**Dr. Don T. Conlee**

**Instructional Professor\***

Ph.D. Meteorology, Texas A&M University, 1994

M.S. Meteorology and Physical Oceanography, Naval Postgraduate School, With Distinction, 1991

B.S. Atmospheric Sciences, University of Louisiana, Monroe, Summa Cum Laude, 1983

**Current Teaching and Research Interests**

Real-World Meteorology including forecasting and provision of weather services and products.  Meteorological and Oceanographic in-situ instrumentation. Forecasting (human and numerical) impact of on-demand rawindsonde observations in data-sparse regions. Providing on-demand local and mobile rawindsonde observations for operational needs and field research campaigns (most recently MESO1819 of VortexSE).

Design and mentoring of undergraduate high-impact learning experiences, including study abroad, Research Experience for Undergraduates, and mesoscale/microscale observation directed studies and research.

Direct and maintain the Texas A&M Weather Center, the Texas A&M Research Farm Mesonet, and the Cloud and Visibility Observatory as high-impact learning facilities. Assist in the operation and maintenance of the Aggie Doppler Radar (ADRAD).

**Experience**

* 2014- - Instructional (Full) Professor, Department of Atmospheric Sciences
* 2009-2014 - Instructional Associate Professor, Department of Atmospheric Sciences
* 2007-2008 - Gulf Region Manager, NortekUSA, Stennis Space Center, Mississippi
* 2003-2007 - Chief Scientist, National Data Buoy Center, Stennis Space Center, Mississippi
* 2001-2003 - Commanding Officer, Naval Technical Training Unit, Keesler AFB, Mississippi
* 1999-2001 - Director of Remote Sensing Programs and Fleet Systems, Naval Meteorology and Oceanography Command, Stennis Space Center, Mississippi
* 1997-1999 - Meteorology, Oceanography, and Strike Warfare Officer, U.S. Navy, Enterprise Battle Group Staff
* 1994-1997 - Satellite and Environmental Data Department Head, Fleet Numerical Meteorology and Oceanography Center, Monterey, California
* 1987-1989 - Meteorologist, USS Iwo Jima (LPH-2)
* 1983-1986 - NWP Quality Control/Project Development Officer, Fleet Numerical Oceanography Center, Monterey, California
* 1979-1982 - Observer/Meteorological Technician, National Weather Service, Agricultural Weather Service Center, Stoneville, Mississippi

**High Impact Undergraduate Programs**

* **SEA-Met Study Abroad:** Student Experiences Abroad in Meteorology is a Maymester program designed to provide a significant scientific and cultural experience without affecting time-to-graduate or summer study, internships, or employment. The focus is primarily on coastal locations with significantly different meteorological mechanisms from North American and/or the mid-latitudes. The first SEA-Met class traveled to China to study air quality and meteorology of Asia in May 2015, and subsequent experiences have included Caribbean/Tropical Meteorology on the island of Barbados, Himalayan plateau and monsoon Meteorology in Chengdu, China, air quality in Germany, and mountain meteorology in Austria.
* **SOUP:** The Student Operational Upper-Air Program (SOUP) is a volunteer activity open to all Meteorology majors/minors where students launch balloons carrying radiosondes in support of requests by the National Weather Service to aid in critical forecast situations. These include potential severe weather and freezing/frozen precipitation events. Students are enrolled in an ATMO 491 for 0 or more credits to participate. (0 credits do not add to load or tuition, but document the activity for transcript purposes).
* **Green Roof:** Every semester a group of students enrolled in a special section of ATMO 485, Directed Studies, builds, maintains, instruments, and studies green roof and living wall installations. This activity is physically located on the roof of the Langford Architecture building “A”, but involves students and professors from three Colleges: Geosciences, Architecture, and Agriculture. Our students typically concentrate on the advanced sensors placed in and around the plots, but certainly occasionally get their hands dirty with planting, weeding, and harvesting!
* **Observations Directed Studies:** The Texas A&M Mesonet high-precision meteorological observation site is maintained by a small number of student enrollees in a special section of ATMO 485, Directed Studies. Students learn about data communications, instrument data collection programming, and, of course, the instruments themselves.
* **Summer SOAP:** The primary activity of Summer SOAP (Student Operational ADRAD Project) is small groups where undergraduate students learn radar fundamentals, man and operate the Texas A&M Aggie Doppler Radar (ADRAD), launch upper-air balloon and tethered soundings, and operate and maintain the Cloud Observatory/Ceilometer. Students also are engaged in special research projects, typically involving applied meteorology or observation technologies. This activity is designed to fit around a normal Summer schedule of classes or local employment. Many students from Summer SOAP continue research and present results at the winter American Meteorological Society meeting or at University/College research week events.
* **NSF REU Site:** Atmospheric Sciences in the Gulf Coast Region. Director and Co-PI of our Research Experience for Undergraduates (REU) site which brings in students from around the country each summer for study within our departmental research groups. The student cohort also engages in career enrichment and group field study.

