Anthony J. Vega, Ph.D.

Department of Biology and Geoscience Clarion University of Pennsylvania Clarion, PA 16214-1232 (814) 393-2023 avega@clarion.edu

EMPLOYMENT HISTORY

Professor, Chair, Clarion University of Pennsylvania, Department of Biology and Geoscience, Clarion, PA 16214-1232, August 2014 to present.

Duties: Department chair (May 2017 to present), teaching duties same as below.

Professor, *Chair*, Clarion University of Pennsylvania, Department of Anthropology, Geography and Earth Science, Clarion, PA 16214-1232, August 2003 to present.

Duties: Teach Basic Earth Science, Meteorology, Climatology, Oceanography, and Natural Disasters (online and face-to-face), department chair (May 2007 to May 2014), Summer chair (2001 to 2014), mentor faculty relative to online courses, teach online faculty course on online teaching (for Extended Studies), conduct atmospheric research.

Associate Professor, Clarion University of Pennsylvania, Department of Anthropology, Geography and Earth Science, Clarion, PA 16214-1232, August 1999-2003.

Assistant Professor, Clarion University of Pennsylvania, Department of Anthropology, Geography and Earth Science, Clarion, PA 16214-1232, August 1994-1999.

Graduate Assistant, Louisiana State University, Department of Geography and Anthropology, Louisiana Office of State Climatology, Southern Regional Climate Center, Baton Rouge, LA 70803, August 1991 to August 1994.

Duties: Instructor for Physical Geography: The Atmosphere, design, aid and assist various synoptic climatology research projects in conjunction with the LOSC and SRCC.

Adjunct Instructor, University of New Orleans, Department of Geography, Lakefront, New Orleans, LA 70148, Summer Semester 1991, and Fall Semester 1992.

Duties: Teach World Regional Geography - The Developed World.

Instructor, Southeastern Louisiana University, Department of Sociology, Social Work and Criminal Justice, Hammond, LA 70401, Spring Semester 1991.

Duties: Teach Physical Geography, The Geography of Anglo-America, and Advanced World Regional Geography I.

Graduate Assistant, Mississippi State University, Department of Geoscience, Broadcast Meteorology Program, Climatology Laboratory, Mississippi State, MS 39762, January 1989 – December 1990.

Duties: Teach Introduction to World Geography, Physical Geography, Severe Weather Laboratory, Physical Geography Laboratory, and Geology Laboratory, aid and assist in atmospheric science research.

EDUCATION

DOCTOR OF PHILOSOPHY - Physical Geography (Climatology; minor in Oceanography and Coastal Studies) Louisiana State University, Baton Rouge, LA 70803, August 1994, GPA 3.98 (4.0 scale) **MASTER OF SCIENCE** - Geoscience (Meteorology/Climatology), Mississippi State University, Mississippi State, MS 39762, December 1990, GPA 4.0 (4.0 scale)

BACHELOR OF ARTS - Geography, University of New Orleans, New Orleans, LA 70112, December 1987, GPA 3.33 (4.0 scale)

CERTIFICATE OF BROADCAST METEOROLOGY, Mississippi State University, Mississippi State, MS 39762, August 1990

SPECIALIZED COURSE WORK/TEACHING INTERESTS

Meteorology Natural Hazards Statistical Climatology Climatology Physical Geography/ES Operational Meteorology Weather Forecasting Hydroclimatology Coastal Meteorology Remote Sensing Applied Climatology Statistics Cartography Advanced Cartography Climate Var. and Change Severe Weather **Multivariate Statistics** Radar and Satellite Met. **Environmental Geology** Air-Sea Interactions **Experimental Statistics** Oceanography El Nino/Southern Oscillation Synoptic Climatology

PROFESSIONAL ASSOCIATIONS

Association of American Geographers - Climate Specialty Group - Member

American Meteorological Society - Member

National Weather Association - Member

Pennsylvania Geographical Society - Member

PERSONAL AWARDS/ACCOMPLISHMENTS

2019 Excellence in Teaching award - National Society of Leadership and Success - Clarion University

Earth and Atmosphere Science Expert for The Science and Entertainment Exchange

Subject Matter Expert/Consultant (Geoscience/Atmospheric Science) – Southern New Hampshire University

Who's Who Among America's Teachers

Who's Who in America

Phi Kappa Phi – National Love of Learning Selection Committee, Clarion Chapter Vice President and Scholarship Director 2018-present; Public Relations Director 2015-18

1998 - 2005 - AAG CSG Honors Director

1999 - Outstanding Paper Award, Bellwether Publishers (Physical Geography), 2000

1997 American Men and Women of Science - Distinguished Scientist

NASA JOVE Coordinator - Clarion University

AAG - Climate Specialty Group Board of Directors, Elected - Young Scholar Director

Pennsylvania Geographical Society, Elected - Outreach to Students Committee Chair

1986-1987 National Dean's List - University of New Orleans

Sigma Gamma Epsilon - Earth Science Honor Society

2002 Steel City Classic Bodybuilding Master's Champion, earned North American Bodybuilding Federation Pro Card

1991 - Junior Mr. Louisiana

1992 - Mr. Louisiana

1995 - Brown Belt, Okinawan Seito Ryu Karate - Rated #7 - Pennsylvania Karate Assoc.

1996 – Black Belt (Shodan), Okinawan Seito Ryu Karate, Rated #5 – PKA

1999 - Produced and Recorded The Difference, solo guitar CD

2001 - Produced and Recorded Honeycomb of Madness, CD with By The Way

2005 - Produced and Recorded Out of Nowhere, CD with By The Way

2011 - Produced and Recorded Medicine Garden, CD with Metafor

2012 - Produced and Recorded, The Uncertainty, solo guitar CD

INTERESTS

Martial Arts Weightlifting Guitar/Bass Racquetball Reading Competitive Shooting

DISSERTATION

The Influence of Regional-Scale Circulation on Precipitation Variability in the Southern United States. A dissertation submitted to the Faculty of Louisiana State University, Department of Geography and Anthropology, 300 pp, copyright 1994.

THESIS

Synoptic Conditions Influencing Hurricane Paths in the North Atlantic Basin, 1960 - 1989. A thesis submitted to the Faculty of Mississippi State University, Department of Geology and Geography, 218 pp, copyright 1990.

PUBLISHED BOOKS/BOOK CHAPTERS/TECHNICAL MONOGRAPHS

Vega, A.J., R.V. Rohli and E. Wright, 2019. Changes in Growing Season in the Northeastern United States, *Physical Geography*, in press.

Vento, F.J., A.J. Vega and H. Rollins, 2018. Genetic Stratigraphy: Late Pleistocene through the Holocene Paleoclimates and Paleo-environments of Pennsylvania, in *The Archaeology of Native Americans in Pennsylvania*, Ed. K.W. Carr, University of Pennsylvania Press, in press.

Vega, A.J. and R.V. Rohli, 2018. Chapter 20. Energy Production and Consumption and Sustainable Development, in *Capacity Building for Sustainable Development*, V.U. James, Editor, CABI International Development, Wallingford, UK, pp 241-253. ISBN 978-1-78064-616-9.

Vega, A.J. and R.V. Rohli, 2018. Chapter 23. Climate Change and Ozone Depletion: Building Capacity for Reduction of Impact on Climate, in *Capacity Building for Sustainable Development*, V.U. James, Editor, CABI International Development, Wallingford, UK, pp 273-284. ISBN 978-1-78064-616-9.

Hemmings, C.A., J.M. Adovasio, F.J. Vento and A.J. Vega, 2018. Current Investigations Suggest Pleistocene Human Occupation, in *Early Human Life on the Southeastern Coastal Plain*, Ed. A. Goodyear and C. Moore, University Press of Florida, Gainesville, FL, pp 66-89. ISBN 978-1-68340-034-9.

Rohli, R.V. and A.J. Vega, 2018, Climatology, 4th ed., Jones and Bartlett Press, Inc., Boston, MA, 418 pp. ISBN: 978-1-284-11998-5

Vega, A.J., 2018. Student Quiz Bank for Climatology, 4th ed., Jones and Bartlett Press, Inc., Boston, MA.

Vega, A.J. 2018. Instructor *PowerPoint* Lectures for *Climatology, 4th ed.*, Jones and Bartlett Press, Inc., Boston, MA.

Vega, A.J., 2016. Review of "Inventing Atmospheric Science Bjerknes, Rossby, Wexler, and the Foundations of Modern Meteorology by James Rodger Fleming, Cambridge, MA, MIT Press, *The AAG Review of Books*, 4:3:153-155.

Vega, A.J., C.H. Sui, and K.M. Lau, 2015: Northern hemisphere flow anomalies and U.S. temperature and precipitation variability. In Rohli, R.V. and T.A. Joyner (eds.), *Selected Readings in Applied Climatology*, Cambridge Scholars Publishing, Ltd., Newcastle-upon-Tyne, UK, pp. 46–53, 978–1–4438–7562–2, 361 pp.

Rohli, R.V. and A.J. Vega, 2013, Climatology, 3rd, Jones and Bartlett Press, Inc., Boston, MA, ISBN-978-1-284-03230-7.

Vega, A.J., R.V. Rohli and J.M. Grymes, 2011, *Louisiana Weather and Climate*, e-Book and print book, *Jones and Bartlett Pres*, ISBN-10 0763791628, ISBN-13-978-0763791629.

Rohli, R.V. and A.J. Vega, 2011, Climatology, 2ed, Jones and Bartlett Press, Jones and Bartlett Press, Inc. ISBN-13:978-0-7637-9101-8.

