Dr. Paul J. Croft – Curriculum Vita

Kean University –
Department of Geology & Meteorology

Contents…

(Total pages including this contents sheet – 20)

Paul J. Croft, Ph.D., Assistant Professor of Meteorology

Current Affiliation:
Kean University

Department of Geology & Meteorology
1000 Morris Avenue – Union, NJ 07083

Phone: 1-908-737-3720; email: pcroft@kean.edu
email: croftemj@aol.com)

Specialties/Areas of Expertise…

- Operational Meteorology
- Mesoscale: Fog, Convective Systems, Winter Storms
- Applied Meteorology/Climatology
- Environmental Meteorology
- Education and Training, Policies

Education

- B.S. degree in Meteorology at Cook College, Rutgers University, 1985
- M.S. degree in Meteorology at Cook College, Rutgers University, 1987
- Ph.D. degree in Meteorology and Horticulture, Rutgers University, 1991

Academic and Other Experience

- Assistant Professor (9/04-present), Kean University (Tenured 2009)
- Associate Professor (8/02-5/04), University of Louisiana at Monroe
- Associate Professor (8/00-8/02), Jackson State University, Jackson, Mississippi (Tenured)
- Assistant Professor (8/95-8/00), Jackson State University, Jackson, Mississippi
- Assistant Professor (9/93-6/95), University of South Alabama, Mobile, Alabama
- Coadjutant Research and Coadjutant Instructor (7/92-6/93), Cook College, Rutgers University, New Brunswick, New Jersey; and Instructor (9/91-6/92)
- Coadjutant, Graduate Assistant, and Assistant New Jersey State Climatologist (4/88-8/91), Cook College, Rutgers University, New Brunswick, New Jersey
- Environmental Scientist (6/87-4/88), Air Quality Division, Louis Berger and Associates, Inc., East Orange, New Jersey

Courses Delivered

> Undergraduate Major Courses (for the period 1988 – 2008): Introductory Meteorology (and laboratory), Meteorological Analysis, Climatic Analysis, Applied Meteorology I and II, General Meteorology (has included lab), Seminar, Applied Meteorology, Atmospheric Thermodynamics, Atmospheric Dynamics, Physical Meteorology, Meteorological Instrumentation (and lab), Synoptic Meteorology I and II (and lab), Professional Meteorology, Weather Observations, Micrometeorology, Independent Study/Research Intern, Special Topics, Geosciences Seminar, Research and Technology, Senior Seminar, Honors Seminar. Online course development using WebCT, Blackboard, and online materials and resources as appropriate (e.g., COMET modules, NWS, NASA, others). President's Teaching Excellence Award 2008-2009.

> Graduate Level Courses (for the period 1990 – 2000): Applied Climatology; Independent Study; Environmental Meteorology; Air Quality Management.

> Undergraduate Non-Major Courses (for the period 1988 – 2008): Observing the Earth, Research and Technology, Weather and Life, Meteorology and Coastal Climatology (and lab); Introduction to Meteorology (and lab), Introduction to Climatology (and lab), Freshman Year Seminar. Online course development using WebCT, Blackboard, and online materials and resources as appropriate.

> Professional/Short Courses: Introduction to Air Pollution Modeling, April 27-28, 1993, March 17-18, 1994, July 20-21, 1995. Faculty coordinator and instructor of short course sponsored by the Cook College Office of Continuing and Professional Education of Rutgers University.

University Service and Activities

Kean University: Faculty Mentoring Program development; Writing Task Force (Co-Chair), Middle States Evaluation Steering Committee and Working Group co-chair (2008-2011), Weathercasting Panel (2007), Tech-Transfer Conference, Faculty Research Forum, Program Committee 14th Annual New Jersey Advisors Conference (2006), Tenure Track Faculty Network Steering Committee (and service as coordinator and co-chair), Academic Standards Committee (and Chair second year), Admissions Committee, Writing Emphasis Committee; Research Committee; Department of Geology and Meteorology Program Review Coordinator (2005-2006), and Epsilon Corps Graduate School and Professional Development Committees (2005-2006); Curriculum and Recruitment Committees. Attend and/or participate in Student Athlete Luncheon, Honors Convocation, Science Celebration Day, Early College Awareness Day, SpF and other Luncheons, and Commencement Exercises. Assist new faculty orientation, Upward Bound, Epsilon Corps, PBL Institute, Departmental GIS poster displays. Colleague System and KeanWise training workshops, Outlook, and others. Faculty Research Mentor of the Year 2009.

All Universities: Seminars on promotion and tenure, grant proposals, public affairs office support, items of interest and assistance to other colleagues as related to profession and interdisciplinary topics, departmental seminars participation, workshops (driver safety, safety training, sexual harassment, orientation, blood borne pathogens, violence in the workplace), and convocations and memorial services. Advisor to meteorology majors; Faculty Advisor to undergraduate meteorology clubs and the Kean University Student AMS/NWA Chapter, supervision of undergraduate meteorology majors, supervision of internship and/or directed study programs, Mentor Program mentor. Assist students in their attendance and participation at AMS, NWA, NCUR, and other professional meetings (on-going). Opening Day and Open House activities.

Various Universities: Suspension Appeals Committee, Calendar Committee, member Graduate Faculty (several), Input and/or comments to academic planning, recruitment and retention, graduate faculty renewal criteria, new geoscience degree program, program review (several), departmental budget, departmental core curriculum comments, and appointed to College of Arts and Sciences curriculum committee. Assist in course evaluation instrument development. Campus clean-up and Reclaiming Our Campus. Provided speaking topics list to public affairs and initiate fund-raising for Atmospheric Science Foundation funds via alumni/others. Participation in the "Impacting Education through Online Teaching and Learning" workshop for the development of an online course using Blackboard.

University Research Advisory, Sabbatical, and Curriculum Committees (several), Meteorology Program Coordinator, Environmental Science Ph.D. Committee; General Science, Physics, and Secretarial search committees, UCAR Academic Affiliate Program Representative (several), Departmental Representative for Curriculum Committee, Science Fair, Promotion, and Tenure committees; Publicity, and Newsletter Committees; Meteorology Club Advisor, Library Liaison. Physics faculty search, General Science faculty search, RCMS Mentor and Partitions, Curriculum and Faculty/Student Grievance Committees, Adjunct Faculty Member, level 2-A membership with Mississippi State University, Associate Member of U.S.A. graduate school, student recruitment for meteorology program, and Cook College Academic Forum.

Attendance and/or completion of Academy for Teaching Excellence, program on large class instruction, Exploring Student Learning Styles, AFROTC luncheon, CICSPLUS, EMAS. Attendance of thesis defenses, collegial support for development and course integration (within and outside of university setting with professionals), arrange guest seminars and speakers, and Honors Colloquium presentation.

Papers with Students, Staff, and Other Professionals
(◘ indicates papers co-authored with NWS and/or other external colleagues, * student or alumnus)

Croft, P. J., 2008. Summer Season Convective Initiation – Students as Independent Researchers. Preprint for AMS Annual Meeting, New Orleans, Louisiana, January 19 – 23, 2008.

Croft, P. J., 2008. Kean University's Weather Hazard Education & Research for Ecosystems of Urban Relevance in NJ (Kean University's Where-UR-in New Jersey!). Preprint for AMS Annual Meeting, New Orleans, Louisiana, January 19 – 23, 2008.

Croft, P. J., 2008. Technology & Research Integration – An Atmosphere of Learning for Students (TRIALS). Preprint for AMS Annual Meeting, New Orleans, Louisiana, January 19 – 23, 2008.

◘ Morreale, P., P. Croft, F. Qi, G. Chang, J. Czarnik, J. Espin, and R. Suelski, 2008. Street CORNERS: Contextual Representation of Wireless Sensor Network Data for Urban Environmental Sustainability. Submitted to IEEE Pervasive Computing.

