

**Partnerships for
Science:**

**Wisconsin ECB and
UW-Madison**

**Two decades of innovation
at the WLEF-TV Park Falls
tall tower**

*Ankur R Desai
Dept of Atmospheric and Oceanic Sciences
UW-Madison*

*WI ECB Board Meeting
31 January 2020*

University of Wisconsin-Madison

Department of Atmospheric and Oceanic Sciences

Who We Are

Since 1948 we have grown into one of the leading departments in our field of Atmospheric and Oceanic Sciences. We have strong graduate and undergraduate programs which are nationally recognized. We graduate about 15 Ph.D. and M.S. students each year; our graduates are active in research labs and universities around the world. We graduate approximately 20 B.S. students each year; they choose options allowing a focus on weather systems or general atmospheric science.

Our faculty of 15 has long maintained breadth and special strength in three areas:

- Climate systems, including the ocean
- Satellite and remote sensing
- Weather systems, including synoptic dynamic

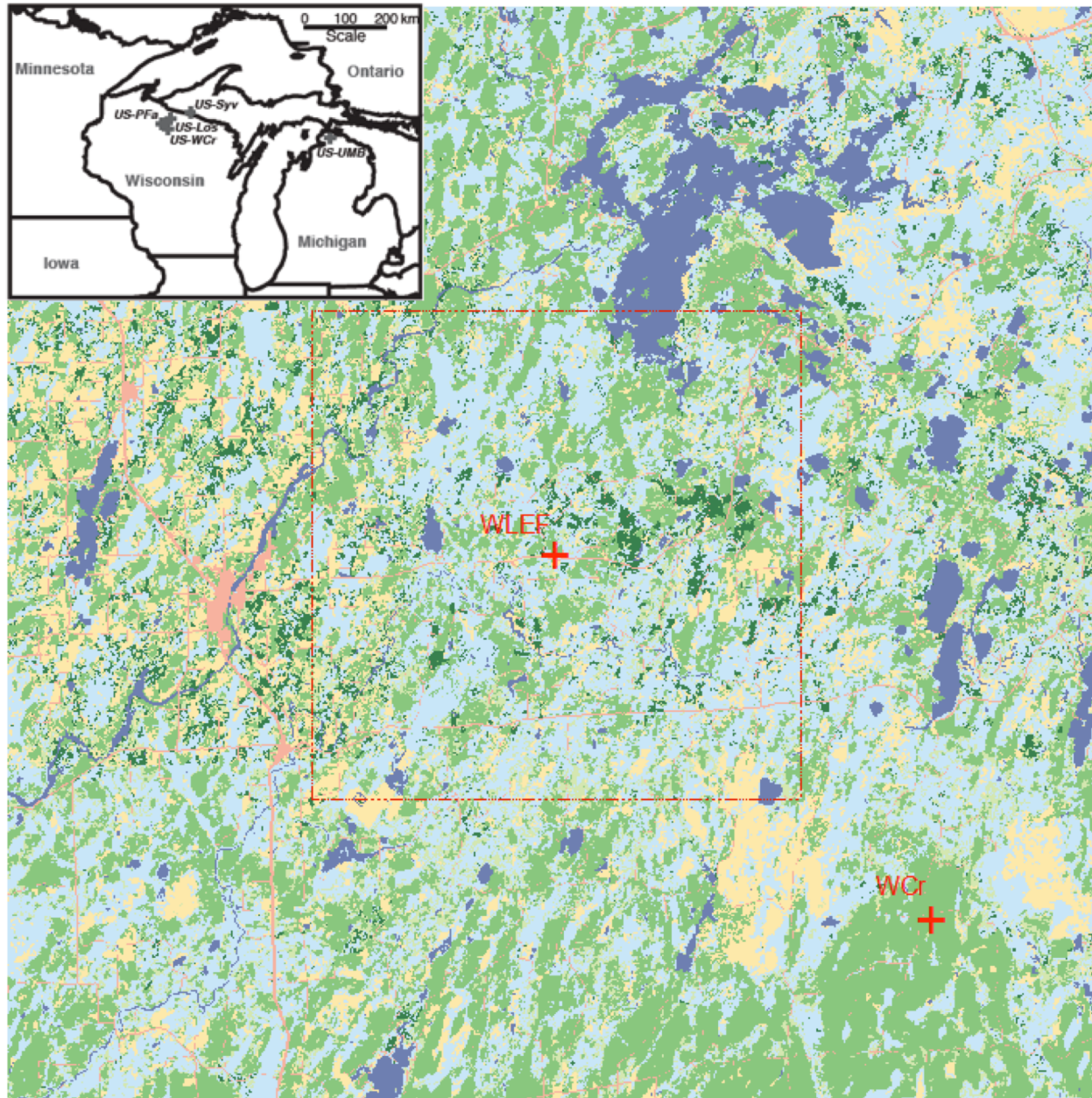


Space Science and Engineering Center
University of Wisconsin-Madison



Center for Climatic Research
NELSON INSTITUTE
UNIVERSITY OF WISCONSIN-MADISON





0 2 4 8 km



What are we doing in the Northwoods?

- For the past 25 years, advanced scientific instrumentation mounted on the tall tower have provided key observations for the atmosphere and for ecosystems, some of the longest running of its type
- These public access data are used by thousands of scientists and educators around the world
- Its location, presence of long-term observations, and good working relationships has also promoted a number of studies throughout the region in the surrounding forests that have advanced climate science and ecology



Peter Bakwin
NOAA (Colorado)



Ken Davis
Penn State



Arlyn Andrews
NOAA (Colorado)



Jon Kofler
NOAA (Colorado)