**Courses Taught (\* Current)**

ATMO 201\* Weather and Climate (non-majors)

 ATMO 201\* Weather and Climate (majors)

 ATMO 203\* Freshman Forecasting Lab

 ATMO 251\* Observations and Analysis (Sophomores)

 ATMO 456\* Practical Forecasting

 ATMO 370\* Student Experiences Abroad in Meteorology

 ATMO 459 Tropical Meteorology

 ATMO 352 Severe Weather and Mesoscale Meteorology

**Awards and Recognition**

Association of Former Students Distinguished Achievement Award in Teaching, University Level, 2018

Dean's Distinguished Achievement Award for Excellence in Teaching, 2015

Robert C. Runnels Excellence in Advising Award, Spring 2013

AFS Distinguished Teaching Award, College Level, Fall 2012

Atmospheric Sciences Departmental Teaching Award, Fall 2012

Fish Camp Namesake, Camp Conlee, Spring/Summer 2012

Finalist: Texas A&M Mentors ATMentor of the Year, Spring 2012

Texas A&M System Teaching Excellence Award, Fall 2009

Hall-of-Fame Inductee, Fleet Numerical Meteorology and Oceanography Center, 2007

Defense Meritorious Service Medal, Meritorious Service Medal (3 Awards), numerous other individual and unit medals and ribbons during U.S. Navy Career of 1983-2003.

**Selected Presentations and Extended Abstracts**

* Using a Field Experience as a Component of a Traditional REU Program, Don T. Conlee, C. Schumacher and C. J. Nowotarski, 26th Symposium on Education, American Meteorological Society, 2017
* Conversations with Professionals (Invited Speaker), 16th Annual Student Conference, American Meteorological Society, 2017.
* On-Demand Radisosonde Observations to Aid Severe and Hazardous Weather Forecasting in the Southeast Texas Upper-Air Sparse Region, 18th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS), 2014, Don Conlee, L. Wood and R. C. Sodowsky.
* Plant Survival for Living Walls in a Subtropical Climate, Cities Alive 12th Annual Green Roof and Wall Conference, Nashville, Nov. 2014, Bruce Dvorak, Kirk Laminack\*, Astrid Volder, Don Conlee
* Teaching Meteorological and Observing Fundamentals Through High-Impact Learning. 22nd Symposium on Education, 2013, Don T. Conlee, S. L. Nasiri and A. D. Rapp
* Understanding the Origins of Data: Teaching Observing Fundamentals, Don T. Conlee, 2012 Unidata User's Workshop, Boulder, CO
* A Low-cost Electronic Chart Wall for Undergraduate Program Enhancement.  Joint Session: 19th Symposium on Education and 26th Conference on Interactive Information and Processing Systems (IIPS) for Meteorology, Oceanography, and Hydrology, American Meteorological Society, 2010, Don Conlee, and M. Perrotte and C. Mouchyn.
* Rapid Deployment Upper Air Observations for Incident Meteorological Support. IMPACTS Weather 2010, American Meteorological Society, 2011,
* Performance of a Subsurface Buoy for Directional Wave Measurements. ONR/MTS Buoy Workshop. March 2008.National Data Buoy Center Observations Supporting PIRATA (NOSP). *NOAA Office of Climate Observation Annual Review*, 2006.
* The HF Radar National Server and Architecture Project. 11th Symposium on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS). American Meteorological Society 2007.
* IOOS Backbone Expansion Efforts by NOAA's National Data Buoy Center. 10th Symposium on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS). American Meteorological Society 2006.
* The NWS Marine Observation Network: Coastal Marine Component of Multiple Observing Systems. Ninth Symposium on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS). American Meteorological Society 2005.
* Revolutionizing Naval Meteorology Training. Twelfth Symposium on Education. American Meteorological Society 2003.
* Information Content and Non-Profiling Applications of the SSM/T-2. Seventh Conference on Satellite Meteorology and Oceanography 1994.