Croft, P. J. Problem Based Learning: Meteorological Instrumentation. Preprint for AMS Annual Meeting, Atlanta, Georgia, January 28 – February 2, 2006.

Croft, P. J. Initiating Undergraduate Student Research Projects in Operational Meteorology: Kean University Operational Undergraduate Research in Meteorology & Professional Activities and Collaborative Training (KU-OUR-METPACT). Preprint for AMS Annual Meeting, Atlanta, Georgia, January 28 – February 2, 2006.

Croft, P. J. Problem Based Learning: Observing the Earth. Preprint for AMS Annual Meeting, Atlanta, Georgia, January 28 – February 2, 2006.

Croft, P. J. Undergraduates Providing Weather Activities for Research and Development of Skills at Kean University (UPWARDS at Kean!). Preprint for AMS Annual Meeting, Atlanta, Georgia, January 28 – February 2, 2006.

*Croft, P. J., and B. Melendez. An investigation of Air Quality Index characteristics and behaviors for southern New Jersey during Spring 2004 as a function of synoptic weather patterns. Preprint for AMS Annual Meeting, Atlanta, Georgia, January 28 – February 2, 2006.

*Croft, P. J., and M. Stroz. Preliminary synoptic climatology of cool season severe weather (2000-2005) for the Philadelphia national weather service county warning area and vicinity. Preprint for AMS Annual Meeting, Atlanta, Georgia, January 28 – February 2, 2006.

*Croft, P. J., and A. Burton. Fog during the 2004-2005 winter season in the northern mid-atlantic states: spatial characteristics and behaviors as a function of synoptic weather types. Preprint for AMS Annual Meeting, Atlanta, Georgia, January 28 – February 2, 2006.

◘ Croft, P. J., E. Pani, P. Watts, and B. Armfield. The I3 project: Science teachers as researchers. Preprint for AMS Annual Meeting, Seattle, Washington, 12-16 January 2004.

Croft, P. J., and L. LeBlanc. Weather investigators of Northeast-Louisiana (WIN-LA!). Preprint for AMS Annual Meeting, Seattle, Washington, 12-16 January 2004.

*Croft, P. J., M. A. McLaurin, and K. Roussy. Mentoring experiences for teaching students in weather investigators of Northeast-Louisiana. Preprint for AMS Annual Meeting, Seattle, Washington, 12-16 January 2004.

*Allen, S. E.', and P. J. Croft. Undergraduate workshop for integration of leadership and leveraging (U-WILL). Preprint for AMS Annual Meeting, Seattle, Washington, 12-16 January 2004.

*Croft, P. J., L. LeBlanc, R. Billips, and A. Haddox. Meteorology and the emerging scholars option – professional and research opportunities for undergraduate development. Preprint for AMS Annual Meeting, Seattle, Washington, 12-16 January 2004.

◘ Croft, P. J., and A. E. Gerard. Wet microburst – bibliography, annotation, data. Preprint for AMS Annual Meeting, Seattle, Washington, 12-16 January 2004.

*Croft, P. J., P. Pyle, and S. Blair. Wet microburst – student training and role in on-line bibliography and event selection. Preprint for AMS Annual Meeting, Seattle, Washington, 12-16 January 2004.

Croft, P. J., R. S. Reddy, L. White, and R. E. Mahecha, 2002. High Performance Visualization Center Initiative – Distance education initiative and efforts. Preprint for AMS Annual Meeting, Orlando, Florida, 13-19 January 2002.

Lu, D., P. J. Croft, and R. S. Reddy, 2002. Using immersive virtual reality to study hurricane cases. Preprint for AMS Annual Meeting, Orlando, Florida, 13-19 January 2002.

*Croft, P. J., M. Watts, A. R. Cook, R. Smart, and K. Coleman, 2002. Initiating a new partnership for the 21st century: NOAA/NWS and JSU promoting diversity in atmospheric sciences through research, applications, and in partnership with the NWS (PDAS-RAP). Preprint for AMS Annual Meeting, Orlando, Florida, 13-19 January 2002.

Croft, P. J., and R. Guyton, 2002. Analysis of Gulf Coast moisture, aerosols, and weather regimes. Preprint for AMS Annual Meeting, Orlando, Florida, 13-19 January 2002.

Croft, P. J., R. S. Reddy, and P. J. Fitzpatrick, 2000. Mesoscale modeling investigation of convective initiation on the Gulf Coast. Preprint for AMS Annual Meeting, Long Beach, California, 9-15 January 2000.

◘ Croft, P. J., and A. E. Gerard, 2000. The record meso-snowfall event of 1997 in Jackson, Mississippi. Preprint for AMS Annual Meeting, Long Beach, California, 9-15 January 2000.

◘ Potter, B. E., and P. J. Croft, 2000. Spatial variation in growing season heat sums within northern hardwood forest canopy gaps. Preprint for AMS Annual Meeting, Long Beach, California, 9-15 January 2000.

Technical Report JSU MP 2000-1 "Mesoscale Modeling of Convective Initiation in the Alabama Gulf Coastal Region", JSU Meteorology Program.

Croft, P. J., 2000. Satellite analysis of gulf coast atmospheric moisture and tropospheric aerosols. Preprint for AMS Annual Meeting, Long Beach, California, 9-15 January 2000.

*◘ Webb, M., P. J. Croft, and A. E. Gerard, 2000. AMBER: Student experiences and products for operational use. Preprint for AMS Annual Meeting, Long Beach, California, 9-15 January 2000.

*Watts, M., and P. J. Croft, 1999. Young (minority female) scholars in meteorology – A closer look. Preprint for the 8th Conference on Education, Dallas, Texas, 10-15 January 1999.

Croft, P. J., 1999. Meteorology CHARCs. Preprint for the 8th Conference on Education, Dallas, Texas, 10-15 January 1999.

Croft, P. J., 1999. Young scholars in meteorology: A closer look and assessment. Preprint for the 8th Conference on Education, Dallas, Texas, 10-15 January 1999.

◘ Tucker, D. F., F. H. Carr, P. J. Croft, and D. R. Smith, 1999. The Bachelor's Degree in atmospheric science – Revision of the 1995 AMS statement. Preprint for the 8th Conference on Education, Dallas, Texas, 10-15 January 1999.

*Bridges, R., and P. J. Croft, 1999. A GIS/RS preliminary investigation of a fog prone region. Preprint for the 11th Conference on Applied Climatology, Dallas, Texas, 10-15 January 1999.

*Croft, P. J., R. S. Reddy, P. J. Fitzpatrick, and A. M. Sealy, 1998. Mesoscale modeling for the Gulf Coastal states. Preprint for the 2nd Conference on Coastal Atmospheric and Oceanic Prediction and Processes, Phoenix, Arizona, 11-16 January 1998.

◘ Croft, P. J., and J. M. Medlin, 1998. Coastal convective initiation in summer as a function of seasonal progression and physiography. Preprint for the 2nd Conference on Coastal Atmospheric and Oceanic Prediction and Processes, Phoenix, Arizona, 11-16 January 1998.

Croft, P. J., 1998. Assessing the excitement of meteorology! for young scholars. Preprint for the 7th Symposium on Education, American Meteorological Society, Phoenix, Arizona, 11-16 January 1998.

Croft, P. J., 1998. Preparing minority atmospheric scientists at Jackson State University. Preprint for the 7th Symposium on Education, American Meteorological Society, Phoenix, Arizona, 11-16 January 1998.

Croft, P. J., 1998. The Jackson State University meteorology program: Providing minority atmospheric scientists. Preprint for the 7th Symposium on Education, American Meteorological Society, Phoenix, Arizona, 11-16 January 1998.

*Jemison, E., and P. J. Croft, 1998. The excitement of meteorology! A peer participant's perspective. Preprint for the 7th Symposium on Education, American Meteorological Society, Phoenix, Arizona, 11-16 January 1998.

*Watts, M., and P. J. Croft, 1998. Studying convective initiation: A student's perspective. Preprint for the 7th Symposium on Education, American Meteorological Society, Phoenix, Arizona, 11-16 January 1998.