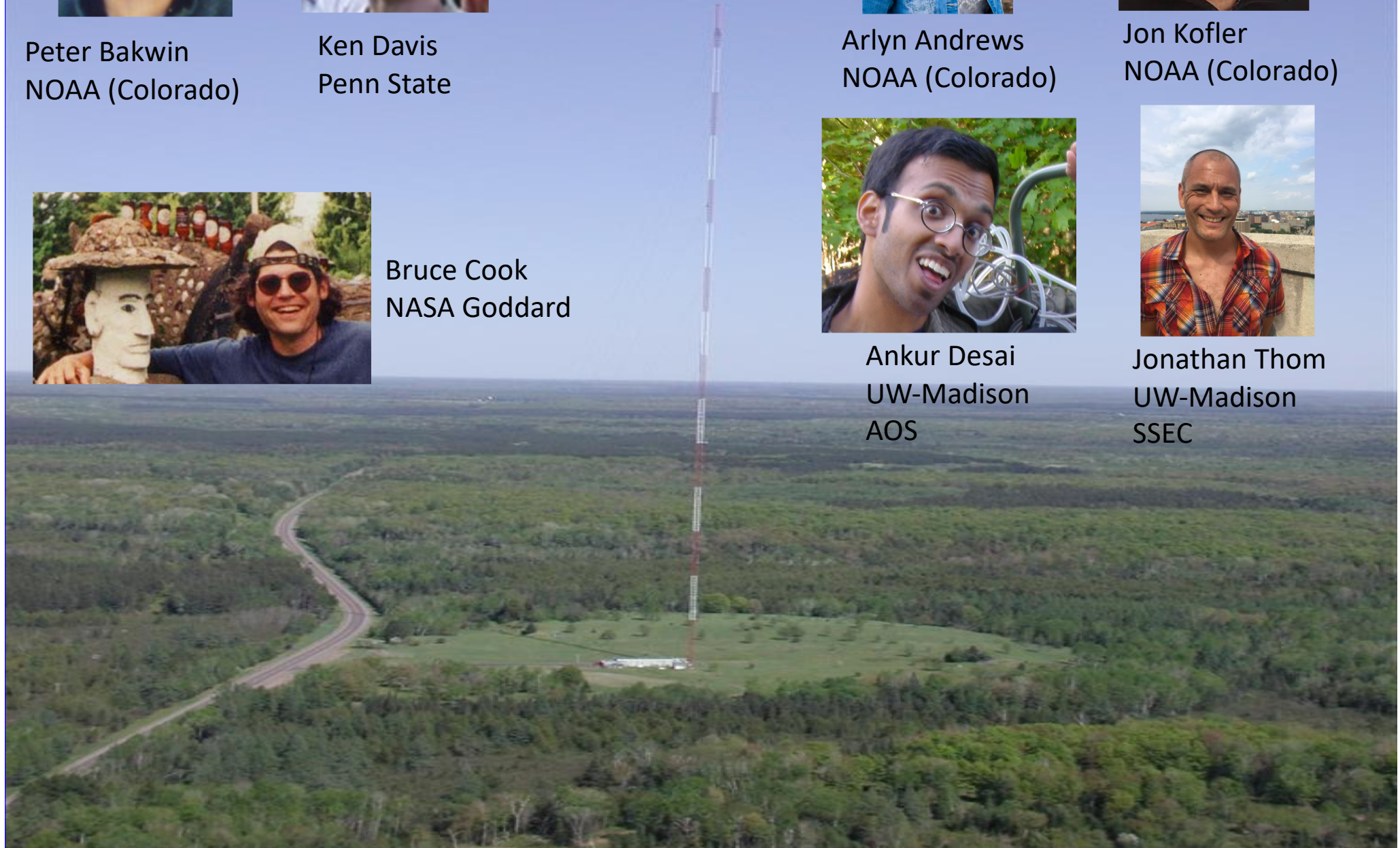
Bruce Cook
NASA Goddard



Ankur Desai