**Selected Mentored Undergraduate Research/Posters**

* Testing Advancements in InterMet Radiosonde Communications and Performance, Lance Belobrajdic, J. E. Marble, K. Tucker, L. Blind-Doskocil, R. Eldridge, E. Sherman, and D. T. Conlee, 18th Annual Student Conference, American Meteorological Society, 2019 and Student Research Week, Texas A&M University, 2019.
* Potential Applications of Low Power Amateur Radio Digital Modes in Meteorology, Lucero Marquez\*, Q. A. Lawton\*, T. M. Fenske\*, K. L. Squires\*, and D. T. Conlee, 17th Annual Student Conference, American Meteorological Society, 2018.
* Methods of Heat Flux Measurement in a Modular Green Roof System, Austin M. Silva\*, Q. A. Lawton\*, J. E. Marble\*, E. A. Smith\*, E. T. Williams\*, and D. T. Conlee, 16th Annual Student Conference, American Meteorological Society, 2017.
* Real-time Upper Air Support for NASA Scientific High Altitude Balloon Missions, Brooke Ellyn Barker\*, and S. N. Lane\*, M. S. Nichelson\*, D. T. Conlee, J. R. Hays, and R. R. Mullenax, 16th Annual Student Conference, American Meteorological Society, 2017
* Evaluation of a New Low-cost Instrument Package: The Texas Instruments SensorTag, Christian K. Landry\*, and T. W. Spencer\*, T. Fenske\*, L. J. Campbell\*, M. Martin\*, J. Milton\*, D. Grabbs Jr.\*, D. T. Conlee, and T. Logan, 16th Annual Student Conference, American Meteorological Society, 2017.
* Impact of vegetation on rooftop temperatures under a modular green roof system, Austin M. Silva\*, Texas A&M University, College Station, TX; and D. Smith\*, D. Bosworth\*, E. F. Ruano\*, B. J. Toy\*, S. Vaxter\*, C. Landry\*, and D. T. Conlee, 15th Annual Student Conference, American Meteorological Society, 2016.
* Non-internet meteorological data reception for emergency and remote applications, Jamison P. McCarthy\*, Texas A&M University, College Station, TX; and S. Vaxter\*, D. Bonnette\*, D. Conlee, and C. J. Nowotarski, 15th Annual Student Conference, American Meteorological Society, 2016.
* Low-level Wind Comparisons Using Multiple Sensing Technologies, Trenton Wade Spencer\*, Texas A&M University, College Station, TX; and E. F. Ruano\*, B. E. Barker\*, and D. T. Conlee, 15th Annual Student Conference, American Meteorological Society, 2016.
* Cloud Camera Technology for Meteorology Education, 14th Annual AMS Student Conference, Lauren E. Replogle, D. Bosworth and D. Conlee
* Meteorological Displays for a Cloud and Visibility Observatory, 14th Annual AMS Student Conference, 2015, Megan Murat, A. Harte, D. Bosworth, B. Sullivan, S. Vaxter, E. Lewis, C. Rindfuss, D. Conlee, and S. L. Nasiri
* A Raspberry Pi Interface for Ceilometers, 14th Annual AMS Student Conference, 2015, James Coy\*, Megan McKeown\*, and D. Conlee
* Wireless Sensor Data Transmission Techniques in High Precision Meteorological Instrumentation, 13th Annual AMS Student Conference and Career Fair, 2014, Jeffrey C. Cohen\*, A. Tomasco\*, J. Rivas\*, and D. T. Conlee
* Mobile Upper Air Operations in Support of the MPEX Field Experiment, 13th Annual AMS Student Conference and Career Fair, 2014, Avery Tomasco\*, J. Hernandez\*, C. Thomas\*, R. Sodowsky\*, L. Barta\*, C. Holt\*, and D. Conlee
* Micrometeorological Instrumentation of a Green Roof and Living Walls Project13th Annual AMS Student Conference and Career Fair, 2014, Kathryn Westerman\*, R. J. Chilton\*, K. J. Cobb\*, L. E. Seidensticker\*, G. Sims\*, L. Gerber-Chavez\*, H. Upton\*, and D. T. Conlee
* Beta-testing of New InterMet Systems Radiosonde Software, 13th Annual AMS Student Conference and Career Fair, 2014, Sarah E. Spivey\*, D. T. Conlee, M. Murat\*, and R. C. Sodowsky\*
* Teaching Meteorological and Observing Fundamentals Through High-Impact Learning. 22nd Symposium on Education, 2013, Don T. Conlee, S. L. Nasiri and A. D. Rapp
* [How Low Can You Go? Determining the Accuracy of Very Low Cost Internet Weather Stations](https://ams.confex.com/ams/93Annual/webprogram/Paper224546.html), 12th Annual AMS Student Conference, 2013, Christopher D. Wuenscher\*, M. C. Rencurrel\* and D. Conlee
* Upper Air Support for the Hazardous Weather Testbed Spring Experiment, 12th Annual AMS Student Conference, 2013, Mark David Benoit\*, K. Brewer\*, J. Rivas\*, R. C. Sodowsky\*, C. J. Webb\*, and D. T. Conlee
* Vaisala Laser Ceilometer CT12K Cloud Fraction Retrieval Analysis, 12th Annual AMS Student Conference, 2013, Ashley L. Demko\*, C. J. Webb\*, R. C. Sodowsky\*, D. T. Conlee, and S. L. Nasiri
* Atmospheric Profiles on a Budget Using Surplus Radiosondes and Theodolites, 12th Annual AMS Student Conference, 2013, Jonathan Rivas\*, K. Brewer\*, M. D. Benoit\*, and D. T. Conlee
* Comparing Performance of Two Generations of Radiosondes in a Tethersonde Application, 12th Annual AMS Student Conference, 2013, Christopher W. Bradley\*, A. Robinson\*, M. Ruiz\*, and D. T. Conlee
* Understanding the Origins of Data: Teaching Observing Fundamentals, Don T. Conlee, 2012 Unidata User's Workshop, Boulder, CO
* A Tethered Radiosonde Capability for Undergraduate Student Research. 11th Annual AMS Student Conference, 2012, Michael A. Herrera\*, S. N. Stevenson\* and D. T. Conlee
* Practical Applications of a Multi-Parameter Meteorological Instrument in a Mobile Environment. 11th Annual AMS Student Conference, 2012, Ashley L. Demko\*, C. M. Elsik\*, W. A. Hatheway\*, and D. T. Conlee
* PIBAL: Still a Cost-Effective Research and Learning Tool. 11th Annual AMS Student Conference, 2012, Erik R. Nielsen\*, D. T. Conlee and M. T. Crawford\*
* A comparison between AIRS and observed soundings. 11th Annual AMS Student Conference, 2012, M. S. Medina\*, J. D. Joplin\*, S. L. Nasiri, and D. T. Conlee
* Upper air observations over the Gulf oil spill: A student experience of a lifetime. Tenth Annual Student Conference. American Meteorological Society, 2011. G. Seroka\*, D. Delao\*, and D. Conlee.