Rich, F.J., A.J. Vega, and F.J. Vento, 2011. Evolution of Late Pleistocene-Holocene Climates and Environments of St. Catherines Island and the Georgia Bight, in *Geoarchaeology of St. Catherines Island (Georgia)*, Bishop, G.A., H.B. Rollins and D.H. Thomas, Editors, *Anthropological Papers of the American Museum of Natural History*, No. 94-2011-AMNH, pp 67-78.

Vega, A.J., 2009, *Understanding Weather and Climate PowerPoint Lectures*, to accompany *Understanding Weather and Climate*, Edward Aguado and James E. Burt, 5th Ed., Prentice Hall, Upper Saddle River, NJ.

Vega, A.J., 2009, Ocean-Atmospheric Interactions, in Encyclopedia of Climate and Weather, 2nd Ed., Oxford University Press, ISBN: 978-0-19-531385-7.

Rohli, R.V. and A.J. Vega, 2008, Climatology, Jones and Bartlett Press, Inc. ISBN-13:978-0-7637-3828-0.

Vega, A.J., 2006, *Understanding Weather and Climate PowerPoint Lectures*, to accompany *Understanding Weather and Climate*, Edward Aguado and James E. Burt, 4th Ed., Prentice Hall, Upper Saddle River, NJ, ISBN: 0-13-101584-2.

Vega, A.J., 2003, *Instructor's Resource Manual*, 4th Ed, to accompany *Understanding Weather and Climate*, Edward Aguado and James E. Burt, Prentice Hall, Upper Saddle River, NJ, ISBN: 0-13-101584-2.

Vega, A.J., 2003, *Understanding Weather and Climate PowerPoint Lectures*, to accompany *Understanding Weather and Climate*, Edward Aguado and James E. Burt, 3rd Ed., Prentice Hall, Upper Saddle River, NJ, ISBN: 0-13-101584-2.

Vega, A.J., 2002, *Test Item File* for *Earth Systems Science: Understanding Environmental Systems*, Ed Spencer, McGraw-Hill (electronic, e-book, available only to instructors using textbook, 151 pp).

Vega, A.J., 2002, *Student Quiz File* for *Earth Systems Science: Understanding Environmental Systems*, Ed Spencer, McGraw-Hill (electronic, e-book, available only to textbook users, 79 pp).

Vega, A.J. 2002, Sir Charles Lyle (1797-1875), in *Industrialization and Imperialism*, 1800-1914, J.A. Bell, Greenwood Publishing Group, ISBN: 0-313-31451-9.

Vega, A.J. 2002, Alexander von Humboldt (1769-1859), in *Industrialization and Imperialism*, 1800-1914, J.A. Bell, Greenwood Publishing Group, ISBN: 0-313-31451-9.

Vega, A.J., 2000. *Instructor's Resource Manual, 2nd Ed*, to accompany *Understanding Weather and Climate*, Edward Aguado and James E. Burt, Prentice Hall, Upper Saddle River, NJ, 130 pp., ISBN: 0-13-027680-4

Vega, A.J., 2000. Climatology of North America, Vol. 2: North America and Caribbean Region, Part I: Physical Geography, *Encyclopedia of World Geography*, Salem Press, Inc., Pasadena, CA. pgs 393-400.

Vega, A.J., 2000. Climatology of Europe, Vol. 5: Europe, Part I: Physical Geography, *Encyclopedia of World Geography*, Salem Press, Inc., Pasadena, CA., pgs 1269-1274.

Vega, A.J., 1999. *Instructor's Resource Manual*, to accompany *Understanding Weather and Climate*, Edward Aguado and James E. Burt, Prentice Hall, Upper Saddle River, NJ, 105 pp. ISBN: 0-13-236662-2

Vega, A.J., K. D. Robbins and J. M. Grymes III, 1994. Frost / Freeze Analysis in the Southern Climate Region, Southern Regional Climate Center, Technical Monograph No.1, July 93 pp.

PUBLICATIONS (Refereed Journals)

Vega, A.J., R.V. Rohli, and E. Wright, Changes in Growing Season in the Northeastern United States, *Physical Geography*, in review.

Vega, A.J., S.A. Ates and R.V. Rohli, 2018. Atmospheric Circulation Variability and the Quality of Portuguese Wine, *Climate Research*, 75:117-130. DOI: 10.3354/cr01513.

Hemmings, C.A, J.M. Adovasio, A.E. Marjenin, F.J. Vento and A.J. Vega. 2014. The Old Vero Man Site (8IR009): Current Investigations Suggest Pleistocene Human Occupation. Symposium "Early Human Life on the Southeastern Coastal Plain", 71st Annual Southeastern Archaeological Conference, Greenville, SC.

Vento, F.J., H.B. Rollins, A. Vega, J.M. Adovasio, P. Stahlman, D.B. Madsen, and J.S. Illingworth, 2008. Development of a Late Pleistocene-Holocene Genetic Stratigraphic Framework for the Mid-Atlantic Region: Implications in Archaeology, *Society for American Archaeology Printed Papers*, 73rd Annual Meeting, Vancouver, B.C.

Rohli, R.V., M. Russo, and A.J. Vega, 2004. Tropospheric Ozone in Louisiana and Synoptic Circulation", Journal of Applied Meteorology, 43, 1428-1451.

Vega, A.J. and C.J. Matyas, 2004, "North Atlantic Tropical Cyclone Intensities and Macro-Scale Temperature Variations", The Pennsylvania Geographer, Spring/Summer, 42:1:142-178.

Vega, A.J. and L. Nicholson, 2002. "Climatic Contributions to Porcupine Caribou Migration Variations, The Pennsylvania Geographer, XL:1:103-126.

Rohli, R.V., A.J. Vega, M.R. Binkley, S.D. Britton, H.E. Heckman, J.M. Jenkins, D.E. Morida, Y. Ono and D.E. Sheeler, 2001. "Synoptic Circulation and Stream Discharge in the Great Lakes Basin", Applied Geography, 21, 369-385.

Vega, A.J., 1999, "The Impact (?) of El Nino on Pennsylvania Precipitation", The Pennsylvania Geographer, XXXVII:2:125-140.

Vega, A.J., R.V. Rohli and C.-H. Sui, 1999. "Climate Contributions to Chesapeake Bay Salinity Fluxes During Southern Oscillation Extremes", Physical Geography, 20:6:458-480.

Rohli, R.V., A.J. Vega, M.R. Binkley, S.D. Britton, H.E. Heckman, J.M. Jenkins, D.E. Morida, and Y. Ono, 1999. "An Automated Classification of Surface and 700 hPa Atmospheric Circulation Patterns for the Great Lakes Basin and Eastern North America", 25(1): 45-60, Journal of Great Lakes Research.

Vega, A.J., 1999. "El Niño: Predicting Unpredictable Weather", Scholars, Journal of the State System of Higher Education, Commonwealth of Pennsylvania, 7:2:12-17.

Vega, A.J., C.H. Sui and K.M. Lau, 1998. "Interannual and Interdecadal Variations of the Regionalized Surface Climate of the United States and Relationships to Generalized Flow Parameters", Physical Geography, 19:4:271-291.

Rohli, R.V., M.R. Binkley, S.D. Britton, H.E. Heckman, J.M. Jenkins, D.E. Morida, Y. Ono and A.J. Vega, 1998. "700 HPA Synoptic Circulation and Stream Discharge in the Great Lakes Basin", Proceedings of the Applied Geography Conferences, Association of American Geographers, 21:354-362.

Matyas, C.J. and A.J. Vega, 1998. "The Effects of Northeastern United States Climate Variations on Salinity Changes in Chesapeake Bay", Proceedings of the 12th National Conference on Undergraduate Research, V:1756-1760.

Holquist, M.E. and A.J. Vega, 1998. "North Atlantic Tropical Cyclone Variations During Cold and Warm Northern Hemisphere Years and Future Tropical Cyclone Frequency Implications", Proceedings of the 12th National Conference on Undergraduate Research, V:1761-1765.

Vega, A.J., 1998. "Generalized Western North Atlantic Circulation and Southern United States Precipitation Variability", Journal of the Mississippi Academy of Sciences, 43:4:174-187.

Vega, A.J., R.V. Rohli and K.G. Henderson, 1998. "Gulf of Mexico Mid-Troposphere Response to El Nino and La Nina Forcing", Climate Research, 10:115-125.

Vega, A.J., C.H. Sui and K.M. Lau, 1997. "Northern Hemisphere Flow Anomalies and US Temperature and Precipitation Variability", Papers and Proceedings of the 20th Annual Applied Geography Conference, 20:204-209.

Fiscus, D.M. and A.J. Vega, 1997. "The Derivation of United States Temperature and Precipitation Regions", Proceedings of the 11th National Conference on Undergraduate Research, V:1881-1884.

McCracken, D.M. and A.J. Vega, 1997. "Atmospheric Teleconnections and United States Regional Climates", Proceedings of the 11th National Conference on Undergraduate Research, V:1862-1865.

Vega, A.J. and K.G. Henderson, 1996. "On the Use of Eigenvector Techniques in Climatological Analysis", The Pennsylvania Geographer, XXXIV:1:50-73.

Henderson, K.G. and A.J. Vega, 1996. "Regional Precipitation Variability in the Southern United States", Physical Geography, Association of American Geographers, 17:2:93-112.

Vega, A.J., R.V. Rohli, and K.G. Henderson, 1995. "Comparison of Monthly and Intramonthly Indices for the Pacific-North American Teleconnection Pattern", Journal of Climate, 8:8:2097-2103.

Vega, A.J., 1995. "A Climatological Analysis of Tropical Cyclone Frequency and Intensity in the North Atlantic Basin, 1930-89", The Pennsylvania Geographer, XXXIII:1:44-70.