Croft, P. J., and E. R. Stanford, 1997. Using MM5 to study lower stratosphere dynamics. Preprint for the 3rd Conference on Atmospheric Chemistry, American Meteorological Society, Long Beach, California, 2-7 February 1997.

Stanford, E. R., and P. J. Croft, 1997. The incorporation of UARS HRDII winds into the MM5 modeling system. Preprint for the 1st Symposium on integrated observing systems, American Meteorological Society, Long Beach, California, 2-7 February 1997.

*Dixon, S. N., T. P. Hall, and P. J. Croft, 1997. Use of the WWW to "launch" meteorology majors into the stratosphere. Preprint for the 6th Symposium on Education, American Meteorological Society, Long Beach, California, 2-7 February 1997.

Croft, P. J., 1997. Meteorology for young scholars. Preprint for the 6th Symposium on Education, American Meteorological Society, Long Beach, California, 2-7 February 1997.

*Hall, T. P., and P. J. Croft, 1997. Young scholars in meteorology: An undergraduate meteorology major's perspective. Preprint for the 6th Symposium on Education, American Meteorological Society, Long Beach, California, 2-7 February 1997.

Croft, P. J., 1997. Towards the improved prediction of regional fog events. Preprint for the 7th Conference on Aviation, Range, and Aerospace Meteorology, American Meteorological Society, Long Beach, California, 2-7 February 1997.

Croft, P. J., and E. R. Stanford, 1996. Using MM5 to study lower stratospheric dynamics. Preprint for the 11th Conference on Numerical Weather Prediction, American Meteorological Society, Norfolk, Virginia, 19-23 August 1996.

◘ Croft, P. J., and M. S. Mulekar, 1996. Development of a statistical model of cooling energy use as a function of weather. Preprint for the 15th Conference on Weather Analysis and Forecasting, Norfolk, Virginia, 19-23 August 1996.

Croft, P. J., 1996. Towards the improved prediction of regional fog events. Preprint for the 15th Conference on Weather Analysis and Forecasting, Norfolk, Virginia, 19-23 August 1996.

◘ Medlin, J., and P. J. Croft, 1996. An examination of the Mobile Bayway fog disaster. Preprint for the 15th Conference on Weather Analysis and Forecasting, Norfolk, Virginia, 19-23 August 1996.

Stanford, E. R., and P. J. Croft, 1996. Applications of MM5 to stratospheric modeling: Implications for forecasters. Preprint for the 15th Conference on Weather Analysis and Forecasting, Norfolk, Virginia, 19-23 August 1996.

Croft, P. J., 1996. Changing career preparation for meteorologists. Preprint for the 4th International Conference on School and Popular Meteorological and Oceanographic Education, Edinburgh, Scotland, 22-26 July 1996.

Croft, P. J., 1996. Young scholars in meteorology. Preprint for the 4th International Conference on School and Popular Meteorological and Oceanographic Education, Edinburgh, Scotland, 22-26 July 1996.

◘ Knox, J. A., and P. J. Croft, 1996. Storytelling in the atmospheric science classroom. Preprint for the 4th International Conference on School and Popular Meteorological and Oceanographic Education, Edinburgh, Scotland, 22-26 July 1996.

◘ Garmon, J., D. Darbe, and P. J. Croft, 1996. Forecasting significant fog on the Alabama coast: Impact, climatology, and forecast checklist development. NOAA Tech. Memo. NWS SR-176, 16 pp.

◘ Knox, John A., and P. J. Croft, 1996. Storytelling in the Atmospheric Science Classroom. Preprint for the Fifth Symposium on Education, American Meteorological Society, Atlanta, Georgia, 28 January-2 February 1996.

◘ Croft, P. J., and M. A. Tessmer, 1995. Weather and Life: A Cognitive Apprenticeship in Personalized Multidisciplinary Problem Solving. Preprint for the Fourth Symposium on Education, American Meteorological Society, Dallas, Texas, 15-20 January 1995.

◘ Croft, P. J., and M. S. Binkley, 1995. Meteorology's Educational Dilemma. Preprint for the Fourth Symposium on Education, American Meteorological Society, Dallas, Texas, 15-20 January 1995.

Croft, P. J., and A. Williams, Jr., 1995. The Excitement of Meteorology! An Interactive Study in the Geosciences. Preprint for the Fourth Symposium on Education, American Meteorological Society, Dallas, Texas, 15-20 January 1995.

◘ Croft, P. J., and N. J. Vorsa, 1994. Impact of rainfall/irrigation amount and frequency on cranberry stomatal conductivity. Cranberries, 58: 12, 17.

Croft, P. J., and J. D. Milutinovic, 1993. Forecasters versus MOS guidance for a non-MOS site. Preprint for the Thirteenth Conference on Weather Analysis and Forecasting, Vienna, Virginia, 1-6 August 1993.

◘ Croft, P. J., and D. A. Robinson, 1993. The impact of MMTS on the New Brunswick climate record. Preprint for the Eighth Conference on Applied Climatology, Anaheim, California, 17-22 January 1993.

Croft, P. J., 1993. Root causes of climate change. Cranberries, 57 (1): 8-9, 22, 24.

Croft, P. J., 1993. Climate change and the greenhouse effect. Cranberries, 56 (12), 17.

Croft, P. J., 1992. Meteorological investigation and prediction of scald. Cranberries, 56, 6-7, 18.

◘ Mogil, H. M., et al., 1991. Session Summary NWA Meeting (Session 7 by Croft). Nat. Wea. Dig., 16, 14-20.

Croft, P. J., 1991. Cranberry scald forecasting. Temps & Tides, Summer 1991.

Croft, P. J., 1990. Current status of the state climatologist. The State Climatologist, 14, 3-5.

Professional Activities

- Director Center for Earth System Education (CESE) – Since Fall 2006
- Editorial Board – Subject Matter Expert (education) for the Bulletin of the American Meteorological Society (peer reviewed journal) – beginning Summer 2008
- National Weather Association Strategic Planning Committee (continuing), Executive Director Search Committee, NWA Weather Summit Committee 2006
- National Weather Association Vice President 2001, President-Elect 2003, President 2004, Immediate Past President 2005, NWA Council Liaison to the Strategic Planning Committee
- National Weather Association Broadcast Committee and Testing Chair NWA radio/television seal 1994-2004; creation and implementation of revised tests
- National Weather Association Education Committee 1993-2003, 2005-present. Development of association education policies and support to K-12 educators; scholarship application review and scoring

- American Meteorological Society Board on Continuing Education 2000-2005; Chair 2003-2004. Work included ad hoc committee for short courses guidelines, seal and certification programs, and re-certification criteria. Summary analysis of short course evaluations provided. Education initiatives, guidelines and procedures revised.
- American Meteorological Society Board on Higher Education (formerly Meteorological and Oceanographic Education in Universities) 1996-2002. Work included Battan, Anderson, and Teaching Excellence Awards, planning for heads and chairs meeting, graduate education, recruitment, retention, and mentoring; establishment of a teaching excellence award, proposed educational journal for the AMS, and planning of an annual student conference.
- Session Chair or Co-Chair AMS Education Symposium 1997-2003 and Program Committee
- AMS Education Advisory Committee 2003-2005
- AMS Broadcast Committee requests assistance for Seal Program Testing revision 2003-04

- Session Chair or Co-Chair NWA Annual Meeting 1998-1999, 2001
- Co-Program Chair, NWA Annual Meeting 1999
- President Jackson AMS Chapter 1997-1999, Corresponding Secretary 1999-2000
- Consulting for the Mississippi Department of Environmental Quality 1997-1998, 2000-2002
- NOAA Diversity Conference Steering Committee 2000-2003

Other Professional Activities (Membership, Development, Reviews, Training or Workshops, Other)
American Association of State Climatologists, New Jersey Academy of Science, New Jersey Earth Science Teachers Association, American Meteorological Society, Jackson Chapter of the American Meteorological Society (Past President and Corresponding Secretary), Mississippi Academy of Science, National Weather Association, and Sigma Xi. Past Member of: Alabama and New York Academy of Sciences, American Society of Agronomy, Association of American Geographers (and Climate Specialty Group), Central Gulf Coast Chapter of the National Weather Association (Founder and President), Mobile Bay Chapter of the American Meteorological Society (Founder and President), New Jersey chapter American Meteorological Society (officer 3 times), New York Academy of Science.