UW-Madison
AOS

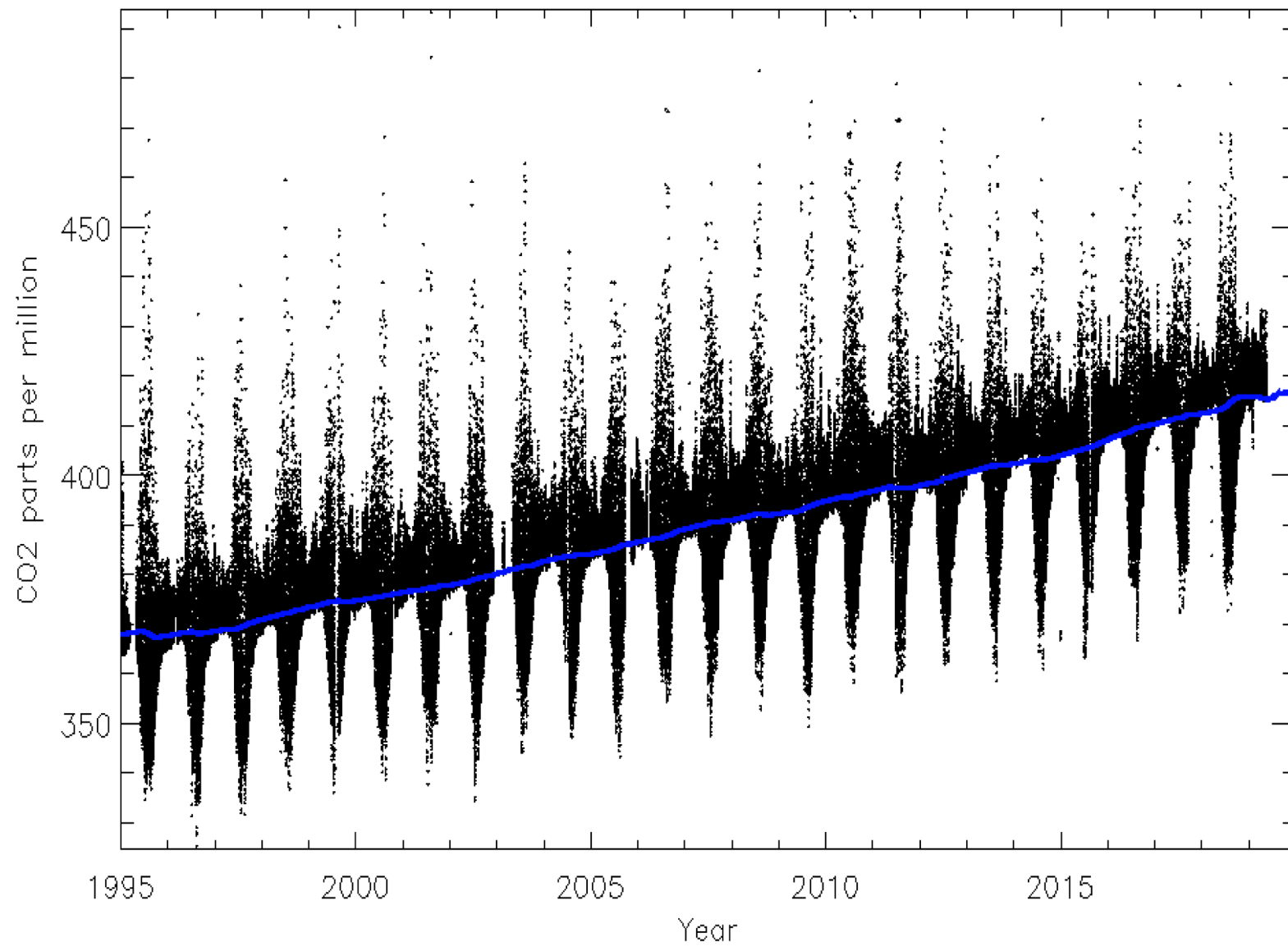


Jonathan Thom
UW-Madison
SSEC