Vega, A.J. and M.S. Binkley, 1994. "Origins of Tropical Cyclones Striking the U.S. Mainland, 1960 - 1989", National Weather Digest, National Weather Association, 19:1:14-26.

Vega, A.J. and M.S. Binkley, 1993. "Tropical Cyclone Landfall in the United States, 1960 - 1989", Climate Research, 3:3:221-232.

Vega, A.J. and M.S. Binkley, 1991. "Temporal Variation of Tropical Cyclones in the North Atlantic Basin", GeoJournal, 23:4:311-322.

Vega, A.J. and M.S. Binkley, 1990. "The Greatest Storm on Earth: Hurricane Hugo", The Compass (Earth Science Journal of Sigma Gamma Epsilon), 67:4:293-303.

NON-REFEREED and MISCELLANEOUS PUBLICATIONS

Vega, A.J., 2019, "Good grief – Why is it so darned cold today?", The Clarion News, Jan 31.

Vega, A.J., 2013, "Paleoclimatic Reconstruction of the Northeastern United States", geology report with F.J. Vento.

Vega, A.J., 2013, "Paleoclimatic Reconstruction of the Southeastern United States", geology report with F.J. Vento.

Vega, A.J., 2007, "Getting Trivial", The Clarion News, Sept. 4.

Vega, A.J., 2007, "More Atmospheric Optics", The Clarion News, Jan. 7.

Vega, A.J., 2006. "Weather Facts", The Clarion News, Dec. 26.

Vega, A.J., 2006. "The Influence of Volcanic Activity on Climate", *The Clarion News*, July 3.

Vega, A.J., 2005. "What Happened in New Orleans" (relative to Hurricane Katrina), The Clarion News, Sept. 6.

Vega, A.J., 2005. "The 1900 Galveston Hurricane", The Clarion News, July, 5.

Vega, A.J., 2005. "Downbursts, Microbursts, and Macrobursts", The Clarion News, May 31.

Vega, A.J., 2004. "Forecast Looks Good for Santa's Trip Here", The Clarion News, Dec. 23.

Vega, A.J., 2004. "Hurricanes". The Clarion News, June 6.

Vega, A.J., 2003. "Nor'Easters", The Clarion News, Dec. 30.

Vega, A.J., 2003. "Santa's Travel Forecast, *The Clarion News*, Dec. 23.

Vento, F.J. and A.J. Vega, 2002. "Modern and Paleo-Climatology of Allegheny County, PA", Geology/Climatology Report, R. in preparation.

Vega, A.J., 2002. "More Weather Records", The Clarion News, Dec. 30.

Vega, A.J., 2002. "The Most of the Weather", The Clarion News, Dec. 23.

Vega, A.J., 2002. "Weather Facts", The Clarion News, Nov. 25.

Vento, F.J. and A.J. Vega, 2002. "Geomorphology Report Detailing Results of Geomorphological Investigations at the Proposed Nelson Sewerage Pipeline Corridor, Tioga County, Pennsylvania", submitted to Richard Grubb and Associates, Inc. and the Nelson Twp. Board of Supervisors.

Vega, A.J. 2002. "Lightning and Lightning Safety:, June 23.

- Vega, A.J., 2002. "Summer Droughts", The Clarion News, May 28.
- Vega, A.J., 2001. "Atmospheric Optics", The Clarion News, Dec. 31.
- Vega, A.J., 2001. "Autumn Explained, and a look at the Winter Forecast", The Clarion News, Dec. 24.
- Vega, A.J., 2001. "El Nino Unraveling the Mystery", Oct. 18.
- Vega, A.J., 2001. "Thunderstorms", The Clarion News, Sept. 4.
- Vega, A.J., 2001. "The Summer Forecast", The Clarion News, May 28.
- Vega, A.J., 2001. "Severe Weather Preparedness, Tornadoes", The Clarion News, April 17.
- Vega, A.J., 2001. "Modern and Paleo-Climate of Puerto Rico". Geology/Paleoclimatology Final Report (with Frank J. Vento), submitted to the United States Department of Navy and R. Christopher Goodwin and Associates.
- Vento, F.J., B. Straw, A.J. Vega, 2000. "Phase IA Geomorphological Investigations Along the Proposed Rt. 405 Bridge Replacement Project, Muncy, Pennsylvania", submitted to Steve Tull, Greiner, Inc.
- Vega, A.J., 2000. "Fog Development: Part II", The Clarion News, Dec. 28.
- Vega, A.J., 2000. "Regional Climatology of Pointe Coupee Parish, Louisiana", Geology/Plaeoclimatology Final Report (with Frank J. Vento) submitted to the New Orleans District Army Corps of Engineers.
- Vega, A.J., 2000. "Regional Climatology of Pearl River County, Mississippi", preliminary Geology/Paleoclimatology Final Report (with Frank J. Vento), submitted to the United States Department of Navy.
- Vega, A.J., 2000. "Fog Development: Part I", The Clarion News, Dec. 26.
- Vega, A.J., 2000. "Clarion's Winter Forecast", The Clarion News, Nov. 22.
- Vento F.J., and A.J. Vega, 2000. "Geomorphological Investigations along the Proposed West Fork of the East Branch of the Black River Channel Restoration Study Area, Medina County, Ohio", submitted to R. Christopher Goodwin and Associates.
- Vega, A.J., 2000. "Greenhouse Warming", The Clarion News, Oct. 31.
- Vega, A.J., 2000. "Forecasting Error", The Clarion News, Sept. 4.
- Vega, A.J., 2000. "Unsung Heros of the Creative World", Tantalus (on-line literary magazine, www.tantalusmagazine.com), Vol 1, No. 2, August.
- Vega, A.J., 2000. "Generation a Weather Forecast", The Clarion News, July 4.
- Vega, A.J., 2000. "What is a Forecast?", The Clarion News, May 30.
- Vega, A.J., 1999. "Darwin Revisited", The Clarion Call, Oct. 7.
- Vega, A.J., 1998. "The Climatology of North Hamption County, PA", Geology/Climatology Report (with Frank J. Vento), R. Christopher Goodwin and Associates.
- Vega, A.J., 1997. "The Climatology of Northern Alabama", Geology/Climatology Report (with Frank J. Vento), R. Christopher Goodwin and Associates.

- Vega, A.J., K.M. Lau and C.H. Sui, 1996. "A Synoptic Climatology of the United States", in Final Report of the 1996 NASA-ASEE Summer Faculty Fellowship Program in Aeronautics and Research at the Goddard Space Flight Center, Greenbelt, Maryland, Department of Materials and Nuclear Engineering, A.J. Clark School of Engineering, University of Maryland, College Park, pp. 77-78.
- Vega, A.J., 1996. "A Generalized Climatology of the Louisiana and Texas Coastal Plain", Geology/Climatology report (with Frank J. Vento), R. Christopher Goodwin and Associates.
- Vega, A.J., 1996. "A Basic Climatology and Paleoclimatology for the Dismal Swamp Region of Virginia", Geology/Paleoclimatology report, R. Christopher Goodwin and Associates.
- Vega, A.J., 1995. "Regional Climatology of Pointe Coupee Parish, Louisiana", preliminary Geology/Plaeoclimatology report (with Frank J. Vento) R. Christopher Goodwin and Associates.
- Vega, A.J., 1995. "Regional Climatology of Pearl River County, Mississippi", preliminary Geology/Paleoclimatology report (with Frank J. Vento), R. Christopher Goodwin and Associates.
- Vega, A.J., 1995. "Climatology of Russell County AL, and Stewart County, GA", Geology/Plaeoclimatology report (with Frank J. Vento), R. Christopher Goodwin and Associates.
- Vega, A.J., 1995. "Paleoclimatology of Jefferson County, Florida", Geology/Paleoclimatology report (with Frank J. Vento), Florida Corps of Engineers.
- Vento, F.J., A.J. Vega, R.S. Toomey III, L.P. Fay, P.A. Delcourt, H.R. Delcourt, G.S. Brush, and F.B. King, 1994. "Paleoenvironmental and Paleoclimatic Reconstruction of Pennsylvania over the Last 15,000 Years", submitted to the Pennsylvania Bureau for Historic Preservation, William Penn Museum and Historical Commission, Harrisburg, PA, July.

GRANTS/HONORARIA

- Vega, A.J., 2019. Research Presentation/Conference Attendance, Annual Meeting of the Association of American Geographers, Denver, Colorado, April 6-10, 2020, University-Wide Faculty Development Grant, Clarion University, \$1000.00.
- Vega, A.J. and C. Smith. 2019. International Business and Environmental Stewardship: A Multidisciplinary Approach it a Study Abroad Learning Environment, submitted to Group Faculty Development Committee: Teaching and Learning Grant, Clarion University, in review, \$3,500.00
- Wright, E. and A.J. Vega. 2018. Student Travel Grant, Conference Presentation of Growing Season Changes and Variability for the Northeastern United States, Clarion University, \$350.00
- Vega, A.J. 2018. Atmospheric Circulation Variability and Vintage Port Wine, given at the Annual Meeting of the Association of American Geographers, April 10-14, New Orleans, LA, University-Wide Faculty Development Grant, Clarion University, \$800.00
- Vento, F.J., A.J. Vega and H. Rollins, 2016. Genetic Stratigraphy: Late Pleistocene through the Holocene Paleoclimates and Paleo-environments of Pennsylvania, subcontracted through P.I. K.W. Carr, \$500,000 NSF grant
- Vento, F.J. J.M. Adovasio and A.J. Vega, 2016. In Early Human Life on the Southeastern Coastal Plain, Sub-contracted through PIs A. Goodyear and C. Moore, \$1,2000,000 NSF grant
- Vega, A.J., 2006. Conference Attendance, Association of American Geographers Annual Meeting, San Francisco, CA, College of Arts and Sciences Faculty Development Grant, Clarion University, Grant Amount: \$800.00
- September 2005. Appeared on "Hurricane Katrina, An American Catastrophe" a History Channel Special, ABC News Productions

