

**Department of Atmospheric Sciences**

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135 S 1460 E Rm 819

Salt Lake City Utah 84112

John Schroeder

Atmospheric Science Group

Department of Geosciences

1205 Media and Communication  
Texas Tech University, Box 41053, Lubbock, TX  
79409-1053 USA

Dear Dr. Schroeder and the TTU Search Committee,

I am writing to apply for the position of Assistant Professor in the Texas Tech University Atmospheric Sciences Group beginning in Fall 2018, as advertised on the American Meteorological Society website. I am currently a Research Assistant Professor in the department of Atmospheric Sciences at the University of Utah. I am very interested in this position at Texas Tech University as my interest and experience in numerical modeling and observational studies of boundary-layer meteorology, mobile observational instrumentation networks, and teaching undergraduate and graduate students make your department and this position a terrific fit.

My academic training and four years of experience working as a post-doctoral researcher and 2 years as a research professor working under well-respected Professor John Horel in the Mountain Meteorology Group at the University of Utah have given me preparation and training in how to be an effective researcher and instructor. I have gained experience in both observational and numerical boundary-layer meteorology research, writing grants, and also working with students in classroom and field work settings.

Expanding a bit on my research experience and why I think this position is an excellent fit, I have studied several aspects of applied boundary-layer meteorology both from modeling and observational perspectives. From a modeling perspective, I have studied the dynamics of boundary-layer flows, with a focus on lake and sea breeze circulations, as well as validating the ability of numerical models to reproduce these flows. From an observational perspective, I have studied a wide range of boundary-layer phenomena and have taken part in numerous field campaigns (e.g., PCAPS, METCRAX2, UWFPS). I have worked with many observational platforms such as lidars, sodars, ceilometers, and an array of air quality instrumentation ranging from fixed sites to unique platforms I have helped deploy air quality sensors on public transportation and a news helicopter. I am also heavily involved in maintaining an array of mesonet stations supported by Mesowest at the University of Utah. The many observational capabilities of Texas Tech and the West Texas Mesonet make this position even more appealing to me.

My teaching experience includes mentoring several M.S. student theses and currently

a Ph.D. student. I am the faculty representative for the local AMS student chapter, and teach a required instrumentation course for undergraduate students. I was the coordinator for over 50 student volunteers during the Persistent Cold Air Pool field campaign in the Salt Lake Valley in 2011. I have a passion for teaching that began in 2009 when I co-taught the Synoptic Meteorology course as a graduate student, receiving the college Outstanding Teaching Assistant Award. I would enjoy increasing my teaching and outreach activities transitioning from a research to a tenure-track faculty position.

Finally, I have a soft spot for the geographical region from eastern New Mexico (where I grew up and my family lives) into West Texas. This region of the country has an impressive range of weather applications (severe weather, fire weather, hydrology, agriculture, wind energy, to name a few) and as a professor at Texas Tech I would be interested in helping expand the linkages between these many applications and the state-of-the art meteorological modeling and observations provided by Texas Tech.

Please find here my curriculum vitae, a statement of teaching and research interests and the names of references.

Sincerely,

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Erik Crosman

Research Assistant Professor

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