Kean University:

- Manuscript reviewer for JGR-Atmospheres, Journal of Applied Meteorology and Climatology, Bulletin of the American Meteorological Society, National Weather Digest, Geophysical Research Letters, International Journal of Wildland Fire, Natural Hazards, Journal of Applied and Pure Geophysics; Geophysical Research Letters, National Geographic Society, Annales Geosphysicae, Weather and Forecasting, and Bulletin of the American Meteorological Society; reader of manuscripts for colleagues
- Proposal review National Geographic Society, NSF, NOAA
- Unidata Workshop 2009
- Pedagogy Conference Kean University (breakout session presenter/leader)
- Invited NOAA Panelist (Education Program) for proposal review (twice)
- COMET faculty course 2006 "Multimedia Teaching"
- WebCT Training Workshop Fall 2005

All Universities:

- Prospectus review, NSF proposal review
- Journal of Applied Meteorology and Climatology review
- COMET radiation and advection fog modules development assistance and review (access through http://meted.ucar.edu)
- Review of AMS Journal of Applied Meteorology Manuscripts (2)
- Hydrometeorology Workshop
- NSF and NOAA proposal reviews
- Climate Reference Network site visit to ULM by SRCC
- ULM Teaching and Learning Resource Center workshops and seminars (ATE, large class instruction, exploring student learning styles)
- Reviewer for COMET Cooperative Proposals and for NSF/EPSCOR pre-proposal
- Numerical Weather Prediction Workshop by COMET 1999
- PAGE community workshops sponsored by the NSF 1997 and 1998
- NSF/ATE Faculty Workshop on Atmospheric Instrumentation and Measurement 26 July-1 August 1998
- Satellite Meteorology Workshop 1-12 June 1998
- NASA Stennis Faculty training "Remote Sensing and GIS as Applied to Earth System Science", 1997
- UCAR short course "MM5 Tutorial" 15-18 July 1997
- AMS short course on "Time Series Analysis Methods and Applications in the Atmospheric Sciences" during AMS Annual Meeting, 1-2 February 1997
- AMS short course on "Climate Data and Information for Environmental Applications" during AMS Annual Meeting, 27-28 January 1996
- "NEXRAD Information Dissemination Service Training" during NWA Annual Meeting, 15-16 October 1994
- Comments to AASC for draft statement, AMS CCM program, American Scientist editor regarding storytelling references, letters to NWA newsletter regarding forecasting
- Northeast Regional Climate Center Meeting, 1991: Presented regional research report for New Jersey and participated in discussion and planning of research initiatives
- American Association of State Climatologists, 1990: Assisted President and President-Elect in organization and running of annual meeting. Presented portion of New Jersey State Climatologist's report

- Northeast Regional Climate Center Meeting, 1989: Assisted in preparation and presentation of regional research report and planning of research initiatives
- American Association of State Climatologists, 1989: Assisted in preparation of New Jersey State Climatologist's report
- USDA Regional Research Annual Meeting, 1989: Assisted in preparation and presentation of research report and planning of research initiatives
- Founder Mobile AMS and NWA local chapters and served as President

Community Service and Other Activities

Host visitors and guests to the Department and prospective students. Visits to various schools (e.g., Chatham High School, Randolph High School, Mount Hermon, Angie Junior, Jesus Good Shepherd Elementary, Morton High School Meteorology Club, Piney Woods, Clinton Park and Barr Elementary, and SW Academy). Science Fair Judge, Kids as Global Scientists. Mississippi Children's Museum math and science exhibit concepts. SME in Electronic Emissary Project and Kids as Global Scientists Program via Internet. Supervised students of Discovery Summer Apprenticeship Program.

Presentations include: Metropolitan Association for Teachers of Science and Mathematics, Educational Technology, and the Corpus Christi Men's Club. Presentations to public groups, cable television (e.g., News12-NJ), and radio since 1979 and interviews by newspapers and cable television concerning weather phenomena and issues including corrections/additions as needed. JSU TV-23 and local television affiliates information and interviews provided including guided tours of weather stations. Louisiana Folklife Festival weather support; New Brunswick Forecast Contest organizer and participant. JSU Childhood Center clean-up; Holy Savior softball team;. Knights of Columbus (Family Program Director, Deputy Grand Knight and Grand Knight); Salvation Army bell-ringer.

Consulting

Consortium for Policy Research in Education PCK Tools review; Cambridge Press prospectus review; Environmental Toxicology Associates, Preparation of Book Chapter. Reviews of meteorology texts for Wm. C. Brown Publishers and Prentice Hall; WCB/McGraw-Hill; air pollution modeling consultations for Louis Berger and Associates, Inc., and numerous phone calls (since 1979) from public, private, and legal sectors regarding past weather and climate conditions. Fog entry for atmospheric encyclopedia.

Journal and Professional Publications

(◘ indicates papers co-authored with NWS and/or other external colleagues, * student or alumnus)

Croft, P. J., 2008. Summer season convective initiation in and around New Jersey. In development.

◘ Morreale, P., F. Qi, P. Croft, G. Chang, J. Czarnik, N. Doell, J. Espin, and R. Suleski, 2009. "Real-time Contextual Representation of Sensor Network Data for Environmental Trend Identification", Proceedings of the 23rd IEEE International Conference on Advanced Information Networking and Applications (AINA '09; peer reviewed), Bradford, UK, pp. 407-412.

*Croft, P. J., and B. Melendez, 2008. Investigation of the air quality index as related to weather regime. In Press: National Weather Digest.

*Ward, B., and P. J. Croft, 2008. Use of GIS to Examine Winter Fog Occurrences. Electronic Journal of Operational Meteorology, 2008-EJ4, 32 pp.

*Croft, P. J., and A. Burton, 2008. Assessing winter season fog occurrence and coverage. To be submitted.

*Croft, P. J., and M. G. Stroz, 2007. Preliminary Synoptic Climatology of Cool Season Convective Severe Weather Events in and near the Philadelphia NOAA/National Weather Service Forecast Office County Warning Area. National Weather Digest, 31: 47-61.

◘ Lu, D., L. White, R. S. Reddy, and P. J. Croft, 2007. Multiseason Evaluation of the MM5, COAMPS and WRF over Southeast United States. In review Meteorol. Atmos. Phys.

◘ Lu, D., L. White, R. S. Reddy, P. J. Croft, and J. M. Medlin, 2006. Numerical simulation of sea and bay breezes in a weak shear environment. Meteorol. Atmos. Phys. 94: 153-165.

◘ Croft, P. J., and A. Gerard, 2001. Analysis of the Record Mesosnowfall Event of 1997 in Central Mississippi. Wea. and Forecasting, 16: 755-764.

Croft, P. J., 1999. Assessing the "Excitement of Meteorology!" for young scholars. Bull. Amer. Meteor. Soc., 80, 879-891.

◘ Tucker, D. F., F. H. Carr, P. J. Croft, and D. R. Smith, 1999. The Bachelor's Degree in Atmospheric Science-Revision of the 1995 AMS Statement.

◘ Medlin, J. M., and P. J. Croft, 1998. A preliminary investigation and diagnosis of weak shear summertime convective initiation for extreme southwest Alabama. Weather and Forecasting, 13, 717-728.

◘ Croft, P. J., Pfost, R., Medlin, J., Johnson, A., 1997. Fog forecasting in the southern region: A conceptual model approach. Weather and Forecasting, 12, 545-556.