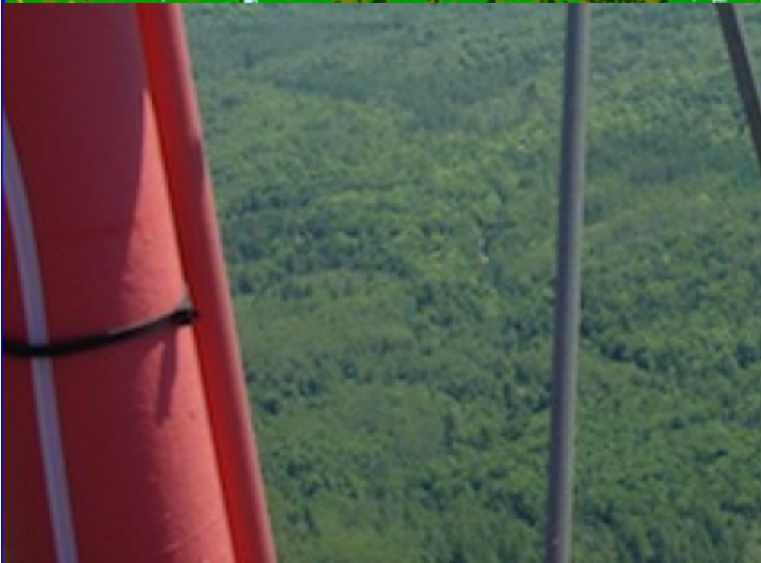
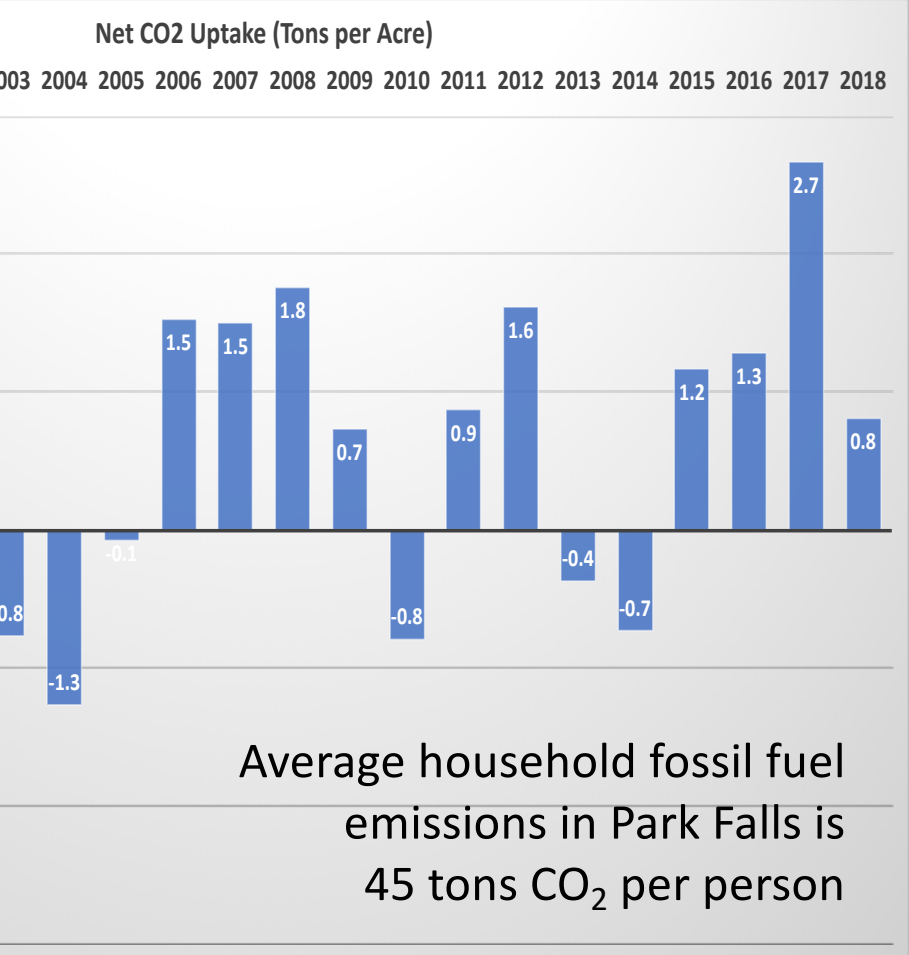
