

## Erik T. Crosman

Research Assistant Professor  
Department of Atmospheric Sciences, University of Utah  
135 South 1460 East, Rm 819, Salt Lake City, Utah 84112  
505-570-0552, erik.crosman@utah.edu

### (a) Professional Preparation

University of Northern Colorado	Greeley, Colorado	Earth Sciences	B.S., 2003
University of Utah	Salt Lake City, Utah	Atmospheric Sciences	M.D., 2005
University of Utah	Salt Lake City, Utah	Atmospheric Sciences	M.S., 2011
University of Utah	Salt Lake City, Utah	Atmospheric Sciences	Post-doc 2011-2015

### (b) Appointments

Research Assistant Professor – University of Utah July 2015-present

### (c) Products

Crosman, E.T., and J.D. Horel, 2017: Large-eddy simulations of a Salt Lake Valley cold air pool. Accepted, *Atmospheric Research*

Foster, C., E.T. Crosman, and J.D. Horel, 2017. Simulations of a cold-air pool in Utah's Salt Lake Valley: Sensitivity to land use and snow cover. In press, *Boundary-layer Meteorology*

Crosman, E.T., and J.D. Horel, 2016. Wintertime lake breezes near the Great Salt Lake. *Boundary-layer Meteorology*. 159(2), 439-464

Lareau, N.P., E.T. Crosman, C.D. Whiteman, J.D. Horel, S.W. Hoch, W.O.J. Brown, and T.W. Horst, 2013: The Persistent Cold Air Pool Study. *Bulletin of the American Meteorological Society*. 94(1), 51-64.

Silcox, G. D., K. E. Kelly, E. T. Crosman, C. D. Whiteman, and B. L. Allen, 2012: Wintertime PM2.5 concentrations in Utah's Salt Lake Valley during persistent, multi-day cold-air pools. *Atmospheric Environment*. 46, 17-24

### Five Other Significant Products

Blaylock, B., J.D. Horel, and E.T. Crosman, 2017: Impact of lake breezes on summer ozone concentrations in the Salt Lake Valley. *Journal of Applied Meteorology and Climatology*. In press, <http://journals.ametsoc.org/doi/abs/10.1175/JAMC-D-16-0216.1>

Horel, J., E. Crosman, A. Jacques, B. Blaylock, S. Arens, A. Long, J. Sohl, and R. Martin, 2016. Summer ozone concentrations in the vicinity of the Great Salt Lake. *Atmospheric Science Letters*, 17, 480-486. doi:10.1002/asl.680

Neemann, E.M., E.T. Crosman, J.D. Horel, and L. Avey, 2015. Simulations of a cold-air pool associated with elevated wintertime ozone in the Uintah Basin, Utah. *Atmospheric Chemistry and Physics*, 15, 154-151, doi:10.5194/acp-15-135-2015

Crosman, E.T., and J.D. Horel, 2012: Idealized large-eddy simulations of sea and lake breezes: Sensitivity to lake diameter, heat flux, and stability. *Boundary-layer Meteorology*. 144, 309–328

Crosman, E.T., and J.D. Horel, 2010: Sea and lake breezes: A review of numerical studies. *Boundary-layer Meteorology*. 137, 1-29

#### **(d) Synergistic Activities**

- Program Co-chair of the American Meteorological Society Mountain Meteorology Conference, 2016
- Assisting in developing hands-on educational material for weather station deployment and other field-training (e.g., rawinsonde launches and recovery, quadcopter profiling of boundary-layer) and laboratory training (e.g., a rpi laboratory) of undergraduate students for the class ATMOS 5050/6050: Atmospheric Instrumentation, 2014 and 2016.
- Recipient of the Edward J. Zipser Outstanding Graduate Student Award, 2011 and the Outstanding Service Award from the Department of Atmospheric Sciences for leading the Persistent Cold-Air Pool Study, 2011.
- Served on interdisciplinary NASA earth system science team (2012) and Multi-sensor Improved Sea Surface Temperatures (2014-present) working to improve lake temperature retrievals for numerical weather prediction models.

#### **(e) Collaborators and Other Affiliations**

##### **Collaborators and Co-Editors**

Seth Arens, Western Water Assessment and CIRES, NWS-NOAA

Lance Avey, Environmental Protection Agency

Mike Chin, JPL/Caltech

Nancy Daher, University Division of Air Quality

Stephan de Wekker, University of Virginia

Ben Fasoli, University of Utah

Bob Grumbine, NOAA

John Horel, University of Utah

Alex Jacques, University of Utah

John Lin, University of Utah

Randy Martin, Utah State University

Daniel Mendoza, University of Utah

Logan Mitchell, University of Utah

Erik Neemann, US Air Force

Chris Pennell, Utah Division of Air Quality

Jorge Vasquez, NASA JPL/Caltech

##### **Graduate Advisors and Postdoctoral Sponsors**

John Horel, University of Utah (advisor for graduate studies and for postdoctoral studies)

##### **Thesis Advisor and Postgraduate-Scholar Sponsor**

Chris Foster, University of Utah