◘ Croft, P. J., and Mark S. Binkley, 1997. Meteorology's educational dilemma. Bull. Amer. Meteor. Soc., 78, 1159-1164.

◘ Knox, J. A., and P. J. Croft, 1997. Storytelling in the meteorology classroom. Bull. Amer. Meteor. Soc., 78, 897-906.

◘ Croft, P. J., D. Darbe, and J. Garmon, 1995. Forecasting significant fog in southern Alabama. Natl. Wea. Dig. 19, 10-16.

Croft, P. J., 1995. Field conditions associated with cranberry scald. HortScience, 30 (3): 16.

Croft, P. J., M. D. Shulman, and R. Avissar, 1993. Cranberry stomatal conductivity. HortScience, 28 (11): 1114-1116.

Croft, P. J., and J. D. Milutinovic, 1991. The Rutgers University forecasting contest: Forecaster performance versus model guidance. Natl. Wea. Dig., 16, 2-12.

Croft, P. J., and M. D. Shulman, 1989. A five year radar climatology of convective precipitation for New Jersey. International Journal of Climatology, 9, 581-600.

Croft, P. J., and M. D. Shulman, 1989. A radar-based thunderstorm and intense thunderstorm day climatology for New Jersey. Natl. Wea. Dig., 14, 6-15.

Croft, P. J., and M. D. Shulman, 1986. A mesoclimatology of the median rain-snow line in New Jersey. Natl. Wea. Dig., 11, 28-34.

Croft, P. J., M. D. Shulman and A. V. Havens, 1986. An assessment of the 1984-85 drought in northern New Jersey. Natl. Wea. Dig., 11, 37-40.

<u>Professional and Secondary Publications</u>

Croft, P. J., 2007. The Atmosphere: Science and Math System Integrator across the Curriculum. School Connections, 18(1): 20-25.

Croft, P. J., P. Pyle and S. Blair, 2004. Technical Report: Preliminary Investigation of Observed Microburst Characteristics and Forecast Methods. University of Louisiana at Monroe, Department of Geosciences.

Encyclopedia of Atmospheric Sciences, Six-Volume Set Edited by James R. Holton, John Pyle, and Judith A. Curry December 2002, Elsevier / Academic Press, ISBN: 0-12-227090-8

Kidder, S., L. Pietrafesa, and P. J. Croft, 2002. "Why Liberal Arts Colleges Need Meteorology and Oceanography"; April 2002. Bull. Amer. Meteor. Soc., 509-510.

Croft, P. J., B. Potter, and M. Watts, 2002. "Creating a Haines Index Climatology for the United States, Alaska, Hawaii, and Puerto Rico" Bull. Amer. Meteor. Soc., May 2002, 668.

◘ S. Ziegeler, R. Moorhead, P.J. Croft, and D. Lu,, "MetVR: Using Virtual Reality for Meteorological Visualization," NAVO MSRC Navigator, Fall 2001, pp. 7-9.

Phoebus, P. A., D. R. Smith, P. J. Croft, H. A. Friedman, M. C. Hayes, K. A. Murphy, M. K. Ramamurthy, B. Watkins, and J. W. Zeitler, 2001. Meeting Summary Ninth AMS Symposium on Education. Bull. Amer. Meteor. Soc., 82, 295-303.

Draft Technical Report JSU MP 2000-1 "Mesoscale Modeling of Convective Initiation in the Alabama Gulf Coastal Region", JSU Meteorology Program.

◘ "Why the Liberal Arts College Should Offer Meteorology and Oceanography Courses" by Stan Kidder, Leonard Pietrafesa, and Paul J. Croft. The Chronicle of Higher Education, 5 October 2001, B18.

JSU Meteorology Program Preliminary Draft Report "A Summary Report: Progress and Future – Operational Meteorology Research for the Gulf Coastal States & Gulf of Mexico…& Diversity in the Atmospheric Sciences"

◘ Expanding Opportunities in Oceanic and Atmospheric Sciences – Proceedings of a Conference to Strengthen Linkages among HBMSCUs, NOAA, and Graduate Studies in Marine and Atmospheric Sciences. March 29-31, 1999, University of Maryland Eastern Shore, editor Ambrose Jerald, Jr.

◘ Smith, D. R., P. A. Phoebus, J. W. Zeitler, D. Chagnon, R. A. McPherson, K. A. Murphy, P. J. Croft, M. C. Hayes, and M. R. Marlino, 2000. Meeting Report on the Eighth AMS Symposium on Education. Bull. Amer. Meteor. Soc., 81, 305-311.

◘ AMS Board on Meteorological and Oceanographic Education in Universities, 1998. White Paper on the Enhancement, Expansion, and Prioritization of AMS Education-Related Activities. 11'th Meeting of the Heads and Chairs of the Atmospheric, Oceanic, Hydrologic, and Related Sciences, 8-9 October 1998, Boulder, Colorado, 10 pp.

◘ Phoebus, P. A., D. R. Smith, R. A. McPherson, M. J. Hayes, J. M. Moran, P. J. Croft, J. T. Snow, E. S. Takle, R. L. Fauquet, L. M. Bastiaans, and J. W. Zeitler, 1998. Seventh AMS Symposium on Education. Bull. Amer. Meteor. Soc., 79, 2733-2740.

Bastiaans, L. M., D. R. Smith, R. A. McPherson, P. A. Phoebus, J. M. Moran, P. J. Croft, M. J. Ceritelli, G. V. Rao, J. T. Schaefer, F. J. Gadmoski, K. A. Kloesel, R. G. Quayle, and J. W. Zeitler, 1998. The Sixth AMS Symposium on Education. Bull. Amer. Meteor. Soc., 79, 457-466.

Croft, P. J., 1997. Chapter 19: Political, Social and Legal Aspects of Climate in Applied Climatology: Principles and Practices. Routledge Ltd, New York, New York, 352 pp.

Herbert, D. E., P. Croft, D. Silver, and S. Williams, 1996. Chaos and the Changing Nature of Science and Medicine: An Introduction. AIP Conference Proceedings 376, Woodbury, New York, 201 pp.

Grant Support & Activity

NSF – LSAMPS 2009; "Garden State – LSAMPS"; P.I. Toney, Co-PI Croft.

COMET (NOAA/NWS) "Forecast Implementation & Testing: Summer Season Convective Initiation Techniques (FIT-SSCIT)"; (2007-2008) $9,995; P.I. Croft.

McNair Program 2008; Project Director Diaz; P.I. Toney; Co-PI Croft et al.

Kean University SpF Program 2008; "Research and Examination of Convection Operationally with Real-time Data by Students for Prediction in New Jersey (RECORDS for Prediction in NJ) – Part 3"; P.I. Croft.

Kean University UFRI Program 2008-09; "KU WE MAP IT: EMPOWERS ME!"; P.I. Croft.

Kean University FFRA Program 2008; "Kean University: Weather Hazard Education & Research for Ecosystems of Urban Relevance in NJ (Kean University: WHERE – UR – in New Jersey!) Working in a Community of Outreach Research Experiences (The Working CORE)"; P.I. Croft.

Kean University QFI Program 2008; "Weather and Environmental Hazards – The Challenges of Awareness, Research, & Education in New Jersey (KU: WE CARE about NJ!)"; P.I. Croft.

COMET (NOAA/NWS) "Distribution & Initiation of Summer Season Convection: Operational Verification, Examination, & Research in New Jersey (DISSCOVER-NJ)"; (2007-2008) $9,995; P.I. Croft.

Kean University SpF Program 2007; "Research and Examination of Convection Operationally with Real-time Data by Students for Prediction in New Jersey (RECORDS for Prediction in NJ) – Part 2"; P.I. Croft.

Kean University UFRI Program 2007-08; "Kean University: Weather and Ecosystems Monitoring, Assessment, and Prediction for Integration and Training (KU: WE MAP IT)"; P.I. Croft.