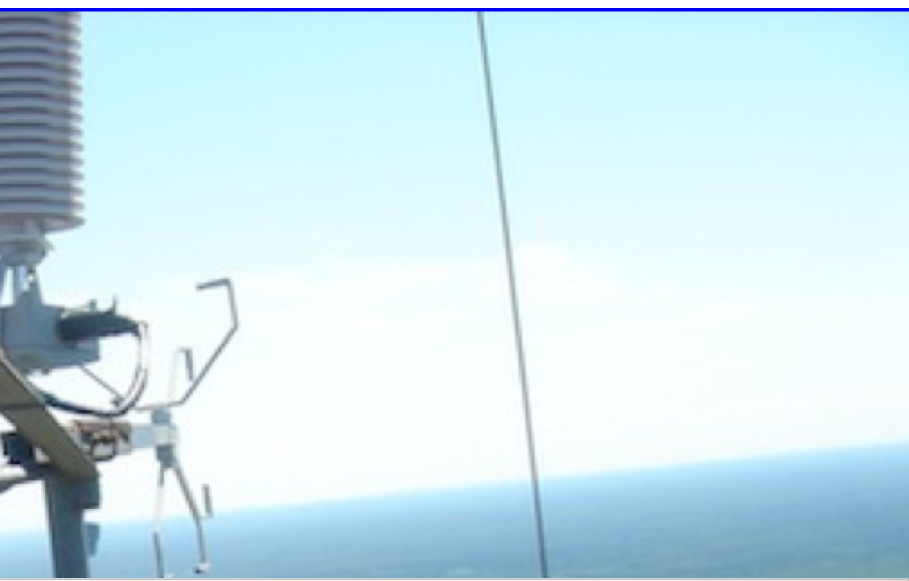
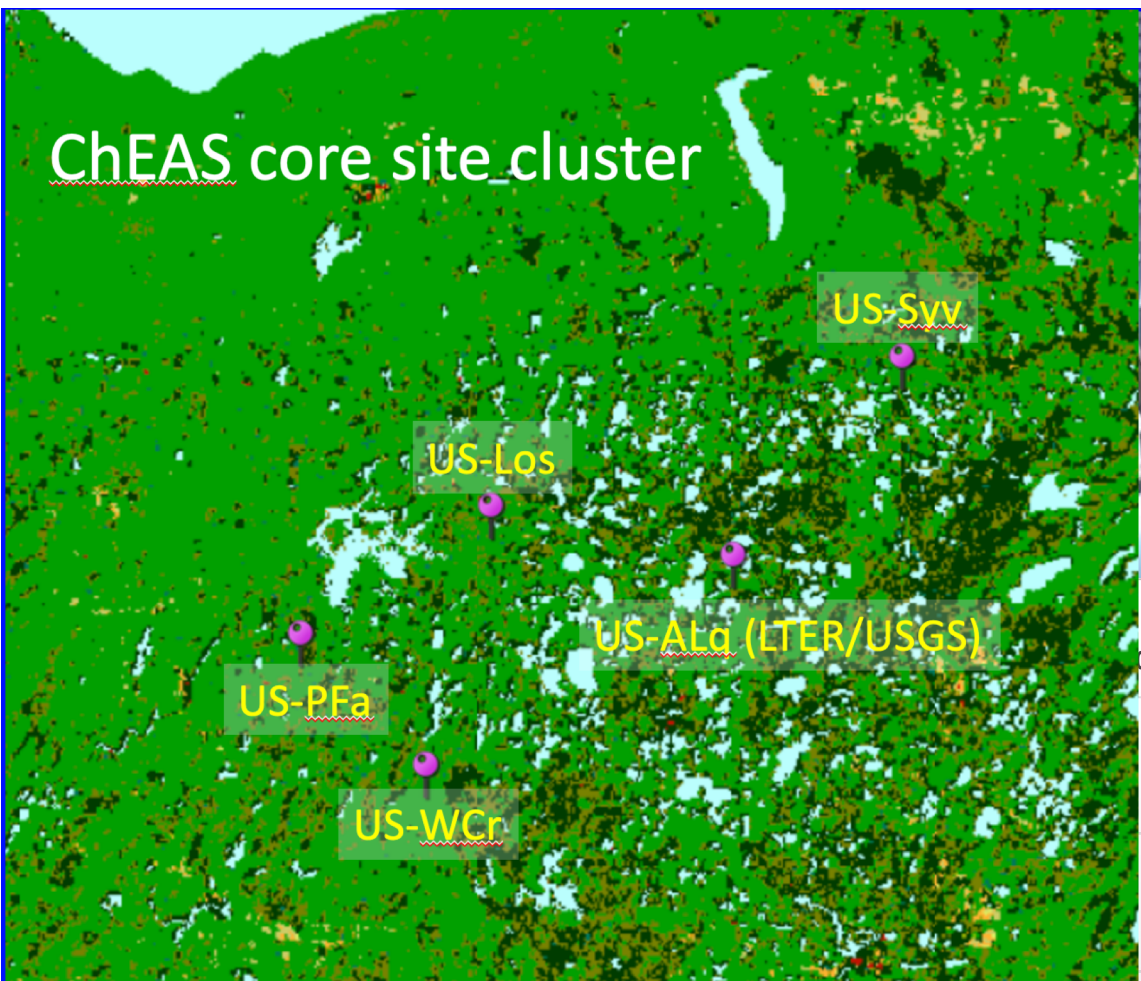


