

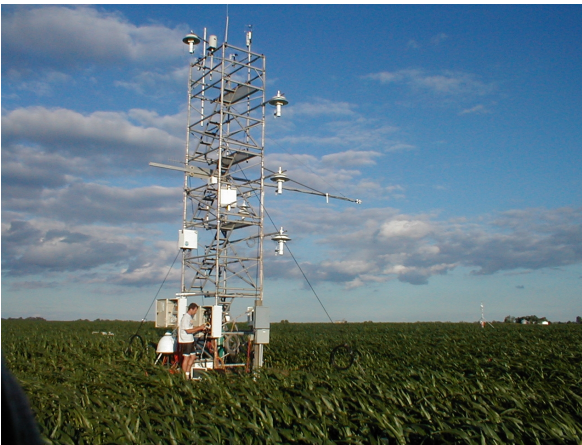
Department of Geological and Environmental Sciences

Spring 2018 Course:

Boundary Layer Meteorology

GEOS 619 (3 units)

Instructor: Dr. Shane Mayor



Above left: Photo of a tower supporting atmospheric flux measuring instrumentation. Right: an ultrasonic anemometer and a LICOR 7500 open path gas analyzer. Fluxes are determined by a measurement technique known as *eddy covariance*.

The atmospheric or planetary boundary layer (ABL or PBL) is the lowest layer of the Earth's atmosphere that is in contact with the surface of the Earth and responds to forcing by the surface quickly. All of the world's above-ground terrestrial biosphere lives within the ABL and the ABL is critical to regulating the environment in which organisms live. For example, the transport of water vapor, carbon dioxide, and oxygen either toward or away from a canopy is performed by turbulence. Turbulence is strongly influenced by surface characteristics such as roughness and temperature. Therefore, an understanding of the ABL is critical for a comprehensive understanding of ecosystems, the hydrologic cycle, carbon cycling, and Earth system science.

Prerequisites: PHYS 202A or PHYS 204A and MATH109 or MATH 120.

Interested? Please contact Dr. Shane Mayor (sdmayor@csuchico.edu, Office: PHSC 117) as soon as possible for anticipated enrollment count.