indiana Dunes National Lakeshore"
- Peters, W. Ted, M.A. Thesis: "An Evaluation of Special Transforms for Improving the Vegetation Classification for the Gap Analysis Project in Indiana."
- Foster, Scott P., M.A. Thesis: "The Utilization of Two Raingauge Networks for Modeling Flooding Along the Little Washita River, October 17-21, 1983."
- 1992 Bierly, Gregory D., M.A. Thesis: "A Climatology of Transition Season Colorado Cyclones: 1961-1990."
- 1991 Johnson (DeSmidt), Amy M., M.A. Thesis: "Principal Component Analysis of Landsat TM Data for Water Quality Assessment."
- 1984 Walsh, Michael F., M.A. Thesis: "Spatial and Temporal Transfer of Classification Algorithms Developed for Landsat MSS Digital Data."
- Cartin, Kevin F., M.A. Thesis: "The Digital Image Analysis System: Microcomputer Software For Digital Processing of Landsat Data."
- Brown, Brock J., M.A. Thesis: "A Synoptic Climatology of Bimodality in Warm Season Precipitation Profiles From Central North America."
- 1981 Barrios, Eduardo A., M.A. Thesis: "A Multivariate Statistical Taxonomy of the Climate of Venezuela."
- Cantwell, Hal D., M.A. Thesis: "The Changing Phytosociology of the Oak-Hickory Forest of the Ozark Mountains of Oklahoma."
- 1980 Dunn, Charles W., Jr., M.A. Thesis: "Identifying the Prairie-Forest Transition Using Remote Sensing: A Comparative Analysis."

Courses Taught - Undergraduate Level

Survey of Geography (New Mexico State)

Physical Geography (Oklahoma, Nebraska, Indiana State)

Environmental Geography (Kansas State)

World Regional Geography (New Mexico State)

Meteorology/Weather and Climate (Oklahoma, New Mexico State, Indiana State)

Climatology (Kansas State)

Earth From Space: Remote Sensing (Indiana State)

Courses Taught - Advanced Undergraduate/Graduate Level

Capstone Class (Kansas State - Natural Resource & Environmental Science Secondary Major)
Synoptic Meteorology (Nebraska, New Mexico State)
Dynamic and Synoptic Climatology (Oklahoma, Indiana State)
Physical Climatology, Regional Climatology (Nebraska)
Field Techniques, Regional Field Study (Oklahoma, New Mexico State, Indiana State)
Geography of Canada (Michigan State)
Remote Sensing (Oklahoma, New Mexico State, Indiana State, Kansas State)
Remote Sensing: Computer Techniques (Indiana State)
Computer Cartography (New Mexico State)
Plant Geography (Oklahoma)
Human Impacts on Physical Environments (Oklahoma, Indiana State)

Graduate Seminars Offered

History and Philosophy, Advanced Remote Sensing, Human Impact on the Environment, Advanced Spatial Analysis,
Climate of the Great Plains, Advanced Environmental Geography, Graduate Colloquium II (Kansas State)
Applied Climatology, Remote Sensing of the Atmosphere and Hydrosphere, Remote Sensing - Advanced
Techniques, Climatic Change, GIS, Natural Resource Applications of GIS (Indiana State)
Research Design (New Mexico State)
Statistical Climatology, Climatic Geomorphology, Computer Graphics (Oklahoma)

Research Grants

OCT 2001 - SEP 2002	USDA NRCS	
	SSURGO Certification of Soil Surveys	\$25,000
	Objective: produce certified 1:24,000 digital soil surveys	
	Co-Principal Investigator: Shawn Hutchinson	
SEP 2001 - JUN 2004	National Institute for Global Environmental Change	
	Evaluating Models Predicting Livestock Output Due to Climate Change	\$180,000
	Objective: evaluate the quality of models that relate livestock production to climate	
	Principal Investigator: Terry Mader (Univ. of Nebraska)	
MAY 2001 - JUL 2001	Kansas Dept. of Health and Environment (EPA flowdown)	
	KATS 14 Statistical Review	\$7,447
	Objective: statistical assessment of variables in the KATS system	
	Principal Investigator: Max Lu	
DEC 2001 - NOV 2004	NASA EPSCoR	
	HYSPIRE: Hyper-Resolution Remote Sensing of Kansas Rural Environments	\$716,100
	Objective: examination of hyper-spectral and hyper-spatial imagery for Kansas	
	Principal Investigator: Doug Goodin	
AUG 2000 - JUL 2005	NSF	
	Infrastructure to Develop Human-Environment Regional Observatories	\$290,000
	Objective: to examine local vulnerability of land use/cover to climate change	
	Principal Investigator: Steve White	
APR 2000 - DEC 2002	Kansas Water Office	
	Smoky Hill River Water Quality Improvement Program	\$96,597
	Principal Investigator: Kyle Mankin (Bio. and Agr. Engineering)	
	My tasks involve using remote sensing to assess land cover variations.	