- Vega, A.J., 2004. "2005 AAG Conference Attendance", College of Arts and Sciences Faculty Development Grant, Clarion University, *Grant Amount:* \$600.00
- Vega, A.J., 2004. "2005 Conference Attendance, Association of American Geographers Annual Meeting, Denver, CO", University-Wide Faculty Development Grant, Clarion University, *Grant Amount:* \$800.00.
- Vega, A.J., 2003. "Conference Attendance, Discussion Panel Presentation, 2003 Association of American Geographers Meeting in Philadelphia", College of Arts and Sciences Faculty Development Grant, Clarion University, Grant Amount: \$775.00
- Vega, A.J., 2003. "American Geographers Conference, Philadelphia, PA", University-Wide Faculty Professional Development Committee, Grant Amount: \$500.00
- Vega, A.J., 2002. "American Geographers Conference", University-Wide Faculty Professional Development Committee, Grant Amount: \$500.00
- Vega, A.J., 2002. "Conference Attendance, Discussion Panel Presentation, 2003 Association of American Geographers Meeting in New Orleans", College of Arts and Sciences Faculty Development Grant, Clarion University, Grant Amount: \$775.00
- Vega, A.J., 2001. "Development of Climate Day Activities at the 2002 Association of American Geographers Meeting in Los Angeles, CA", College of Arts and Sciences Faculty Development Grant, Clarion University, Grant Amount: \$735.00
- Rohli, R.V., A.J. Vega and K.G. Henderson, 2001. "Atmospheric Forcing and the Hypoxic Zone in the Northern Gulf of Mexico", submitted to Louisiana Sea Grant Institute. Grant Amount: \$158,000.00 unfunded
- Sohn, Y., P.Ryberg, A.J. Vega, R. Mckay, F. Vento, C. Williams, 2000. "Adaptation and Implementation of the NCGIA GIS Core Curriculum with an Alternative Laboratory Instructional Model for Cross-Disciplinary Environmental Science Programs", submitted to NSF, Grant Amount \$148,868.00 unfunded
- Rohli, R.V., A.J. Vega and K.G. Henderson, 2000. "Collaborative Proposal: Atmospheric Forcing and the Northern Gulf of Mexico Hypoxic Zone", NSF, Grant Amount: \$122,125.00 unfunded
- Rohli, R.V., A.J. Vega and K.G. Henderson, 1999. "Atmospheric Forcing and the Hypoxic Zone in the Northern Gulf of Mexico", submitted to NOAA Program for Global Change. Grant Amount: \$108,645.00 unfunded
- Vega, A.J., C.-H. Sui and R.V. Rohli 1999. "Effect of Atmospheric Circulation Variability on Environmental Variables Affecting Salinity Fluxes in Chesapeake Bay", submitted to the National Oceanographic and Atmospheric Administrations Climate and Global Change Program, October, 1998. Grant Amount Requested: \$88,231.71 unfunded
- Vega, A.J., 1998. Investigation into Salinity Fluxes of Chesapeake Bay, SHEE Grant Proposal, Amount Requested, \$4,068.00, unfunded.
- Vega, A.J., 1997. "The Linkage Between Atmospheric Teleconnections and United States Climate Regions", Invited Lecturer, Department of Geography, Kent State University, Feb. 21, Kent, OH.
- Vega, A.J., 1996-1999. NASA JOVE (Joint Venture) Research Alliance, "Atmospheric Circulation Anomalies Affecting the Susquehanna River Basin, PA", Clarion University NASA JOVE Coordinator. Grant Amount: \$756,425.07
- Vega, A.J., 1996. Clarion University Out-Service Training Funds. Grant Amount: \$400.00
- Ryberg, P.T., and A.J. Vega, 1996-1997. "Effect of Precipitation (Recharge) on Ground Water and Surface Water Quality and Discharge Rates in the Toby Creek Watershed, Clarion County, Pennsylvania", State System of Higher Education Professional Development Grant Award. Grant Amount: \$6,666.00

Vega, A.J., 1994. "An Examination of Paleoclimatic Events Along the Middle Orinoco River", College of Arts and Sciences Faculty Development Grant, Clarion University. Grant Amount: \$1,000.00

CONTRACTS (total contract amounts exceed \$1,000,000)

- Vento, F.J. and A.J. Vega, 2004. "The Modern and Paleo-Climatology of North Central Texas", Geology / Climatology Report, for R. Christopher Goodwin and Associates.
- Vento, F.J. and A.J. Vega, 2002. "Modern and Paleo-Climatology of Allegheny County, PA", Geology/Climatology Report, for R. Christopher Goodwin and Associates.
- Vento, F.J. and A.J. Vega, 2002. "Geomorphology Report Detailing Results of Geomorphological Investigations at the Proposed Nelson Sewerage Pipeline Corridor, Tioga County, Pennsylvania", submitted to Richard Grubb and Associates, Inc. and the Nelson Twp. Board of Supervisors.
- Vega, A.J., 2001. "Modern and Paleo-Climate of Puerto Rico". Geology/Paleoclimatology Final Report (with Frank J. Vento), submitted to the United States Department of Navy and R. Christopher Goodwin and Associates.
- Vento, F.J., B. Straw, A.J. Vega, 2000. "Phase IA Geomorphological Investigations Along the Proposed Rt. 405 Bridge Replacement Project, Muncy, Pennsylvania", submitted to Steve Tull, Greiner, Inc.
- Vega, A.J., 2000. "Regional Climatology of Pointe Coupee Parish, Louisiana", Geology/Plaeoclimatology Final Report (with Frank J. Vento) submitted to the New Orleans District Army Corps of Engineers. Paleoclimate
- Vega, A.J., 2000. "Past and Present Climate of Dismal Swamp, VA-NC", preliminary Geology/Paleoclimatology Final Report (with Frank J. Vento), submitted to the United States Department of Navy.
- Vento F.J., and A.J. Vega, 2000. "Geomorphological Investigations along the Proposed West Fork of the East Branch of the Black River Channel Restoration Study Area, Medina County, Ohio", submitted to R. Christopher Goodwin and Associates.
- Vega, A.J., 1998. "The Climatology of Eastern Pennsylvania", Geology/Climatology Report (with Frank J. Vento), R. Christopher Goodwin and Associates.
- Vega, A.J., 1997. "The Climatology of Northern Alabama", Geologic Report (with Frank J. Vento) for R. Christopher Goodwin and Associates.
- Vega, A.J., 1996. "A Generalized Climatology of the Louisiana and Texas Coastal Plain", Geologic Report (with Frank J. Vento) for R. Christopher Goodwin and Associates.
- Vega, A.J., 1996. "A Basic Climatology and Paleoclimatology for the Dismal Swamp Region of Virginia", Geologic report, R. Christopher Goodwin and Associates.
- Vega, A.J., 1995. "Regional Climatology of Pointe Coupee Parish, Louisiana", Geologic report (with Frank J. Vento) R. Christopher Goodwin and Associates.
- Vega, A.J., 1995. "Regional Climatology of Pearl River County, Mississippi", Geologic report (with Frank J. Vento), R. Christopher Goodwin and Associates.
- Vega, A.J., 1995. "Climatology of Russell County AL, and Stewart County, GA", Geologic report (with Frank J. Vento), R. Christopher Goodwin and Associates. Paleoclimate Contract Amount: \$250.00
- Vento, F.J. and A.J. Vega, 1995. "Geoarcheology and Paleoclimatology of Jefferson County, Florida", Florida Corps of Engineers.
- Vento, F.J. and A.J. Vega, 1995. "Geoarcheology and Paleoclimatology of Jefferson County, Florida", Florida Corps of Engineers.

- Vento, F.J., A.J. Vega, R.S. Toomey III, L.P. Fay, P.A. Delcourt, H.R. Delcourt, G.S. Brush, and F.B. King, 1994. "Paleoenvironmental and Paleoclimatic Reconstruction of Pennsylvania over the Last 15,000 Years", Pennsylvania Bureau for Historic Preservation, William Penn Museum and Historical Commission, Harrisburg, PA, July.
- Completed a preliminary Geophysical/Geoarcheological/Paleoclimatic survey at Nina Plantation Pointe Coupee, LA, New Orleans Corps of Engineers (with Frank Vento, August 1994).
- Completed a Phase I Geoarcheological and Paleoclimatological survey at East Brady, PA, in conjunction with PennDot for the establishment of a new bridge (with Frank Vento, October 1994).
- Completed a Phase I Geoarcheological and Paleoclimatological survey at Big Run, PA, for the establishment of a sewer treatment facility (with Frank Vento, November 1994).
- Completed a Geophysical survey of the Antietam Battlefield, Sharpsburg, ME, for National Parks Service (with Frank Vento, December 1994).