Kean University FFRA Program 2007-2008; "Kean University: Weather Hazard Education & Research for Ecosystems of Urban Relevance in NJ (Kean University: WHERE – UR – in New Jersey!)"; P.I. Croft.

Kean University QFI Program 2007; "Kean University's Broadcast Science & Weather Reporting Cooperative"; P.I. Croft. (not funded)

Kean University RTR Program 2007; "Urban Ecosystems: Atmospheric Modeling for Operational Research & Education of Students (Urban Ecosystems: AMORES!)" ; P.I. Croft. (not funded)

Kean University SpF Program 2006; "Research and Examination of Convection Operationally with Real-time Data by Students for Prediction in New Jersey (RECORDS for Prediction in NJ)"; P.I. Croft.

Epsilon Corps participation 2005-2006 and 2006-2007; P.I. Yu.

CAMS-FOS Curriculum Development participation 2005-2006; P.I. Murphy.

Upward Bound Program participation 2004-2005-2006 and 2006; P.I. Jackson.

NSF "Delta Agriculture Middle School Applied Life Science – DAMSALS2"; (2004-2006) $1,186,606; P.I. Watts.

U.S. Department of Education "Upward Bound"; (2003-2008) $3,448,890; P.I. Eaton. Submitted.

NSF "Delta Alliance to Partner Louisiana Universities and Schools"; (2003-2005) $12,493,404; P.I. Pani. Submitted.

LaSIP and LaGEARUP "Immersing Instruction in Inquiry"; (April 2003 - June 2004) $135,000; P.I. Watts.

LA GEARUP "Weather Investigators of Northeast Louisiana (WIN-LA!)"; (2003-2004) $34,823; P.I. Croft, LeBlanc.

COMET "Preliminary Investigation of Observed Microburst Characteristics and Forecast Methods"; (2003) $9,997; P.I. Croft.

NOAA/NESDIS "Environmental Risks Assessment Integrative Systems Approach (ERAISA) with GIS/RS"; (2001-2004) $2,375,000; P.I. Mohamed, Director Croft and Baham.

ARL "Soldier High Resolution Environmental weather Diagnosis"; (2001-2002) $75,001; P.I. Croft.

AHPCRC "Air Quality, Dispersion and Atmospheric Radiative Properties and Fine Scale Modeling and Product Generation: Dynamics and Phenomena"; (2002-2009) $167,303; P.I. Croft, Reddy.

HPVCI "The JSU Clearinghouse for Meteorological Operational Visualization for Environmental Information Transfer"; (1999-2002) $374,377; P.I. Croft, co-PI Fitzpatrick and Reddy.

NOAA "Initiating a New Partnership for the 21st Century: NOAA/NWS and JSU Promoting Diversity in the Atmospheric Science through Research, Application, and in Partnership with the NWS (PDAS-RAP)"; (2001, 2002) $99,979; P.I. Croft, co-PI Fitzpatrick and Reddy.

USDA Forest Service "Haines Index Climatology for the Eastern United States"; (2000-2002) $27,991; P.I. Croft.

NASA FAR Program "Satellite Analysis of Gulf Coast Atmospheric Moisture and Tropospheric Aerosols"; (1999-2002) $299,988; P.I. Croft.

MS DEQ "JSU/DEQ Contract for Professional and Technical Services"; (2000 and 2001) $32,000 each year; P.I. Croft.

COMET-UCAR; "The Surprise Record Meso-Snowfall Event of 1997 in Central Mississippi - How Surprising and How Common?"; (1999) $7,569; P.I. Croft, co-PI Alan Gerard.

US Department of Agriculture RCRA; "Spatial Variation in Canopy Gap Heat Sums"; (1999); $9,700; P.I. Potter, co-PI Croft.

Army High Performance Computing Research Center (AHPCRC) "Mesoscale Modeling Over Mississippi Gulf Coast"; (1995-2001); $155,000 (final year funding level); P.I. - R. S. Reddy, co-PI Croft and Fitzpatrick.

CSTEA Academic & Research Consortium (CHARC) through Howard University and NASA; (1997-1998); $180,000; P.I. - K. Ghosh, co-PI Croft/Drake/Fadavi/Fitzpatrick/Hagelberg/Karim/Reddy.

NASA Partnership "Research and Educational Programs"; (1997-1999); $360,000; P.I. - P. Tchounwou, co-PI Croft and others.

COMET-UCAR; "A Preliminary Investigation of the Initiation of Deep Summertime Convection in Weakly Sheared Environments using the Mobile, AL WSR-88D"; (1996-97) $27,514; P.I. Croft.

The National Science Foundation, "Young Scholar Program: The Excitement of Meteorology!"; (1995-1997); $57,880 ; P.I. Croft; extended through 31 December 1998.

Advanced Research Performance Agency (ARPA) "Stratospheric Dynamic Modeling"; (1995-96) $175,226; P.I. - Paul J. Croft (formerly Johnson, retired) extended through 1 September 1998.

The Collaborative Research and Manpower Development Program (JSU/AGMUS) and U.S. Department of Energy, "Development of a Statistical Model of Cooling Energy Use as a Function of Weather"; (1995-1997): $4,650; P.I. Croft.

Jackson State University Retention Committee for physics introductory course and lab (1996-97); $4,500; P.I. Ghosh, co-PI Croft and Karim.

Cornell University, Northeast Regional Climate Center: Agricultural Forecast Algorithms for New Jersey Cranberry Bogs (1991-92); $12,500; P.I. Shulman.

Ocean Spray: Cranberry weather-related stress research (1991-92); $9,200; P.I. Shulman.

Ocean Spray: Cranberry weather-related stress research (1990-91); $5,000; P.I. Shulman.

New Jersey Cranberry Growers Association and Ocean Spray: Cranberry weather-related stress research (1989-90); $5,000; P.I. Shulman.

Seminars and Presentations (» indicates invited)

Kean University:

Conceptualization of Convective Initiation in New Jersey for Operational Prediction; Keancast & Media Meteorology at Kean University; Working in a Community of Outreach Research Experiences (The Working CORE); Student Teaching/Training in Astronomy, Geology, and Earth System Science (STAGES); Kean University EMPOWERS ME!; at the Annual Meeting of the National Weather Association, Louisville, Kentucky, October 2008.

» Presentation to Kean University Pedagogy Conference – PBL methods, April 2008.

» Presentation to National Weather Service workshop – Convective Initiation Research, April 2008.

Summer Season Convective Initiation in New Jersey – Initial Analysis; Winter Season Fog: A GIS approach to interpretation; Impact of ENSO Phase on Storm Frequency, Severity, and Path for New Jersey; The Keancast Kean University Media Initiative; Kean University's Weather Hazard Education & Research for Ecosystems of Urban Relevance in NJ (Kean University's WHERE – UR – in New Jersey!); Education in Meteorology: Professional Operational Work to Experience Reality through Instruments & Technology (EM-POWER-IT!); Technology & Research Integration – An Atmosphere of Learning for Students (TRIALS); at the Northeastern Storms Conference, Springfield, Massachusetts, 10-12 March 2008.

Kean University's Weather Hazard Education & Research for Ecosystems of Urban Relevance in NJ (Kean University's WHERE – UR – in New Jersey!); Technology & Research Integration – An Atmosphere of Learning for Students (TRIALS); Summer Season Convective Initiation – Students as Independent Researchers; at the Annual Meeting of the American Meteorological Society, New Orleans, Louisiana, 10-16 January 2008.

» Presentation to new faculty cohort group – problem based learning in the classroom, 2007

Summer Season Convective Initiation in New Jersey – Initial Analysis; Winter Season Fog: A GIS approach to interpretation; Impact of ENSO Phase on Storm Frequency, Severity, and Path for New Jersey;

Kean University's Weather Hazard Education & Research for Ecosystems of Urban Relevance in NJ (Kean University's WHERE – UR – in New Jersey!); Technology & Research Integration – An Atmosphere of Learning for Students (TRIALS); and Education in Meteorology: Professional Operational Work to Experience Reality through Instruments & Technology (EM-POWER-IT!); at the Annual Meeting of the National Weather Association, Reno, Nevada, 13 – 20 October 2007.