JUN 2000	Kansas Dept. of Health and Environment (EPA flowdown) Kansas Action Targeting System 14 Regression Analysis Training Objective: statistical assessment of variables in the KATS system Principal Investigator: Max Lu	\$8,365
JUL 1999 - JUN 2000	National Institute for Global Environmental Change Projected Global Change Effects on Livestock Performance Objective: examine impacts of global change scenarios on livestock production Principal Investigator: Terry Mader (Univ. of Nebraska)	\$12,000
NOV 1998 - JUN 2000	Colbert Hills Environmental Research Team GIS Development for Colbert Hills Golf Course Area	\$6,000
AUG 1998 - JUN 2000	Kansas Water Office Evaluation of AGNPS Modeling in Cheney Lake NPS Management Objective: use remote sensing, GIS, and watershed modeling to assess BMPs in Cheney Lake area. Principal Investigator: Prasanta Kalita (Year 1), Jim Koelliker (Year 2) - both in Bio. and Agr. Engineering. My tasks involve using remote sensing to assess land cover variations.	\$60,012
JAN 1997 - DEC 2002	NASA EPSCoR Spatial and Spectral Scale Dimensions for Modeling Rural Resource Systems: Projections for Global Change Principal Investigator: M. Duane Nellis (initially); J.A. Harrington, Jr. (Years 2 and 3), D. Goodin (Years 4 and 5)	\$725,611
JUL 1996 - JUN 1999	National Institute for Global Environmental Change Global Change in Local Places Objective: assess the local contribution to global change. Principal Investigator: Steve White (initially); J. Harrington, Jr. (Year 2); L. Harrington (Year 3)	\$118,000
JAN 1996 - DEC 1998	NASA (through the AAG) Global Change in Local Places Objective: assess the local contribution (trace gases, land cover change) to global change from both natural and social science perspectives. Principal Investigator (K-State): Steve White (initially); J. Harrington, Jr. (Years 2 and 3)	\$165,000
MAR 1996 - DEC 1996	Association of American Geographers (Anne White Fund) Evaluation of Vegetation Change in the Vicinity of Mount St. Helens Objective: award supports field work by a researcher and spouse Principal Investigator: Lisa MB Harrington	\$ 1,000
NOV 1995 - JUN 1996	Kansas State University, Office of Research and Sponsored Programs Assessing Vegetation Change at Mount St. Helens Objective: examine a 15 year history of Landsat MSS data for areas impacted by the eruption Principal Investigator: Lisa MB Harrington; my tasks include digital data analysis and GIS analysis	\$ 1,600
JUL 1995 - JUN 1996	Kansas State University, Office of Research and Sponsored Programs Landsat Satellite Assessment of Water Quality: Temporal and Spatial Variations in Tuttle Creek Reservoir Objective: to examine a 10 year history of Landsat TM data for the reservoir Co-investigators: Drs. Douglas G. Goodin and M. Duane Nellis	\$ 1,600

