



ATOC COLLOQUIUM

Welcome!

Please join us for the next ATOC Colloquium on **Friday, March 8** from **11:00 AM–12:00 PM**, which will be held in **SEEC S228 and simulcast over Zoom**. This week's colloquium features **Dr. Gijs de Boer (CIRES/NOAA PSL)**. Please join us for coffee beginning at 10:45 AM and stay for lunch catered by Illegal Pete's afterwards.

Learning to Fly – Use of Robotic Aircraft for Atmospheric Observing

Have you ever dreamed you can fly? For atmospheric scientists, the possibility offers endless opportunity to see things in a new light. Taking detailed, high-resolution measurements of quantities that govern physical and chemical drivers of weather and climate, particularly in areas that were otherwise challenging or dangerous to evaluate, is something that I started dreaming about in graduate school. After transitioning to the University of Colorado Boulder in 2011, I started to engage colleagues in the engineering sciences to make this dream a reality, working to develop innovative robotic observing systems to collect detailed measurements of the lower atmosphere and underlying surface. Over the last decade, this work has taken me across the globe to observe a range of exciting phenomena, including work to study cloud and lower atmospheric processes in the Arctic, air-sea exchange in the tropics and its role in supporting the lifecycle of trade cumulus, mountain hydrology, coastal processes and their impacts on air quality, and other lower-atmospheric phenomena. In this seminar, I will offer insight into recent studies that have involved University of Colorado uncrewed aircraft systems (UAS), some scientific outcomes resulting from these deployments, and the student and public engagement opportunities that these systems have helped to support. I will additionally provide some thoughts on the next frontiers in observing the atmosphere and Earth system with small UAS, and highlight opportunities for engagement and collaboration.



Location: SEEC S228 & Zoom

Zoom:

<https://cuboulder.zoom.us/j/93794324385>

Password: ATOC

About the ATOC Colloquium

The Department of Atmospheric and Oceanic Sciences (ATOC) Colloquium is typically held **every other Friday** from **11:00 AM–Noon**. Colloquia alternate between the following formats: (A) Full-length talk by a faculty member or invited speaker, (B) Three conference-length talks by graduate students. If you would like to nominate a speaker (including self), please email the ATOC Colloquium Committee Chair, Prof. Andrew Winters (andrew.c.winters@colorado.edu). Please visit www.colorado.edu/atoc/colloquium for further details.