PROFESSIONAL PRESENTATIONS

- Wright, E, A.J. Vega, and R.V. Rohli, 2019. Changes in Growing Season in the Northeastern United States, given at the Undergraduate/Graduate Research Conference, Clarion University, April 11., Clarion, PA.
- Vega, A.J., S.A. Ates, and R.V. Rohli, 2018. Atmospheric Circulation Variability and Vintage Port Wine, to be given at the Annual Meeting of the Association of American Geographers, April 10-14, New Orleans, LA.
- Hemmings, C.A, J.M. Adovasio, A.E. Marjenin, F.J. Vento and A.J. Vega. 2014. The Old Vero Man Site (8IR009): Current Investigations Suggest Pleistocene Human Occupation. Symposium "Early Human Life on the Southeastern Coastal Plain", 71st Annual Southeastern Archaeological Conference, Greenville, SC.
- Vega, A.J., 2010, "Alternative Energy Options for Western Pennsylvania", Clarion-Limestone Sustainability Fair, April 22.
- Vento, F.J., H.B. Rollins, A.J. Vega, J.M. Adovasio, P. Stahlman, D.B. Madsen, and J.S. Illingworth, 2008. Development of a Late Pleistocene-Holocene Genetic Stratigraphic Framework for the Mid-Atlantic Region: Implications in Archaeology, delivered at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, B.C., 26-30 March.
- Vega, A.J., 2007, "A Geographic Based OnLine Learning Paradigm", delivered at the Annual Meeting of the Association of American Geographers, April 14-17, San Francisco, CA.
- Vega, A.J., 2006, "Weather Studies at Clarion University", Educational Talent Search Visitation Day, Nov. 9, Clarion University.
- Vega, A.J., 2006, "Alternate Energy Technologies", Pennsylvania State System of Higher Education Facilities Directors Meeting, April 12, Altoona, PA.
- Vega, A.J., 2006. "Building Energy Efficiency From the Ground Up", Northwest Pennsylvania Regional Energy Conference, April 8, Clarion, PA.
- Vega, A.J., 2005. "A Reevaluation of Geographic Based Distance Learning" delivered at the Annual Meeting of the Association of American Geographers, April 5-9, Denver, CO.
- Vega, A.J., 2004. "Relationships between North Atlantic Air and Sea Temperature and Tropical Cyclone Intensity", delivered at the Annual Meeting of the Pennsylvania Geographic Society, Nov. 5-6, New Cumberland, PA.
- Vega, A.J., 2004. "Clustering Meteorology and Mathematics in a General Education Format", delivered at the Annual Meeting of the Association of American Geographers, March 14-19, Philadelphia, PA.

- Vega, A.J., 2003. "Instructional Technology and Meteorology", delivered at the 2003 Annual Meeting of the Pennsylvania Geographic Society, Sept. 25-27, Erie, PA.
- Russo, M., R.V. Rohli, and A.J. Vega, 2003. "Atmospheric Circulation and Statewide Anomalously-High Tropospheric Ozone Concentrations In Louisiana, delivered at the Annual Meeting of the Louisiana Academy of Sciences, March 21, Gonzales, LA.
- Vega, A.J., 2003. "An On-line Model for Teaching Meteorology", delivered at the Annual Meeting of the Association of American Geographers, March 4-8, New Orleans, LA.
- Rohli, R.V., M. Russo, and A.J. Vega, 2003. "Synoptic Circulation and Regional Tropospheric Ozone in Louisiana", delivered at the Annual Meeting of the Association of American Geographers, March 4-8, New Orleans, LA.
- Gendler, S.I. and A.J. Vega, 2003. "Meteorology and Mathematics, a Course Pairing in the Making Connections Program at Clarion University, to be delivered at the Annual Meeting of the American Mathematical Society, Jan 15-18, Baltimore, MD.
- Vega, A.J., 2002. "Relationships between Chesapeake Bay Salinity and Atmospheric Circulation Variations", Center for Natural Resources and the Environment Spring Seminar Series, May 2, Clarion University, Clarion, PA.
- Hardy, J.W., and A.J. Vega, 2002. "1998-99 Northeastern Drought: Examination of Possible Causes", Annual Meeting of the Association of American Geographers, March 19-23, Los Angeles, CA. Abstract published pg. 243 (CD ROM).
- Vega, A.J., 2002. "A Re-examination of Northeastern US Precipitation Variability" Annual Meeting of the Association of American Geographers, March 19-23, Los Angeles, CA. Abstract published pg. 632-633 (CD ROM).
- Gendler, S.I. and A.J. Vega, 2002. "Components of Meteorology and Mathematics in a Linked Cluster Course", Integrating Mathematics and Other Disciplines Session, Annual Meeting of the Mathematics Association of America, Jan., San Diego, CA.
- Vega, A.J., 2001. "Upper-Atmospheric Causes of Northeastern United States Precipitation Extremes", Annual Meeting of the Pennsylvania Geographical Society, Nov. 8-10, Johnstown, PA. Abstract published pg. 46.
- Nicholson, L., and A.J. Vega, 2001. Vega, A.J., 2001. "Climatic Contributions to Porcupine Caribou Migration Variations", Annual Meeting of the Pennsylvania Geographical Society, Nov. 8-10, Johnstown, PA. Abstract published pg. 25.
- Gendler, S.I. and A.J. Vega, 2001. "Meteorology and Mathematics, Linking Two Courses in General Education", delivered at the Annual Conference on Advancing Teaching in College Classrooms and Campus Cultures, March 15-17, State College, PA.
- Vega, A.J., 2001. "North Atlantic Tropical Cyclone Intensities and Macro-Scale Temperature Variations", delivered at the Annual Meeting of the Association of American Geographers, Feb. 27-March 4, New York, NY. Abstract published pg. 965 (CD ROM).
- Vega, A.J., 2000. "The Impact (?) of El Nino on Pennsylvania Precipitation", delivered at the Annual Meeting of the Pennsylvania Geographic Society, Oct. 19-21, Wilkes-Barre, PA.
- Vega, A.J., 2000. "Global Warming: Fact or Fiction?", delivered Oct. 11, Honorary Speaker, University Community Relations Breakfast, Clarion, PA.
- Vega, A.J. and R.V. Rohli, 2000. "Investigation into Pennsylvania's Summer Dry Period", delivered at the Annual Meeting of the Association of American Geographers, April 4-8, Pittsburgh, PA. Abstract published pg. 737-738 (CD ROM).

- Matyas, C.J. and A.J. Vega, 2000. "Synoptic Investigation of North Atlantic Tropical Cyclones", delivered at the Annual Meeting of the Association of American Geographers, April 4-8, Pittsburgh, PA. Abstract published pg. 465-466 (CD ROM).
- Vega, A.J. and C.-H. Sui, 1999. "The Importance of Climate Variations on Chesapeake Bay Salinity", delivered at the 1999 Annual Meeting of the Association of American Geographers, March 23-27, Honolulu, Hawaii. Abstract published pg. 514 (CD ROM).
- Rohli, R.V., A.J. Vega, M.R. Binkley, S.D. Britton, H.E. Heckman, J.M. Jenkins, Y.Ono, and D.M. Sheeler, 1999. "Great Lakes Regional Circulation Patterns and Association to Atmospheric Teleconnections", delivered at the 1999 Annual Meeting of the Association of American Geographers, March 23-27, Honolulu, Hawaii. Abstract published pg. 611 (CD ROM).
- Rohli, R.V., M.R. Binkley, S.D. Britton, H.E. Heckman, J.M. Jenkins, D.E. Morida, Y. Ono and A.J. Vega, 1998. "700 HPA Synoptic Circulation and Stream Discharge in the Great Lakes Basin", delivered at the 1998 Annual Applied Geography Conference, Association of American Geographers, Oct, 22-24, Lexington, KY.
- Vega, A.J., 1998. "Causes of Extreme Northeastern United States Climatic Variations", delivered at the 1998 NASA JOVE Retreat, July 7-10, Cocoa Beach, FL.
- Matyas, C. and A.J. Vega, 1998. "The Effects of Northeastern United States Climate Variations on Salinity Changes in Chesapeake Bay", delivered at the 12th National Conference on Undergraduate Research, April 23-25, Salisbury, MD.
- Krupar, T. and A.J. Vega, 1998. "North Atlantic Tropical Cyclone Variations During Cold and Warm Northern Hemisphere Years and Future Tropical Cyclone Frequency Implications", delivered at the 12th National Conference on Undergraduate Research, April 23-25, Salisbury, MD.
- Vega, A.J., C.H. Sui and K.M. Lau, 1998. "Geopotential Height Anomalies Associated with Surface Climate Extremes in the Northeastern United States", delivered at the 1998 Annual Meeting of the Association of American Geographers, Mar 25-29, Boston, MA. Abstract published pp 810 (CD ROM)
- Vega, A.J., C.H. Sui and K.M. Lau, 1997. "Northern Hemisphere Flow Anomalies and US Temperature and Precipitation Variability", delivered at the 20th Annual Applied Geography Conference, Nov 12-15, Albuquerque, NM. Abstract published pp 204.
- Vega, A.J. 1997. "United States Surface Climates Linked to Atmospheric Flow Anomalies", delivered at the 1997 Annual Meeting of the Pennsylvania Geographic Society, Oct 31, York, PA. Abstract published pg 18.
- McCracken, D.M. and A.J. Vega, 1997. "Surface Climate Regimes of the United States", delivered at the 1997 Annual Meeting of the Pennsylvania Geographic Society, Oct 31, York, PA.
- Matyas, C. and A.J. Vega, 1997. "Pacific/North American Teleconnection Variations and Precipitation Fluxes in the Conterminous United States", delivered at the 1997 Annual Meeting of the Pennsylvania Geographic Society, Oct 31, York, PA.
- Sui, C.H., A.J. Vega and K.M. Lau, 1997. "Decadal and Interannual Climate Variations in the Northeastern US", delivered at the Workshop on Climate Change Impacts in the Mid-Atlantic Region, Sept. 9-11, Penn State University, University Park, PA.
- Vega, A.J., C.H. Sui and K.M. Lau, 1997. "A Baseline Analysis of the United States Surface Climate and Relationships to the Generalized Atmospheric Flow", delivered to members of the Laboratory for Atmospheres, Climate and Radiation Branch, Code 913, NASA Goddard Space Flight Center, Aug 16, Greenbelt, MD.
- Fiscus, D.M. and A.J. Vega, 1997. "The Derivation of United States Temperature and Precipitation Regions", delivered at the 11th National Conference on Undergraduate Research, April 24-26, Austin, TX. Abstract published pp. 251.