» Kean University CPD breakout groups for new faculty orientation: August 2007.

Early College Awareness Day – May 2007

New Jersey Academy of Sciences 2007 "Mesoscale investigations, modeling, & operational weather: the kean university student & faculty educational research collective"; "Convective initiation in New Jersey: an SpF program investigation at Kean University"; and "Kean University's weather hazard education & research for ecosystems of urban relevance in NJ (Kean University's WHERE – UR – in New Jersey!)"

» Presentation to Dina Rosen education group – using technology in the classroom

Northeastern Storms Conference 2007 "Mesoscale Investigations and Modeling in the Northern Mid-Atlantic"; March 2007

AMS 2007 papers "Convective Initiation in New Jersey (through student professional development)" and "Students Partnering with Faculty in the Kean University Meteorology Research Program" (delivered by student Ryan Kelly)

» Kean University CPD PBL seminar/workshop; October 31, 2006.

"KU-OUR-METPACT - Year II: GROWTH (Growth through Research in Operational Weather - Training Holistically)"; "UPWARDS at Kean! – Year II: AGENTS (Atmospheric and Geoscience Education Nexus – Trailblazing Students) of Change"; "Convective Initiation in New Jersey"; "October Tropical Cyclone Activity Relative to New Jersey"; "Mesoscale Features in New Jersey: Initial Investigations"; "Air Quality Index and Synoptic Weather Type in the Northern Mid-Atlantic"; "Cold Season Fog in the Northern Mid-Atlantic States: Spatial Characteristics and Behaviors by Synoptic Weather Regimes"; at the Annual Meeting of the National Weather Association, Cleveland, Ohio, 14 – 19 October 2006.

» Career day at school (Amy Horn), Randolph High School (summer research program 2006, Chris Duvall)

"An investigation of Air Quality Index characteristics and behaviors for southern New Jersey during Spring 2004 as a function of synoptic weather patterns"; "Preliminary synoptic climatology of cool season severe weather (2000-2005) for the Philadelphia national weather service county warning area and vicinity"; "Fog during the 2004-2005 winter season in the northern Mid-Atlantic states: spatial characteristics and behaviors as a function of synoptic weather types" at the 31st Northeastern Storms Conference, Saratoga Springs, New York, 10 – 12 March 2006.

"Problem Based Learning: Meteorological Instrumentation"; "Initiating Undergraduate Student Research Projects in Operational Meteorology: Kean University Operational Undergraduate Research in Meteorology & Professional Activities and Collaborative Training (KU-OUR-METPACT)"; "Problem Based Learning: Observing the Earth"; "Undergraduates Providing Weather Activities for Research and Development of Skills at Kean University (UPWARDS at Kean!)"; "An investigation of Air Quality Index characteristics and behaviors for southern New Jersey during Spring 2004 as a function of synoptic weather patterns"; "Preliminary synoptic climatology of cool season severe weather (2000-2005) for the Philadelphia national weather service county warning area and vicinity"; "Fog during the 2004-2005 winter season in the northern Mid-Atlantic states: spatial characteristics and behaviors as a function of synoptic weather types" at the AMS Annual Meeting, Atlanta, Georgia, 28 January – 2 February 2006.

"Problem Based Learning: Meteorological Instrumentation"; "Initiating Undergraduate Student Research Projects in Operational Meteorology: Kean University Operational Undergraduate Research in Meteorology & Professional Activities and Collaborative Training (KU-OUR-METPACT)"; "Problem Based Learning: Observing the Earth"; "Undergraduates Providing Weather Activities for Research and Development of Skills at Kean University (UPWARDS at Kean!)"; "An investigation of Air Quality Index characteristics and behaviors for southern New Jersey during Spring 2004 as a function of synoptic weather patterns"; "Preliminary synoptic climatology of cool season severe weather (2000-2005) for the Philadelphia national weather service county warning area and vicinity"; "Fog during the 2004-2005 winter season in the northern Mid-Atlantic states: spatial characteristics and behaviors as a function of synoptic weather types" at the Annual Meeting of the National Weather Association, St. Louis, Missouri, 15-19 October 2005.

NJESTA at Kean University, 19 March 2005 "Phenology: Nature's Measure of Climate & Climate Change".

"How to do everything at once and still get something done" TTFN presentation, September 26, 2005.

Upward Bound Program at Kean University, 23 October 2004 "What's with the weather?"; 13 November "Analyzing the weather for research – an introduction".

"Students in an Operational Context to see Climate, Environment, and Reality" and "Students' Futures SECURED" at the Annual Meeting National Weather Association, Portland, Oregon, 16-21 October 2004.

Other Universities:

"Weather investigators of Northeast-Louisiana (WIN-LA!)"; "Mentoring experiences for teaching students in weather investigators of Northeast-Louisiana"; "Undergraduate workshop for integration of leadership and leveraging (U-WILL)"; "Meteorology and the emerging scholars option – professional and research opportunities for undergraduate development"; "Wet microburst – bibliography, annotation, data"; "Wet microburst – student training and role in on-line bibliography and event selection" at the Annual Meeting National Weather Association, Jacksonville, Florida, 18-23 October 2003.

ULM Honors Colloquium "Storytelling in the Classroom: Why Weather Works", April 2003.

"Integrative Environmental Meteorology" to Department of Geosciences Seminar, Fall 2002.

"High Performance Visualization Center Initiative – Distance education initiative and efforts"; "Using immersive virtual reality to study hurricane cases"; "Initiating a new partnership for the 21st century: NOAA/NWS and JSU promoting diversity in atmospheric sciences through research, applications, and in partnership with the NWS (PDAS-RAP)"; and "Analysis of Gulf Coast moisture, aerosols, and weather regimes" at the AMS Annual Meeting, Orlando, Florida, 13-19 January 2002.

"High Performance Visualization Center Initiative – Web page delivery of operational modeling"; "Using immersive virtual reality to study two hurricane cases"; "Analysis of Haines Index climatology for the Eastern United States, Alaska, Hawaii, and Puerto Rico"; "Initiating a new partnership for the 21st century: NOAA/NWS and JSU promoting diversity in atmospheric sciences through research, applications, and in partnership with the NWS (PDAS-RAP)"; and "High Performance Visualization Center Initiative – Distance education initiative and efforts" at the Annual Meeting National Weather Association, Spokane, Washington, 13-19 October 2002.

"Mesoscale modeling investigation of convective initiation on the Gulf Coast"; "The record meso-snowfall event of 1997 in Jackson, Mississippi"; "Spatial variation in growing season heat sums within northern hardwood forest canopy gaps"; "AMBER: Student experiences and products for operational use" at the American Meteorological Society Annual Meeting, Long Beach, California, 9-15 January 2000.

"Mesoscale modeling investigation of convective initiation on the Gulf Coast"; "The record meso-snowfall event of 1997 in Jackson, Mississippi"; "Satellite analysis of gulf coast atmospheric moisture and tropospheric aerosols"; "Preliminary synoptic climatology of daily record temperature and precipitation events for Jackson, Mississippi"; "AMBER: Student experiences and products for operational use"; "Preliminary evaluation of snowfall events in Mississippi"; at the Annual Meeting National Weather Association, Biloxi, Mississippi, 15-22 October 1999.

HPVCI presentation on progress and plan of work to Naval Research Lab, Naval Post Graduate School in San Diego, Monterey, and White Sands Army Research Lab during 2000.

MMS (New Orleans) presentation for chair, Kunal Ghosh on MSP and on JSU Meteorology Program.

» Panelist for the NOAA "Conference to Strengthen Linkages Between HBMSCU Undergraduates and Graduate Studies in Marine and Atmospheric Sciences", 29-31 March 1999.