Science in a “box”





ChEAS core site_cluster



Did someone say "CHEESEHEAD"?



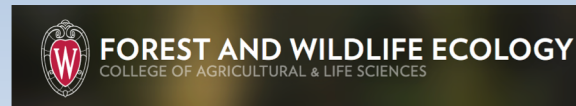
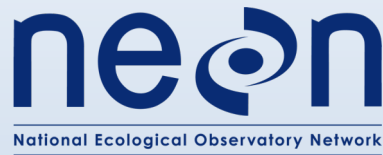
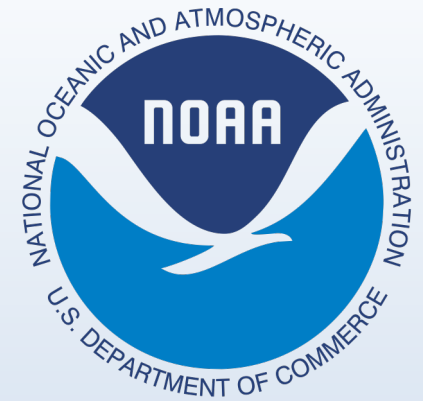
The infinite flux tower project



Introducing the
Chequamegon Heterogeneous Ecosystem
Energy-balance Study Enabled by a High-
density Extensive Array of Detectors
(CHEESEHEAD19)