- McCracken, D.M. and A.J. Vega, 1997. "Atmospheric Teleconnections and United States Regional Climates", delivered at the 11th National Conference on Undergraduate Research, April 24-26, Austin, TX. Abstract published pp. 252.
- Vega, A.J., C.H. Sui and K.M. Lau, 1997. "Change and Variability in United States Climate Regions", delivered at the 1997 Annual Meeting of the Association of American Geographers, April 1-5, Fort Worth, TX. Abstract published pp. 274.
- Vega, A.J. and C.H. Sui, 1996. "The Effect of Geopotential Height Anomalies on Precipitation in the Susquehanna River Basin", delivered at the 19th Annual Applied Geography Conference, October 17-19, Kansas City, MO. Abstract inadvertently not published.
- Rohli, R.V., G.F. Faiers and A.J. Vega, 1996. "The Relationship Between Climate Variables and Major League Home Run Totals: A Preliminary Analysis", delivered at the 19th Annual Applied Geography Conference, October 17-19, Kansas City, MO. Abstract published pp. 349.
- Vega, A.J., 1996. "A Complete North Atlantic Tropical Cyclone Climatology", delivered at the Hurricane Meteorology Workshop of the 1996 Annual Meeting of the Pennsylvania Geographic Society, October 11-12, Carlisle, PA.
- Vega, A.J., C.H. Sui and K.M. Lau, 1996. "A United States Climate Regionalization", delivered at the NASA JOVE Summer Faculty Research Seminar, Goddard Space Flight Center, August 8, Greenbelt, MD.
- Vega, A.J., K.G. Henderson and R.V. Rohli, 1996. "Gulf of Mexico Mid-Tropospheric La Nina and El Nino Signals", delivered at the 1996 Annual Meeting of the Association of American Geographers, April 9-13, Charlotte, N.C. Abstract published pp. 302.
- Vento, F.J. and A.J. Vega, 1996. "Genetic Stratigraphy, Climate Change, and Paleosol Development Within the Susquehanna River Drainage System,", delivered at the 1996 Annual Meeting of the Association of American Geographers, April 9-13, Charlotte, N.C. Abstract published pp. 302.
- Vega, A.J., 1995. "North Atlantic Circulation Anomalies and Southern United States Precipitation", delivered at the 1995 Annual Meeting of the Pennsylvania Geographical Society, November 3-4, West Chester, PA. Abstract published pp 12.
- Vega, A.J., R.V. Rohli and K.G. Henderson, 1995. "Short-Term Variations of the Pacific / North American Teleconnection Pattern", delivered at the 1995 Annual Meeting of the Association of American Geographers, March 14-18, Chicago, IL. Abstract published pp. 312.
- Vega, A.J., R.V. Rohli and K.G. Henderson, 1994. "Comparison of Monthly and Intramonthly Indices for the Pacific-North American Teleconnection Pattern", delivered at the 17th Annual Applied Geography Conference, East Lake Division of the Association of American Geographers, October 12-15, Kent-Akron, Ohio. Abstract published pp. 241.
- Vega, A.J., R.V. Rohli and K.G. Henderson, 1994. "Intramonthly Variations of the Five-Day Pacific-North American Teleconnection Index," delivered at the Annual Meeting of the Pennsylvania Geographical Society, October 7-8, Somerset, PA. Abstract published pp 10.
- Vega, A.J., 1994. "Regional-Scale Circulation and Precipitation Variability in the Southern United States", delivered at the 1994 Annual Meeting of the Association of American Geographers, March 29 April 2, San Francisco, CA. Abstract published pp. 388.
- Vega, A.J., 1994. "Western North Atlantic Circulation Anomalies and Precipitation Forcing in the Southern United States", delivered at Clarion University, March 18, Clarion PA.
- Vega, A.J., 1993. "Freeze/Frost Susceptibility in the Southern Region", delivered at the 1993 Southern Regional Climate Center Open House, Louisiana State University, November 18th, Baton Rouge, LA.

- Vega, A.J. and K.G. Henderson, 1993. "The Regionalization of Precipitation in the U.S. South", delivered at the Annual Meeting of the Association of American Geographers, April 6-10, Atlanta, GA. Abstract published pp. 243.
- Vega, A.J. and K.G. Henderson, 1993. "PCA Derived Precipitation Regions in the Southern United States", delivered at the Annual Meeting of the Southwest Division of the Association of American Geographers, March 18-20, New Orleans, LA.
- Vega, A.J., 1992. "Long-Term Climatic Variability of Modeled and Measured Runoff Within the Lake Pontchartrain Basin", delivered at the "Basics of the Basin" Research Symposium, University of New Orleans, May 14-15, New Orleans, LA. Abstract pp 36.
- Binkley, M.S. and Vega, A.J., 1991. "Synoptic Conditions Influencing Hurricane Paths in the North Atlantic Basin, 1960 1989", delivered at the Annual Meeting of the Association Of American Geographers, April 13-17, Miami, Fl. Abstract published pp. 23.
- Vega, A.J. 1991. "Statistical Analysis of Tropical Cyclones Affecting the Mississippi Gulf Coast, 1960-89", delivered at the Fifty-Fifth Annual Meeting of the Mississippi Academy of Sciences, February 21-22, Jackson, MS.
- Vega, A.J. and M.S. Binkley, 1990. "Statistical Analysis of Tropical Cyclones in the North Atlantic Basin", delivered at the Fourteenth Annual Meeting of the National Weather Association, October 15-19, New Carrollton, MD. Abstract published National Weather Digest, 15:2:41.
- Vega, A.J. and M.S. Binkley, 1990. "A Statistical Relationship Between Hurricane Formation, Intensity, and Landfall", delivered at the Seventh Annual Meeting of the Association of American Weather Observers, October 11-13, Minneapolis, Minnesota.
- Vega, A.J. and M.S. Binkley, 1990. "Investigation into Hurricane Hugo: Where, When and Why", delivered at the Fifty-Fourth Annual Meeting of the Mississippi Academy of Sciences, February 20-21, Biloxi, MS. Abstract published pp. 61.

INVITED PRESENTATIONS

- Vega, A.J., 2018. "Evidence of Anthropogenic Climate Change," delivered to the faculty and students of Venango Catholic High School, October, 11.
- Vega, A.J., 2017. "The Lifelong Process of Learning", Keynote address, The Honor Society of Phi Kappa Phi Initiation Ceremony, Clarion University, May 7.
- Vega, A.J., 2016. "Eigenvector Analysis is Climatology", delivered to the faculty and students of the Geography and Geology Department, University of Southern Mississippi, February 10.
- Vega, A.J., 2016. "Expanding the Scope of the Traditional University Department Through the Creation of True Interdisciplinary 'Hybrid' Degree Programs and Concentrations", delivered to the faculty and students of the Geography and Geology Department, University of Southern Mississippi, February 10.
- Vega, A.J. 2014. "Learning to Learn", Keynote address, The Honor Society of Phi Kappa Phi Initiation Ceremony, Clarion University, May 4.
- Vega, A.J. 2014. "The Future of Geosciences", delivered to the faculty and students of The Department of Geosciences, Mississippi state University, Mississippi State, MS, April 29.
- Vega, A.J. 2014. "Eigenvector In Climatological Analysis", delivered to the faculty and students of The Department of Geosciences, Mississippi state University, Mississippi State, MS, April 28.
- Vega, A.J., 2012. "Techniques and Applications in Synoptic Climatology", delivered to the faculty and students of The Department of Geography, Central Washington University, May 30, Ellensburg, WA.

- Vega, A.J. 2012. "New Directions in Traditional Inter-Disciplinary Pedagogy", delivered to the faculty and students of The Department of Geography, Central Washington University, May 30, Ellensburg, WA.
- Vega, A.J., 2002. "Relationships between Chesapeake Bay Salinity and Atmospheric Circulation Variations", Center for Natural Resources and the Environment Spring Seminar Series, May 2, Clarion University, Clarion, PA.
- Vega, A.J., 2001. "Techniques and Applications in Synoptic Climatology", delivered to the faculty and students of the Department of Geosciences, Mississippi State University, Miss. State, MS, Feb 23.
- Vega, A.J., 2001. "El Niño / Southern Oscillation Events and Climate Impacts", delivered to the faculty and students of the Department of Geosciences, Mississippi State University, Miss. State, MS, Feb 23.
- Vega, A.J., 1997. "The Linkage Between Atmospheric Teleconnections and United States Climate Regions", delivered to the faculty and students of Kent State University, Invited Lecturer (Department of Geography), Feb. 21, Kent, OH. Honoraria: \$100.00.
- Vega, A.J., 1995. "North Atlantic Mid-Tropospheric Flow Anomalies and the North American Climate", delivered to the faculty and students of the Pennsylvania State University, Invited Lecturer (Department of Geography), Feb. 23, State College, PA.