JUN 1993 - AUG 1993	Indiana State University Research Committee Assessment of Regional and Temporal Climatic Variability Using the 'Climatic Year' Concept" Objective: to test the feasibility of using Russell's 'Climate Year' in evaluation of climate variability. Co-investigator: Dr. John Oliver	\$ 3,000
MAY 1992 - DEC 1992	Space Remote Sensing Center/ITD, Stennis Space Center, MS The Use of Computer Analyzed Multitemporal SPOT Data of Delaware County, IN for Implementation into the Wetlands Rectification and Sampling Project Objective: Assess wetlands and forested wetlands using multirate SPOT data. Principal Investigator: Paul W. Mausel; my task was selection of digital image analysis methods.	\$ 8,000
MAY 1989 - DEC 1991	The Government of Niger Integrated Livestock Production II Objective: Continued educational and technical support for the satellite-based pasture assessment within the Ministry of Animal Resources. Co-investigators: R. Pieper and B. Wylie, NMSU Animal and Range Science	\$ 447,344
OCT 1988 - NOV 1988	The Government of Niger 1988 Niger Pasture Production Preliminary Report Objective: Analysis of NOAA satellite data for pasture biomass production estimates in Niger. Co-investigators: R. Pieper and B. Wylie, NMSU Animal and Range Science	\$ 27,297
MAY 1988 - FEB 1990	Western Regional Climate Center Climate Validation Project Objective: Analysis and correction of errors in coop observer temperature data record. Co-investigator: R.A. Earl, NMSU Earth Sciences	\$ 9,200
JUL 1987 - DEC 1988	USAID (Tufts University and New Mexico State University) Niger Integrated Livestock Production Project Objective (remote sensing): development of a satellite-based method for monitoring space and time variations in Niger pasture conditions. Principal Investigator: R. Pieper, NMSU Animal and Range Science; my responsibilities included remote sensing data analysis, hardware and software selection, and technical training.	\$ 451,081
DEC 1987 - NOV 1988	Dona Ana County, New Mexico Dona Ana County, New Mexico, Aerial Photography Project Objective: Contract aerial photography of the county with annotation of major reference points. Co-Investigator: W.J. Gribb, NMSU Earth Sciences	\$ 60,000
AUG 1987 - SEP 1987	US Forest Service - Gila National Forest Road Inventory for US Forest Service Objective: Provide NM State Plane coordinates for several roads. Co-Investigator: W.J. Gribb, NMSU Earth Sciences	\$ 200
JUL 1987 - AUG 1987	US Bureau of Land Management Data Base Creation for BLM Objective: Provide State Plane coordinates for roads, pipelines, and railroads in Chaves Co., NM. Co-Investigator: W.J. Gribb, NMSU Earth Sciences	\$ 700
MAY 1987 - DEC 1987	Sandoval County, NM A Computer-Based Mapping and Rural Addressing System for Sandoval County, New Mexico	\$ 14,908

Objective: Rural addressing and mapping system for Sandoval Co., NM
Co-Investigator: W.J. Gribb, NMSU Earth Sciences

JAN 1987 - FEB 1988	Dona Ana County, New Mexico Land Use and Digital Mapping of Dona Ana County, New Mexico with Special Emphasis on the Rio Grande Valley	\$ 55,108
	Objective: Computer-based land use mapping based on interpretation of JUL 1986 aerial photos. Co-Investigators: W.J. Gribb and R.J. Czerniak, NMSU Earth Sciences	
OCT 1986 - SEP 1987	College of Arts & Sciences, New Mexico State University Satellite Remote Sensing of Water Quality Changes, Lake Chicot, Arkansas	\$ 4,000
	Objective: A study of ten years of coincident water quality and Landsat MSS data for Lake Chicot, Arkansas.	
OCT 1986 - SEP 1988	National Aeronautics and Space Administration Retrospective Studies of the Use of Landsat and AVHRR Data in Hydrologic Models for Land-Atmosphere Analysis	\$ 226,120
	Objective: Techniques for transforming satellite data for the SWRRB hydrologic model. Principal Investigator: C. Duchon, O.U. Meteorology.	
SEP 1986 - DEC 1986	National Park Service National Park Service - ANTIETAM: Themes	\$ 2,478
	Objective: Computer-based thematic data file development for Antietam Battlefield. Co-Investigator: W.J. Gribb, NMSU Earth Sciences	
JUN 1982 - AUG 1982	Junior Faculty Summer Research Fellowship, Univ. of Oklahoma Assessment of Temporal Variability in Climatic Classification	\$ 3,500
	Objective: To examine the relative importance in climatic classification of year-to-year fluctuations in weather conditions.	
OCT 1981 - SEP 1983	Oklahoma State Historical Society Quartermaster Creek Cultural Resource Inventory	\$ 9,891
	Objective: Evaluation of the multiple cultural resources in the Quartermaster Creek Watershed. Principal Investigator: D. Wyckoff, Oklahoma Archaeological Survey; my responsibilities were to make historical land cover maps through the use of remote sensing.	
OCT 1980 - DEC 1981	USDA, Southern Plains Watershed and Water Quality Lab Landsat Data Analysis of Lake Chicot, Arkansas	\$ 5,063
	Objective: Extraction and analysis of Landsat MSS data for evaluation of water quality of Lake Chicot, Arkansas.	
FEB 1980 - JAN 1981	Oklahoma State Historical Society Honey Springs Cultural Resource Inventory	\$ 18,857
	Objective: Inventory and evaluation of cultural resources for resource development. Principal Investigator: D. Wyckoff, Oklahoma Archaeological Survey; my responsibilities included making a land use map and summarizing the effects of land use change on cultural resources.	
AUG 1979 - SEP 1980	E.P.A., Oklahoma Water Resources Board Clear Lake Project	\$ 10,991
	Objective: Landsat-based trophic status classification of Oklahoma's major lakes.	