» WCB/McGraw-Hill panelist for "Introduction to Meteorology Focus Group", 10 January 1999.

"Meteorology CHARCs"; "Young Scholars in Meteorology: A Closer Look and Assessment"; "A GIS/RS Preliminary Investigation of a Fog Prone Region"; 8th Symposium on Education, American Meteorological Society, Dallas, Texas, 10-15 January 1999.

"A GIS/RS Preliminary Investigation of a Fog Prone Region"; "Young Scholars in Meteorology: A Closer Look and Assessment"; and "Young (Minority Female) Scholars in Meteorology: A Closer Look". 23rd Annual Meeting National Weather Association, Reno, Nevada, 17-23 October 1998.

"Mesoscale modeling for the Gulf Coastal states" and "Coastal convective initiation in summer as a function of seasonal progression and physiography" 2nd Conference on Coastal Atmospheric and Oceanic Prediction and Processes, Phoenix, Arizona, 11-16 January 1998.

"Assessing the excitement of meteorology! for young scholars"; "Preparing minority atmospheric scientists at Jackson State University"; "The Jackson State University meteorology program: Providing minority atmospheric scientists"; "The excitement of meteorology! A peer participant's perspective"; and "Studying convective initiation: A student's perspective" 7th Symposium on Education, American Meteorological Society, Phoenix, Arizona, 11-16 January 1998.

"Research Opportunities in the Atmospheric Sciences" for the Young Scientist Program in the School of Science and Technology, Jackson State University, 10 November 1997.

» Presentation "Predicting the fog process in the Wintertime on the Gulf Coast" at the Gulf Coast Winter Weather Workshop, 12-13 November 1997.

"Coastal convective initiation in summer as a function of seasonal progression and physiography"; "Assessing the excitement of meteorology! for young scholars"; "Mesoscale modeling for the Gulf Coastal states"; "The excitement of meteorology! A peer participant's perspective"; and "Studying convective initiation: A student's perspective" 22nd Annual Meeting National Weather Association, Reno, Nevada, 18-24 October 1997.

» Workshop with Mobile NWS SOO Jeffrey M. Medlin "Summertime Convective Initiation and Warning Decision Workshop" 14 April 1997.

"Using MM5 to study lower stratosphere dynamics" 3rd Conference on Atmospheric Chemistry, American Meteorological Society, Long Beach, California, 2-7 February 1997.

"The incorporation of UARS HRDII winds into the MM5 modeling system" 1st Symposium on integrated observing systems, American Meteorological Society, Long Beach, California, 2-7 February 1997.

"Use of the WWW to "launch" meteorology majors into the stratosphere"; "Meteorology for young scholars"; and "Young scholars in meteorology: An undergraduate meteorology major's perspective" 6th Symposium on Education, American Meteorological Society, Long Beach, California, 2-7 February 1997.

"Towards the improved prediction of regional fog events" 7th Conference on Aviation, Range, and Aerospace Meteorology, American Meteorological Society, Long Beach, California, 2-7 February 1997.

» Presentation "Improved Prediction of Regional Fog through the Conceptual Model Approach" at 3d Annual Conference at the Summit, Sugarbush, Vermont, 28 February - 2 March 1997.

"Diagnosis of summer convective initiation under weak shear"; "Meteorology for young scholars"; "A conceptual model approach to fog forecasting"; "Using the MM5 to study lower stratospheric dynamics"; "Application of MM5 to stratospheric modeling: Implications for forecasters"; "Young scholars in meteorology: An undergraduate meteorology major's perspective"; "Development of a statistical model of cooling energy use as a function of weather"; and "Use of the WWW to launch meteorology majors into the stratosphere" 21st Annual Meeting National Weather Association, Cocoa Beach, Florida, 1-6 December 1996.

"Using MM5 to study lower stratospheric dynamics" 11th Conference on Numerical Weather Prediction, American Meteorological Society, Norfolk, Virginia, 19-23 August 1996.

"Towards the improved prediction of regional fog events"; " An examination of the Mobile Bayway fog disaster"; "Development of a statistical model of cooling energy use as a function of weather"; and "Applications of MM5 to stratospheric modeling: Implications for forecasters" - 15th Conference on Weather Analysis and Forecasting, Norfolk, Virginia, 19-23 August 1996.

"Changing career preparation for meteorologists"; "Young scholars in meteorology"; and "Storytelling in the atmospheric science classroom" 4th International Conference on School and Popular Meteorological and Oceanographic Education, Edinburgh, Scotland, 22-26 July 1996.

» Seminar on "Conditional Symmetric Instability" - Jackson National Weather Service Office, 12 February 1996.

"An Examination of the Mobile Bayway Fog Disaster"; "What of the Future of Agricultural Meteorology?"; "Can Meteorological Education Meet the Challenges of Private Meteorology?"; "Storytelling in the Atmospheric Science Classroom" (Knox and Croft); and "Young Scholars in Meteorology" - Annual Meeting of the American Meteorological Society, 28 January - 2 February 1996.

"An Examination of the Mobile Bayway Fog Disaster"; "A Study of the Intrinsic and Extrinsic Characteristics of the Rain/Snow Line"; "A Preliminary Investigation of the Initiation of Deep Summertime Convection in Weakly Sheared Environments Using the Mobile, Alabama WSR-88D"; and "Towards the Improved Prediction of Regional Fog Events" - National Weather Association 20th Annual Meeting, 3-8 December 1995.

» Seminar on "Fog Forecasting" - Mobile National Weather Service Office, 18 April 1995.

"Weather and Life: An Integrated Approach for Science Education" - Seventy-Second Annual Meeting of the Alabama Academy of Science, Inc., 15-18 March 1995.

"The Excitement of Meteorology! An Interactive Study in the Geosciences."; "Weather and Life: A Cognitive Apprenticeship in Personalized Multidisciplinary Problem Solving."; and "Meteorology's Educational Dilemma" - Fourth Symposium on Education - 75th Annual Meeting of the American Meteorological Society, 15-20 January 1995.

“Forecasting Significant Fog in Southern Alabama.”; “Weather and Life: Multidisciplinary Education.”; and “The Crisis in Meteorological Education” - National Weather Association 19th Annual Meeting, 17-21 October 1994.

» Seminar on “Forecasting Significant Fog for Southern Alabama” - Central Gulf Coast Chapter of the NWA, 27 September 1994.

“Weather and Life: A Cognitive Apprenticeship in Personalized Multidisciplinary Problem Solving.”; and “The Excitement of Meteorology! An Interactive Study in the Geosciences” - AGU Chapman Conference on Scrutiny of Undergraduate Geoscience Education: Is the Viability of Geoscience Education in Jeopardy as We Approach the 21st Century?, 7-11 September 1994.

“Cranberry stomatal conductivity as related to rainfall amount and frequency.”; and “On the Cause of Cranberry scald” - 21’st Conference on Agricultural and Forest Meteorology, 1994.

“Forecasters versus MOS guidance for a non-MOS site” - 13’th Conference on Weather Analysis and Forecasting, 1993.

“The Impact of MMTS on the New Brunswick Climate Record” - 8th Conference on Applied Climatology - Annual Meeting of the American Meteorological Society, 1993.

» Seminar on “Use of MOS” - New York City National Weather Service Forecast Office, 23 November 1992.

“An Update on Forecaster Performance versus Model Guidance.”; and "Temperature and precipitation prediction for cranberry bogs" - National Weather Association Annual Meeting, 1991.

"Investigation and modeling of cranberry weather stress" - North American Cranberry Research and Extension Workers Conference, 1991.

"An update on forecaster performance versus model output" - National Weather Association Annual Meeting, 1990.

"An evaluation of forecaster skill versus model output" - National Weather Association Annual Meeting, 1989.

"A convective precipitation radar climatology for New Jersey" - National Weather Association Annual Meeting, 1988.

"A mesoclimatology of the median rain-snow line in New Jersey" - 12th Annual Northeastern Storm Conference, 1987.