BOOKS/ARTICLES REVIEWED

- 2018- present Reviewer for The Open Agriculture Journal
- 2017 present Textbook reviewer, Cambridge University Press.
- 2016 present Reviewer for Geoscience Research, research journal.
- 2016 present Textbook reviewer for McGraw Hill Publishing
- 2016 Reviewer for Understanding Weather and Climate, Pearson Education.
- 2016 present Reviewer, Oxford University Press.
- 2015 Reviewer for Earth Science, Norton Press
- 2004 present Reviewer for National Weather Digest
- 2002 Review of Study Guide for Understanding Weather and Climate, R.V. Rohli and T.W. Schmidlin, Prentice Hall Publishing, Upper Saddle River, New Jersey
- 2002 Review of Exercises for Weather and Climate, 5th Ed, Greg Carbone, Prentice Hall Publishing, Upper Saddle River, New Jersey
- 2001 Review of third draft of Earth Systems Science, Ed Spencer, McGraw Hill, Dubuque, IA
- 2001 Review of Meteorology, S. Ackerman and J. Knox, Brooks Cole Thomson Learning
- 2000 Review of Earth Systems Science, 2nd draft, McGraw Hill, Dubuque IA
- 2000 First Draft Review of Earth Science, Ed Spencer, McGraw Hill, Dubuque IA
- 2000 Review of Exercises for Weather and Climate 4th Ed, Greg Carbone, for Prentice Hall Publishing, Upper Saddle River, New Jersey
- 1998 Review of The Atmosphere, 7th Edition, Frederick K. Lutgens and Edward J. Tarbuck, for Prentice Hall Publishing, Upper Saddle River, New Jersey
- 1997 Review of Foundations of Earth Science, Frederick K. Lutgens and Edward J. Tarbuck, for Prentice Hall Publishing, Upper Saddle River, New Jersey
- 1996 Review of The Earth's Atmosphere, Steve Ackerman, for Wadsworth Publishing, Belmont, CA
- 1996 Published Book Review, The Climate and Weather of Florida, Henry, J.A., K.M. Portier, and J. Coyne, in Annals of the Association of American Geographers, 86:1:149-150
- 1994 present Peer reviewer for various climate/meteorology/geography journals and NSF

POST DOCTORAL EDUCATION

- 2014 Online Instructor Training, Southern New Hampshire University, 3 week course
- 2008 Applying the Quality Matters Rubric Distance Education Workshop, November
- 2005 BlackBoard 6.0 Workshop, January
- 2001 Developing An Online Course, An Eight Week On-line Workshop, June 4 July 30, The National Social Science Association and Cuayamaca College Community Learning Center.
- 2001 Front Page Seminar/Workshop, Clarion University
- 2001 Prentice Hall On-Course Seminar, AAG Conference, New York, NY, March 1.
- 2000 On-Line Blackboard Seminar, August, Clarion University

- 1996 Summer NASA JOVE Research Fellow Laboratory for Atmospheres, Climate and Radiation Branch, Code 913, NASA Goddard Space Flight Center, Greenbelt, MD 20771. May 1996 - August 1996 (working with Dr. K.M. Lau and Dr. C.H. Sui)
- 1996 Hurricane Meteorology Workshop 1996 Annual Meeting of the Pennsylvania Geographical Society, Carlisle, PA, October 11-12.

SERVICES TO PROFESSION

- 2017 present Member of the National Love of Learning Selection Committee of the Phi Kappa Phi Honor Society
- 2008 Meeting Arrangements Committee Member, Pennsylvania Geographical Society, Annual Meeting, Oct. 31 -Nov 1, Clarion, PA
- 2005 Organizer/Chair "Climate Specialty Group Student Paper Competition Sessions", Annual Meeting of the Association of American Geographers, April 5-9, Denver, CO.
- 2004 Chair "Weather and Climate Session III", Annual Conference of the Pennsylvania Geographic Society, Nov. 5-6, New Cumberland, PA
- 2004 Organizer/Chair "Climate Specialty Group Student Paper Competition Sessions", Annual Meeting of the Association of American Geographers, March 14-19, Philadelphia, PA
- 2003 Organizer/Chair "Climate Specialty Group Student Paper Competition Sessions", Annual Meeting of the Association of American Geographers, March 4-8, New Orleans, LA
- 2003 Organizer/Chair "Innovations in Teaching the Atmospheric Sciences", Annual Meeting of the Association of American Geographers, March 4-8, New Orleans, LA
- 2003 Organizer of the "Climate Specialty Group Paper of the Year Award" submission, evaluation, Presentation of award.
- 2001 Chair, Climate Session, Annual Meeting of the Pennsylvania Geographic Society, Johnstown, PA., Nov. 10.
- 2001 Chair AAG Climate Specialty Group Honors Committee
- 2001 Chair Hurricanes II: Paleotempestology and Historical Records session, Annual Meeting of the Association of American Geographers, Feb. 27-March 3, New York, NY
- 2000 Chair Pennsylvania Weather Session, 2000 Annual Meeting of the Association of American Geographers, April 4-8, Pittsburgh, PA
- 1999 Appointed to AAG Pittsburgh, PA Annual Meeting Organization Committee
- 1998 Appointed AAG Climate Specialty Group Honors Committee.
- 1997 Organizer/Chair Outreach to Students Presentation Session, 1997 Annual Meeting of the Pennsylvania Geographic Society, October 31-November 1, York, PA.
- 1996 Organizer/Chair Climate and Water Session, 19th Annual Applied Geography Conference, October 17-19, Kansas City, MO.
- 1996 Chair Afternoon Session of the Hurricane Meteorology Workshop 19 Annual Meeting of the Pennsylvania Geographic Society, October 11-12, Carlisle, PA.
- 1996 Organizer/Chair Outreach to Students Presentation Session, 1996 Annual Meeting of the Pennsylvania Geographic Society, October 11-12, Carlisle, PA.
- 1996 Chair Precipitation Variability Session, Annual Meeting of the Association of American Geographers, April 9-13, Charlotte, NC.
- 1996 Sun UNIX Computer Manager Department of Anthropology, Geography and Earth Science, Clarion University.
- 1995 Member Board of Directors (Young Scholar Director) Climate Specialty Group of the Association of American Geographers to 1997.
- 1995 Chair Climate Variability Session, Annual Meeting of the Association of American Geographers, March 14-18, Chicago, IL.
- 1994 Chair Outreach to Students Committee Pennsylvania Geographic Society to 1998.
- 1993 Founder National Weather Association Chapter at Louisiana State University in conjunction with the established Central Louisiana Chapter of the American Meteorological Society
- 1993-94 President Central Louisiana Chapter of the American Meteorological Society and National Weather
- 1992-93 Secretary Treasurer Central Louisiana Chapter of the American Meteorological Society
- 1990 Session Co-Chairman 14th Annual Meeting of the National Weather Association, October 15-19, New Carrollton, MD.

EDUCATIONAL OUTREACH – PRESENTATIONS

- Vega, A.J., 2018, Evidence of Anthropogenic Climate Change, Venango Catholic High School, Oct 11.
- Vega, A.J., 2014, Snow Roller Formation, KDKA TV (CBS affiliate), Pittsburgh, PA, Jan 27.
- Vega, A.J., 2009, Severe and Unusual Weather, St. Mary's Elementary, March 31.
- Vega, A.J., 2008, What Meteorologists Do, Cranberry Child Care Center, Nov 18.
- Vega, A.J., 2005, Weather Basics, Presentation to Girl Scouts, Clarion University, April 30.
- Vega, A.J., 2005, Introduction to Weather, Presentation to Cub Scouts, Clarion University, April 23.
- Vega, A.J., 2005, Meteorology, Presentation to Clarion Area Kindergarten, April 14.
- Vega, A.J., 2004. "Winter Weather of 2003-2004, Al Lockwood Radio Talk Show, WCED Radio, Dubois, PA, March 2.
- Vega, A.J., 2004. "Global Warming", Frank Stacy Radio Talk Show, WCCR/WCH Radio, Clarion, PA, Feb. 3.
- Vega, A.J., 2002. "Understanding Weather", delivered to Methodist Church of Clarion Preschool
- Vega, A.J., 2000. "What are Storms?", delivered to 4th grade students of North Street Elementary School, Brockway, PA, Sept. 19.
- Vega, A.J., 2000. "Balancing Work and Parenting", given to Take Our Daughters To Work participants, Clarion University, May 4.
- Vega, A.J., 2000. "Severe Weather", delivered to 5th grade students of Sugarcreek and Bruin Elementary Schools, at Bruin Elementary School, Karns City, PA, March 28.
- Vega, A.J., 2000. "Severe Weather", delivered to 4th and 5th grade students of Chicora, Elementary School, at Bruin Elementary School, Karns City, PA, March 21.
- Vega, A.J., 1999. "Understanding Earth Processes", delivered to 5th-12th grade students, Clarion University Continuing Education Seminar, July 12-15, Clarion University.
- Vega, A.J., 1999. "Severe Storms", delivered to Zonta International, March 30, Clarion University.
- Vega, A.J., 1999. "Weather Seminar for Safe Travel", delivered to the Northern Tier Educational Initiative, March 13, Smith Educational Center, Corry, PA.
- Vega, A.J., 1998. "Atmospheric Science Meteorology and Climatology", delivered to the Students of Clarion Limestone Elementary School, April 3, Clarion University.
- Vega, A.J., 1997. "Severe and Unusual Weather", Clarion University Continuing Education Three Week Seminar Series, delivered, March 13-27, Clarion University.
- Vega, A.J., 1997. "Aviation Meteorology", Clarion University Continuing Education Three Week Seminar series, May 8-22, Clarion University canceled due to low enrollment.
- Vega, A.J., 1997. "The Role of NASA in Earth Science", presented at the Anthropology, Geography and Earth Science Department's GIS Laboratory Media Day, March 11, Clarion University.
- Vega, A.J., 1997. "The World of Atmospheric Science" delivered to the students of Immaculate Conception Elementary School, February 27.
- Vega, A.J., 1996. "NASA, Climatology/Meteorology and the Geosciences", delivered to students of the Upward Bound Program, Clarion University, December 7.
- Vega, A.J., 1995. "Principles of the Atmosphere", delivered to students of the Science and Technology Integrated With Mathematics for Minorities (STIMM 1995), Clarion University, July 26.
- Vega, A.J., 1995. "Elementary Weather", delivered to students of East Forest Elementary School, Marienville, PA, April 11.
- Vega, A.J., 1995. "Principles of Weather Forecasting", delivered to the Clarion Immaculate Conception Girl Scout Junior Girl Scout Troop #354, February 23, Clarion University.
- Vega, A.J., 1995. "Severe Weather in Your Life", delivered to the 1-3 grade class of Immaculate Conception Elementary School, March 23, Clarion University.
- Vega, A.J., 1994. "Severe and Unusual Weather", delivered to the Emlenton Junior Girl Scout Troop #409 and the Emlenton Cadette/Senior Girl Scout Troop #813, October 24, Clarion University, Clarion, PA.
- Vega, A.J., 1990. "Severe Weather", delivered to the students of Holy Cross High School, New Orleans, LA, October 1.