Teaching Oriented or Other Grants and Contracts

MAY 2002 - APR 2006	NSF The HERO REU Site Objective: provides funding to support a research experience for three undergraduate students Principal Investigator: Brent Yarnal (Penn State)	\$66,864
AUG 2000 - JUL 2001	NSF REU Supplement: Infrastructure to Develop Human-Environment Regional Observatories Objective: provides funding to support a research experience for an undergraduate student	\$5,665
SEP 1997 - AUG 2000	NASA Graduate Student Fellowship Estimating Soil Moisture Over Tall Grass Prairie Using ERS-2 SAR NASA Fellowship for J.M. Shawn Hutchinson	\$66,000
AUG 1996 - JUL 1999	USDA Cooperative State Research, Education, and Extension Service Geographic Information Systems in Agricultural Science Education Principal Investigator: John Havlin (replaced by Mickey Ransom and Mark Schrock): I contributed lectures on agricultural applications of remote sensing and GIS.	\$ 68,000
JAN 1993 - JUN 1995	NSF Science Education In-Service Program in Physical Geography: Introductory, Advanced and Outreach Models Objective: to teach physical geography (weather and climate, environmental remote sensing, and natural hazards) to Indiana high school teachers. Principal Investigator: William Dando; my responsibility was to prepare and deliver the environmental remote sensing institute.	\$ 302,000
NOV 1991	USDA Agricultural Research Service Training Workshop in Remote Sensing and Raster GIS Objective: A four-day workshop on use of ERDAS software for watershed management issues.	\$ 1,800
APR 1990	GeoGraphix, Denver, CO GeoGraphix Exploration System Objective: The GeoGraphix Exploration System, a GIS and database management system for geologic exploration, was donated for my research and teaching.	\$ 18,000
JUL 1987 - AUG 1987	Development Associates, Inc. International Workshop on Remote Sensing Objective: Geographic technique training for Mexican government officials. Co-Investigators: W.J. Gribb and R.J. Czerniak, NMSU Earth Sciences	\$ 6,000
APR 1985	Research Council, University of Nebraska-Lincoln Faculty Travel Grants Objective: Travel funding - 1986 AAG and 1986 SWARM, AAAS Meetings	\$ 700
SEP 1984	Research Council, University of Nebraska-Lincoln Faculty Travel Grant Objective: Funding for 1984 NCGE Meetings in Toronto, Canada	\$ 416
SEP 1984	Research Council, University of Nebraska-Lincoln Visiting Research Scholar Objective: Funding for the visit of Dr. Jay R. Harman	\$ 590

JAN 1983	Research Council, University of Oklahoma Upgrading Computer-based Remote Sensing Capabilities at the University of Oklahoma Objective: Funding for purchase of Landsat Thematic Mapper Data	\$ 250
OCT 1982 - APR 1984	Oklahoma Humanities Committee, NEH An Interpretive Exhibition of the Cultural Landscapes of the Oklahoma Panhandle Objective: prepare a touring exhibit on "No Man's Land" (the Oklahoma Panhandle) Principal Investigator: A.H. Smith, Landscape Architecture; my interpretations stressed physical environments and remote sensing.	\$ 45,349
OCT 1980 - MAY 1981	Faculty Research Grants, University of Oklahoma Microcomputer Cartographic Applications in Synoptic Climatology Objective: Acquisition of microcomputer cartography software.	\$ 600
JUL 1980 - JUN 1981	N.A.S.A., Earth Resources Laboratory, N.S.T.L. Landsat Workshop Program Objective: Seminars and a workshop providing state and local government officials with an understanding of remote sensing techniques.	\$ 12,000
OCT 1979 - DEC 1980	U.S.D.I.-O.S.M., Mining and Mineral Resource Research Institute A Low-Cost Digital Landsat Technology Training Package Objective: Development of microcomputer-based Landsat digital image processing tutorial emphasizing geologic applications.	\$ 23,670
JUN 1979 - MAY 1980	N.A.S.A., Earth Resources Laboratory, N.S.T.L. Landsat Workshop Program Objective: Programs to encourage the teaching of Landsat technology applications and to promote Landsat research efforts.	\$ 15,000