**Selected Publications**

* Benoit, M. D., C. J. Nowotarski, D. T. Conlee, and L. Wood, 2018: Impacts of a University-led, On-demand Sounding Program on Human and Numerical Weather Prediction Model Forecasts in an Upper-air Observation Hole. J. Operational Meteor., 6 (7), 74-86
* Robert J. Trapp, David J. Stensrud, Michael C. Coniglio, Russ S. Schumacher, Michael E. Baldwin, Sean Waugh, and Don T. Conlee, Mobile radiosonde deployments during the Mesoscale Predictability Experiment (MPEX): Rapid and adaptive sampling of upscale convective feedbacks, Bulletin of the American Meteorological Society, Mar2016, Vol. 97 Issue 3
* Conlee, Don T. 2005. Real-Time Oil Platform Ocean Current Data in the Gulf of Mexico. *AGU Eos Trans.* 86(18). Jt. Assem. Suppl., Abstract OS32A-04.
* Conlee, Don T. 2001. Satellite Data Utilization by U.S. Navy Meteorology and Oceanography. Invited Paper. Eleventh Conference on Satellite Meteorology and Oceanography.
* Rigney, J.P., Bouchard, R., Diamond C., Berkshire, D., L'Heureux D., Conlee D. T., Colton M. 1997. Oceanography from Space in Support of Naval Operations. *Marine Technology Society Journal*.
* Conlee, Don T. and Marie Colton. 1996. Microwave Remote Sensing Primer. *Commander Naval Meteorology and Oceanography Command News*.
* Conlee, Don T. 1994. *Meteorological Information Content and Non-Profiling Applications of the SSM/T-2.* Doctoral Dissertation, Texas A&M University.
* Conlee, Don T. 1991. *Satellite image display and processing with microcomputers: a proof-of-concept for the Navy Oceanographical Data Distribution System (NODDS).* Master's Thesis, Naval Postgraduate School. (Actual code implemented into operational system in 1992)

**Memberships/Affiliations**

* American Meteorological Society
* American Geophysical Union
* Naval Weather Service Association Lifetime Member
* Society for Underwater Technology (Training)
* Gulf Coast Ocean Observing System (GCOOS) Observing Systems Committee (2006-2009)
* CARO-COOPS and CORMP (Academic observation network operators) Science Advisory Boards (2006)
* Former Goal Team member of the GOES-R Cal/Val steering group

\*Instructional Professor is the third rank (Instructional Assistant Professor, Instructional Associate Professor, Instructional (Full) Professor) for Faculty on the Academic Professional Track. Instructional professors typically have accentuated teaching responsibilities above those of Tenure/Tenure Track Faculty, and may have altered research responsibilities. My research concentrates on helping undergraduates have initial research experiences that may lead to further undergraduate research or graduate school/research.