OUTREACH SERVICES

Advisor, - Tau Kappa Epsilon Fraternity, Clarion University, Spring 2009-2011

Weather Forecaster/Columnist - Clarion News - April 2000 - present

Advisor - Sigma Pi Fraternity, Clarion University - 2000 - 2001

Board of Directors Member - Clarion Development Corporation - Jan. 1998 - 2001

CoAdvisor - Clarion University Dance Team (with Juanice Vega) - 1995 - 2001

Continuing Education Seminar Instructor - Various meteorology/climatology topics - 1994 - present

Strength Coach - various members of the Clarion University Wrestling, Football, and Dance Teams -

1994 - present

Karate/Self Defense Instructor - Various Seminars (Self Defense/Sexual Assault Defense and Awareness) - Fall 1994 - present.

Karate/Self Defense Instructor - Fall 1996 Continuing Education Semester Course, Clarion University Guitar Instructor - various local students - through Clarion University Continuing Education

- Spring 1998 – 2000

SAS (Statistical Program) Support Representative - Clarion University

DEGREE PROGRAMS / NEW COURSES ESTABLISHED

Developed Environmentally Sustainable International Entrepreneurship course - ES 300 - Special Topics Subject Matter Expert, Development of Online Geoscience Program, Southern New Hampshire University, 2014 Meteorology Online (web course) - ES 280 Fall 2001, Clarion University

Basic Earth Science Online (web course) - ES 111 Fall 2002, Clarion University

Meteorology/Mathematics Making Connections Course Cluster - Fall 2000, Spring 2002, Clarion University Broadcast Meteorology Minor - Department of Anthropology, Geography and Earth Science and the Department of Communications, Clarion University - in progress

Environmental Geosciences Major - Bachelor of Science Degree Program - Department of Anthropology, Geography, and Earth Science, Clarion University, Fall 1994-Spring 1996 (degree program established, Fall 1996) Climate Change (formerly Climatology in Environmental Analysis - GEOG/ES 301), Clarion University

Severe Weather (formerly Advanced Meteorology - GEOG/ES 380), Clarion University

Air Pollution Meteorology - ES 320, Clarion University

Field Methods in Environmental Geoscience - ES 455, Clarion University

Methods of Online Instruction - for Extended Studies Department, Clarion University

PROFESSIONAL COMMITTEES

Professional

Phi Kappa Phi – National Love of Learning Review Committee, 2016-present

Advisory Board Member, The Sustainability Institute of East Africa, 2012 - present

Association of American Geographers - Chair, Climate Specialty Group Honors Committee - Spring 2001 - 2005

Association of American Geographers 1999. Pittsburgh, PA Annual Meeting Organization Committee Association of American Geographers - Climate Specialty Group Honors Committee Member – 1998-2002,

Association of American Geographers - Climate Specialty Group Board of Directors Young Scholar Director 1995 - 1997

Pennsylvania Geographical Society - Chair, Outreach to Students Committee - 1995 - 2000

University

Co-Chair, College of Arts, Education and Sciences Dean Search Committee - 2018-2019

Member – Clarion Cybersecurity Committee – 2018-present

Phi Kappa Phi Vice President, 2018-present

Interim Chair - Department of Biology and Geoscience, 2017-present

Phi Kappa Phi Publicity Director, 2015-2018

Chair – Department of Anthropology, Geography and Earth Science, 2007-2014

Summer Chair - Department of Anthropology, Geography and Earth Science, 2003-2014

Temporary Faculty Assessment Committee for Department of Sports and Recreation - Spring 2003 - 2015

Advisory Board Committee for Department of Sports and Recreation - Fall 2002 - 2015

Distance Education Committee - Fall 2001-2015

Clarion University Faculty Mentor – 2000-2014

Tenure Committee, Chair - Fall 2002 - 2006

Associate Athletic Director Search Committee - Spring 2002

Elections and Nominations Committee, Chair - APSCUF, Clarion University - Fall 2000 - Spring 2001

Student Support Services Oversight Committee - Spring 2001

Statistical Referral Committee - Spring 1998

Athletics Subcommittee, Chair, Clarion University - Fall 1997 - 2003

Two Term Chair (Fall 2001-Spring 2002; Fall 2002-Spring 2003)

Elections and Nominations Committee - APSCUF, Clarion University - Fall 1996 - 2000

University Conduct Board - Fall 1997 - 1999

NASA JOVE Coordinator - Clarion University - Fall 1996-Fall 1999

President's Commission on the Status of Women, Clarion University - Fall 1995 - 2002

- Visiting Scholar Subcommittee Spring 1996
- Ad Hoc Committee on Sexual Assault Spring 1996 1998
- Chair Take Your Daughter to Work Subcommittee Spring 1998 Spring 1999
- Chair Webpage Subcommittee Fall 2000 2002

Institutional Resources Computer Operations Subcommittee - Clarion University

Fall 1995 - Spring 1998

APSCUF Scholarship Committee, Clarion University - Spring 1995

College of Arts and Sciences Computer Advisory Board - Clarion University, Fall 1994

Barry M. Goldwater Scholarship Nomination Committee - Mentor: Gary Alkire (Award Nominee - 1994), Clarion University - Fall 1994 - Spring 1998

Departmental Service(Clarion University)

Search Committee Chair, 2016

Chair – 2007-2014 (Summer Chair 2003-2014)

Anthropology Search Committee - Fall 2002 - present

Earth Science Sabbatical Replacement Search Committee Chair - Spring 2000

Member, Science Education Search Committee - Spring 2000

GIS Position Search Committee - Spring 1998

M.S. Environmental Geoscience Degree Program Committee - Spring 1997 - Spring 1999

GIS, Climatology/Meteorology Laboratory Management Committee - Fall 1994 - present

GIS Position Search Committee Chair - Spring 1996

Departmental Representative - Clarion University Foundation Fund, Fall 1994 - present

Computer Advisory Committee - Fall 1994 - present

Geography Curriculum Committee - Spring 1996 - present

GIS/Computer Laboratory Committee - Fall 1994 - present

Library Resources Committee - Fall 1994 - present

Space Allocation Committee - Spring 1995 - present

B.S. Environmental Geoscience Degree Program Committee Chair - 1994-95

TEACHING (Clarion University only)

ES 111 - Basic Earth Science

Text: Foundations of Earth Science, E.J. Tarbuck and F.K. Lutgens, Prentice Hall.

ES 140 – Natural Disasters

Text: Natural Disasters, Hyndman and Hyndman, 5th Ed., Cengage Learning.

ES 160 – Explorations in Earth Science

Text: Supplemental Readings

Honors 230 – Special Topics in Science/Math

Text relative to per semester course topic

ES 270 - Oceanography

Text: Essentials of Oceanography - Tom Garrison, Cengage Learning.

ES 280 - Meteorology

Text: Understanding Weather and Climate, E. Aguado and J.E. Burt, Prentice Hall.

Recommended: Study Guide, Understanding Weather and Climate, R.V. Rohli and T.W.

Schmidlin, Prentice Hall

ES 300 - Special Topics in Geoscience: Sustainability of New Zealand/Portugal/Iceland

Text: Supplemental Readings Only

ES 320 - Air Pollution Meteorology

Text: *Earth Under Siege, From Air Pollution to Global Change*, R.P. Turco, Oxford Press. Supplemental Readings from *The Heated Debate*, Balling, Pacific Research Institute.

ES 380 - Severe Weather

Text: Severe and Hazardous Weather, Rauber, Walsh and Charlevoix, Kendall Hunt Pub.

ES/GEOG 385 - Climatology

Text: Climatology, 4th ed, Rohli and Vega, Jones and Bartlett Press.

ES 455 - Field Methods in Environmental Geoscience

Text: Supplemental Readings Only

Methods of Online Instruction - offered to Clarion University faculty, through Clarion University's Office of Extended Studies

Faculty Mentor of Online Instruction - offered to Clarion University faculty (Fall 2004), through Clarion University's Office of Extended Studies

REFERENCES

Dr. Robert V. Rohli Professor Department of Oceanography and Coastal Studies Louisiana State University Baton Rouge, LA 70803 225.578.6346 rohli@lsu.edu

Dr. Mark S. Binkley Professor/Director of Continuing Education (retired) Mississippi State University 107 Courtland Dr. Starkville, MS 39759 662-312-2402 GulfShoresALBeachRentals@yahoo.com

Dr. Keith G. Henderson Professor Department of Geography & the Environment Villanova University Villanova, PA 19085 610-519-7907 keith.henderson@villanova.edu

Course Evaluations - available upon request

Dr. Valentine James Professor/Provost Biology & Geoscience Clarion University Clarion, PA 16214 814-393-1938 vjames@clarion.edu

Dr. Laurie Occhipinti Dean, Liberal Arts Mount Wachusett Community College Gardner, MA 01440 978-630-9350 locchipinti@mwcc.mass.edu

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