Invited Presentations

2003	Southern Plains Regional Integrated Science Assessment (RISA) Workshop, Dallas, TX
2002	University of Delaware, Newark, DE (Geography Department)
2001	University of Kansas, Lawrence, KS (Geography Department) 32 nd Annual South Dakota Geography Conference, Brookings, SD
1998	Emporia State University, Emporia, KS (Earth Science Department)
1997	Water and the Future of Kansas, Manhattan, KS Second International Spartina Conference, Olympia, WA
1995	Arizona State University, Tempe, AZ (Geography Department)
1994	Kansas State University, Manhattan, KS (Geography Department) Indiana University, Bloomington, IN (African Studies)
1993	Conservation of Great Plains Ecosystems, Kansas City, MO
1992	Eastern Illinois University (Geology-Geography Department) Beltsville Symposium XVII, Beltsville, MD North American Lakes Management Soc. (OK Chapter), Tulsa, OK
1991	Purdue University (Laboratory for Remote Sensing)
1990	ICRISAT, Niamey, Niger Central Michigan University (Earth Day speaker - 2 presentations) Michigan State University (Geography Department) University of Illinois (Geography Department)
1989	ASP&RS Central New York Chapter, Geneseo, NY SUNY at Geneseo (Geography Department) International Range Management and Forage Production, Las Cruces, NM

- El Paso/Las Cruces AMS Chapter, White Sands Missile Range, NM
 Kansas State University (Geography Department)
- 1988 University of Nebraska-Lincoln (Conservation and Survey Division)
 USDA Agricultural Research Service, Durant, OK
 Oklahoma State University (Environmental Studies)
- 1987 University of Nebraska-Lincoln (Geography Department)
 NOAA, NESDIS, Columbia, MO
 Agrhymet, Niamey, Niger
 Western Washington University (Geography Department)
 Remote Sensing and Geographic Information Systems, Austin, TX
 Southwest Texas State University (Geography Department)
 El Paso/Las Cruces Chapter of the AMS, Las Cruces, NM
- 1986 New Mexico State (Biology Department)
 New Mexico State (Earth Science Department)
- 1985 Western Michigan University (Geography Department)
 Central Michigan University (Geography Department)
 University of Arkansas (Geography Department)
 University of Nebraska (Botany Department)
- 1984 University of Alabama (Geography Department)
- 1983 Oklahoma State University (Geography Department)
 Southwest Missouri State University (Geography Department)
 University of Oklahoma (School of Meteorology)
 San Diego State University (Department of Geography)
- 1982 Eighth North American Prairie Conference, Kalamazoo, MI
 University of Oklahoma (Oklahoma Climatological Survey)
 Oklahoma Biological Station, Kingston, OK
 ASLA (Oklahoma Chapter), Oklahoma City, OK
- 1981 Southwest Texas State University (Geography Department)
 University of Oklahoma (Botany Department)
- 1980 University of Minnesota (Geography Department)
- 1979 OKC Geological Society, Oklahoma City, OK
 APA (Oklahoma Chapter), Oklahoma City, OK
- 1977 Symposium on Applications of Geographic Research, East Lansing, MI

124 Other Professional Paper or Poster Presentations

Professional Service

- 2003 Member, National Academy of Science Workshop Steering Committee
- 2002-03 Chair, Great Plains/Rocky Mountain Division of the AAG
- 2002 Member, AAG Nominating Committee
- 2002 External Reviewer, Univ. of Colorado-Denver
- 2001-02 Climatology Editor for Physical Geography
- 2001-02 Vice-Chair, Great Plains/Rocky Mountain Division of the AAG
- 2000-03 Member, AAG Commission on College Geography II
- 1997-00 Editorial Advisor for Great Plains Research
- 1995-97 Director, Climate Specialty Group, AAG
- 1991-96 Student Awards Committee, Remote Sensing Specialty Group, AAG (Chair 93-96)
- 1992-96 Member, Remote Sensing Committee, Society for Range Management
- 1994-97 Board of Directors, Applied Geography Conferences
- 1987-95 Honors Committee, Climate Specialty Group, AAG (Chair 87-93)
- 1992-94 Member, University GIS Alliance (Indiana)
- 1992-94 NCGE Geography in Science Education Task Force