NSF #AGS-1822420, DFG (Germany), DOE Ameriflux





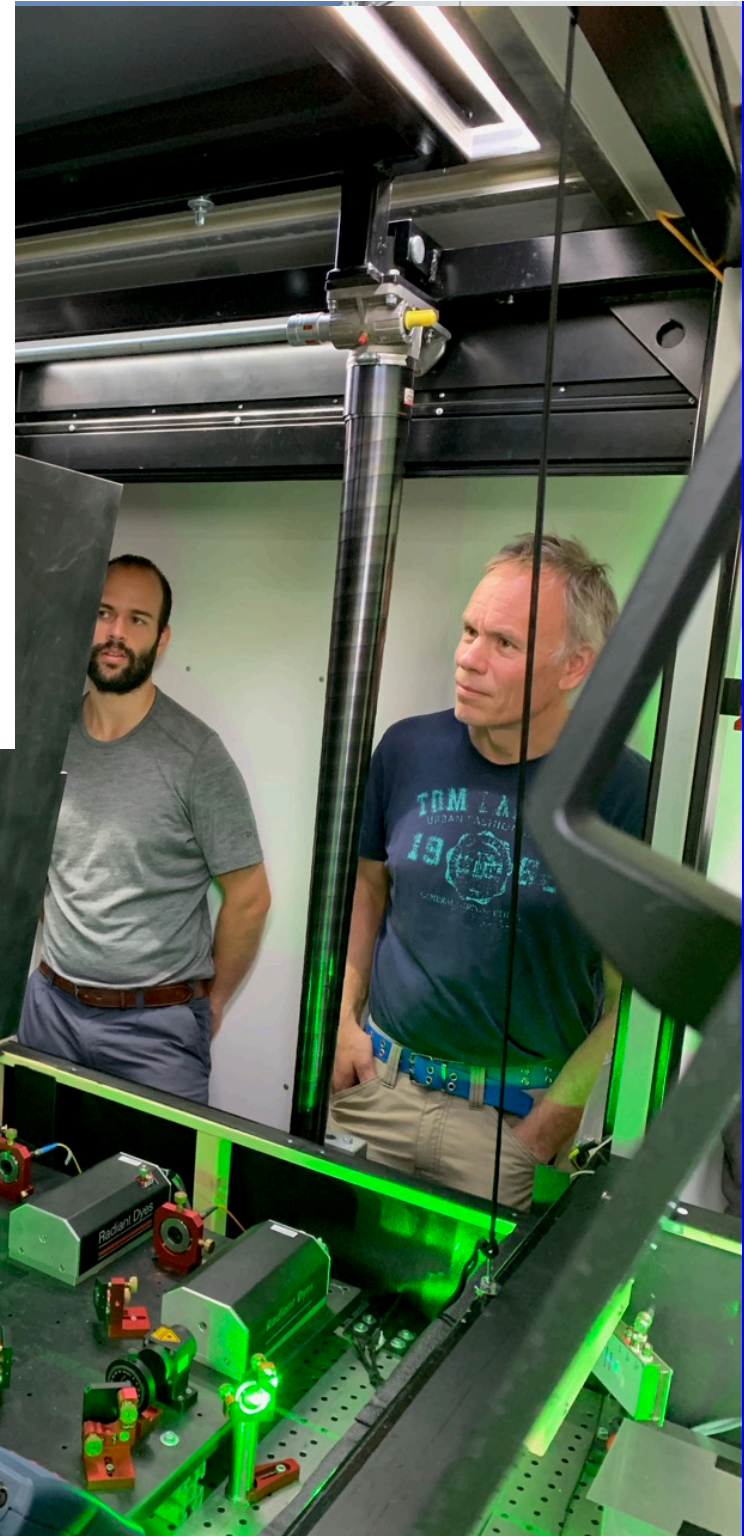
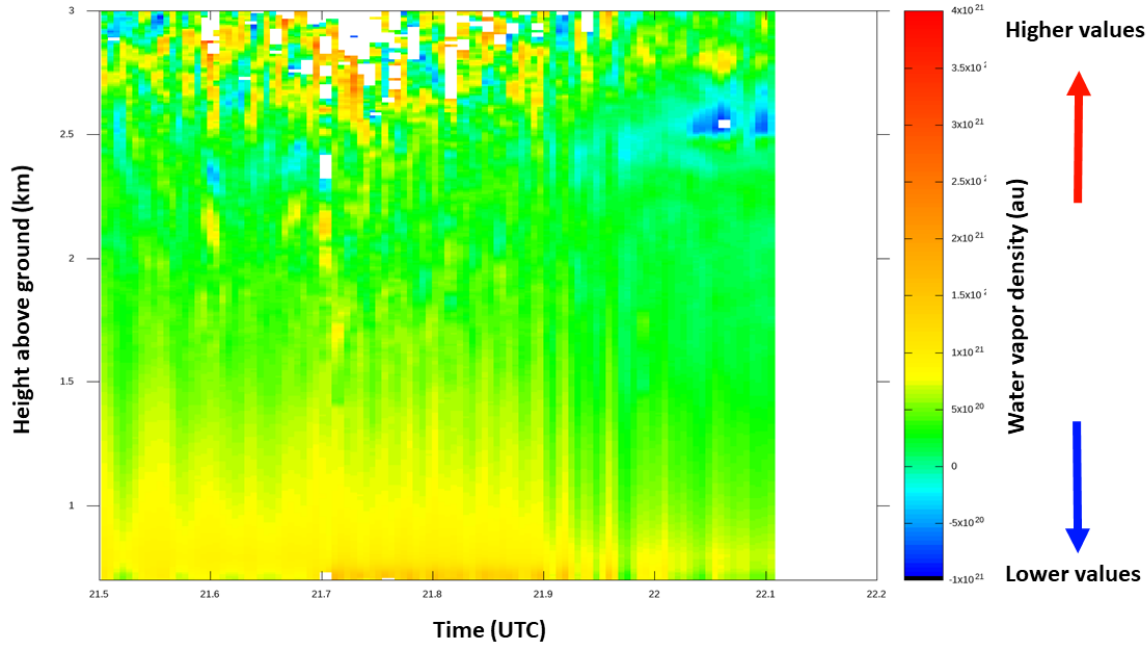








2019/09/24





CHEESEHEAD Open House, August 2019



Other events: Local high school groups, UW-Madison classes, College of Menominee Nation program, journalists, instrument vendors, forestry workshops

Supporting Science

- Over a quarter century, our partnership with WI ECB at WLEF Park Falls and partners at USFS has supported numerous workshops, field projects, public outreach events, and scientific publications
- We are indebted to the hard work, generosity, and patience of the team in Park Falls
- We hope to continue this partnership into the future, pushing scientific frontiers with tall towers!



THANKS!!!

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