1984-90 NCGE Remote Sensing Committee
1988-89 Co-Chair, Local Arrangements Committee, 1989 AAAS SWARM Meeting
1987-89 Chair, Vice-Chair, Geology and Geography Section - SWARM Div., AAAS
1985-86 Abstract Reviewer - ESA Annual Meeting
1982-85 Chair, Vice-Chair, Geography Section - Oklahoma Academy of Science
1981-82 Program Committee - 1982 AAG Meetings

Proposal Reviewer - National Institute for Global Environmental Change (2), Oklahoma NASA
EPSCoR, Kansas NASA EPSCoR, NSF Geography and Regional Science (7), EPA, State of Montana, NSF
Science Education

Article Reviewer - Physical Geography (13), Geocarto International (11), Remote Sensing Reviews (3), Papers and
Proceedings of Applied Geography Conferences (53), Journal of Geography (4), Annals of the AAG,
Southwestern Naturalist, Great Plains Research (2), Meteorological Applications (2), Water Resources
Bulletin, International Journal of Remote Sensing (3), Photogrammetric Engineering and Remote Sensing (6),
The Professional Geographer (5), AAG Resource Papers, Bioscience, Proceedings, Oklahoma Academy of
Science, 1997 CLAG Yearbook, Climatic Research (2), Social Science Quarterly

Manuscript Reviewer - National Research Council, Kansas Geological Survey

Book Reviews: "Global Environment" Guilford Publications, Inc.,

"Global Environmental Change: An Atmospheric Perspective" John Wiley & Sons,

"Weather as Science" McGraw-Hill,

"Physical Geography: The Science of the Global Environment" John Wiley & Sons,

"Spatial Analysis in Biogeography and Ecology" Kluwer Academic Publishers.

Local Arrangements Coordinator, 2003 Great Plains - Rocky Mountains AAG Meeting, Manhattan, KS

Field Trip Co-leader, 2003 Great Plains - Rocky Mountains AAG Meeting, Manhattan, KS

Local Arrangements Committee Chair, 1996 Applied Geography Conference, Kansas City, MO

Co-Guest Editor, Volume 11, No. 3 of Geocarto International

Session Organizer: Applied Geography Conference (14), AAG Annual Meeting (3), NCGE Annual
Meeting, AAAS SWARM Annual Meeting, PE&RS Annual Meeting (3)

Session Chair: Applied Geography Conference (6), AAG Annual Meeting (7), IV International Congress of
Ecology, IAHS Third Scientific Assembly, SSSA Annual Meeting, NCGE Annual Meeting, Oklahoma
Academy of Science (2); AAG Southwest Regional Meeting, AAAS SWARM Annual Meeting, AAG Great
Plains/Rocky Mountains Regional Meeting, Kansas Academy of Science, PE&RS Annual Meeting (3)

University Service

2001-2002 Chair, Political Science Head Search Committee
2000-2001 Member, Search Committee for Social Science Methods Faculty in Elementary Education
2000- Recycling Committee
1996-2003 Governing Board, Natural Resources and Environmental Sciences: Secondary Major, Kansas State
1994 International Studies Secondary Major Review Committee, Kansas State
1993-1994 Environmental Safety Committee, Indiana State
1993-1994 Graduate Council, Indiana State
1993-1994 Graduate Student Appeals Committee, Indiana State
1993-1994 Director, Indiana State University Remote Sensing Lab
1991-1994 Natural Lands Committee, Indiana State
1990-1994 Co-Director, Indiana State University Climate Laboratory
1986-1989 Graduate Advisor, Masters of Applied Geography Program, New Mexico State
1986-1988 Director, Digital Mapping Laboratory, New Mexico State
1984-1985 Committee on Faculty Compensation, Oklahoma
1983-1984 Faculty Senate, Oklahoma
1982-1985 College of Geosciences Computer Committee, Oklahoma
1982-1984 Academic Misconduct Board, College of Geosciences, Oklahoma
1979-1985 Director, Landsat Technology Program, Oklahoma

