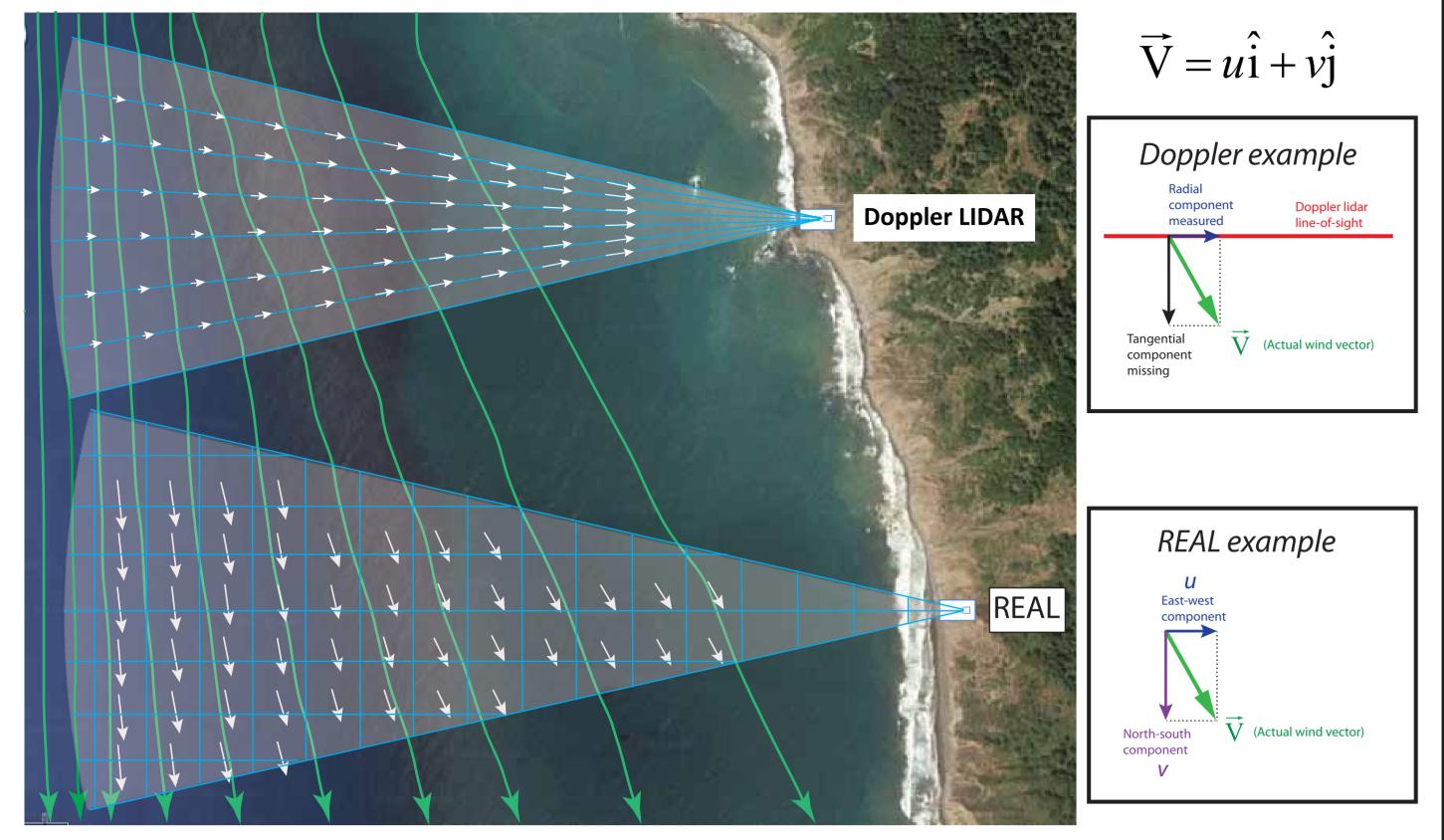
Two-component horizontal wind vectors from the Raman-shifted Eye-safe Aerosol Lidar (REAL) Shane D. Mayor, Depts. of Physics and Geosciences, California State University, Chico, CA, USA

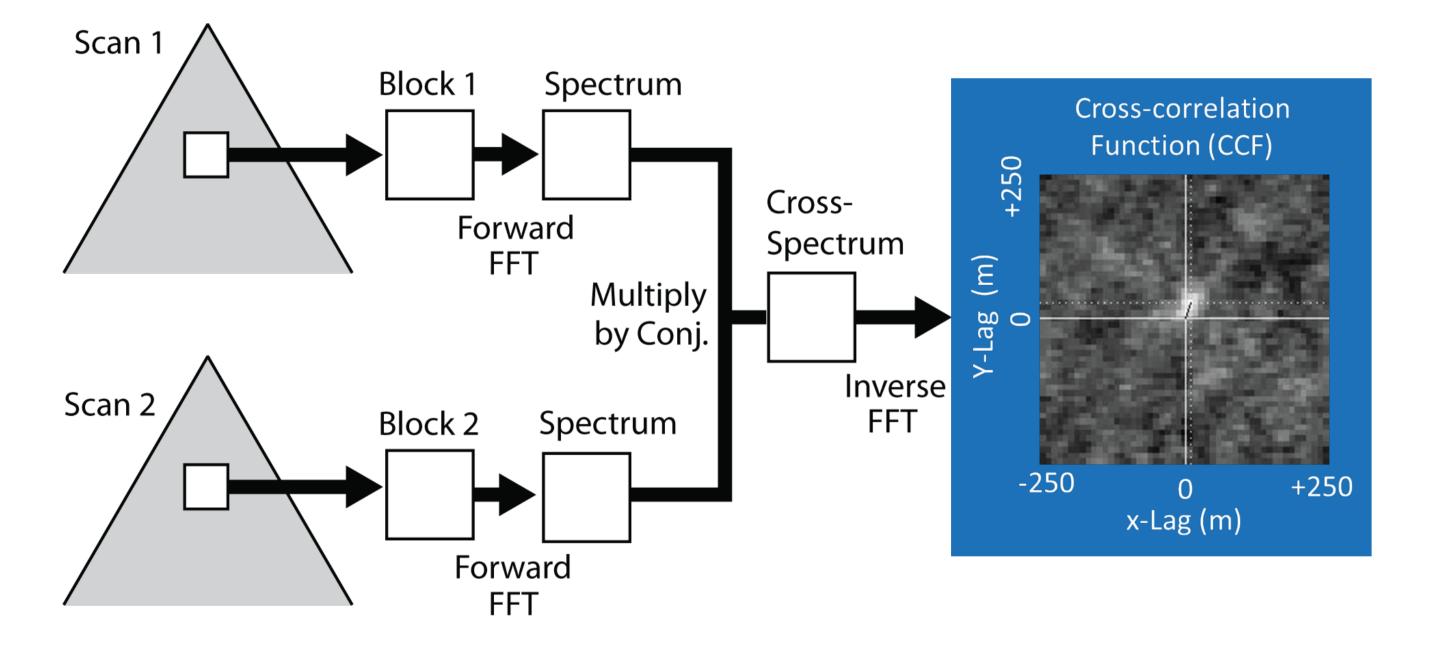
1. Relevance to Wind Energy

Wind resource assessment and very short-term predictions of the wind are likely to be of value in the development and production of wind energy.



Doppler lidars provide a direct measurement of only the radial component of air motion (see top scan area in above figure). Two velocity components are necessary for wind speed and direction (see bottom scan area in above figure).



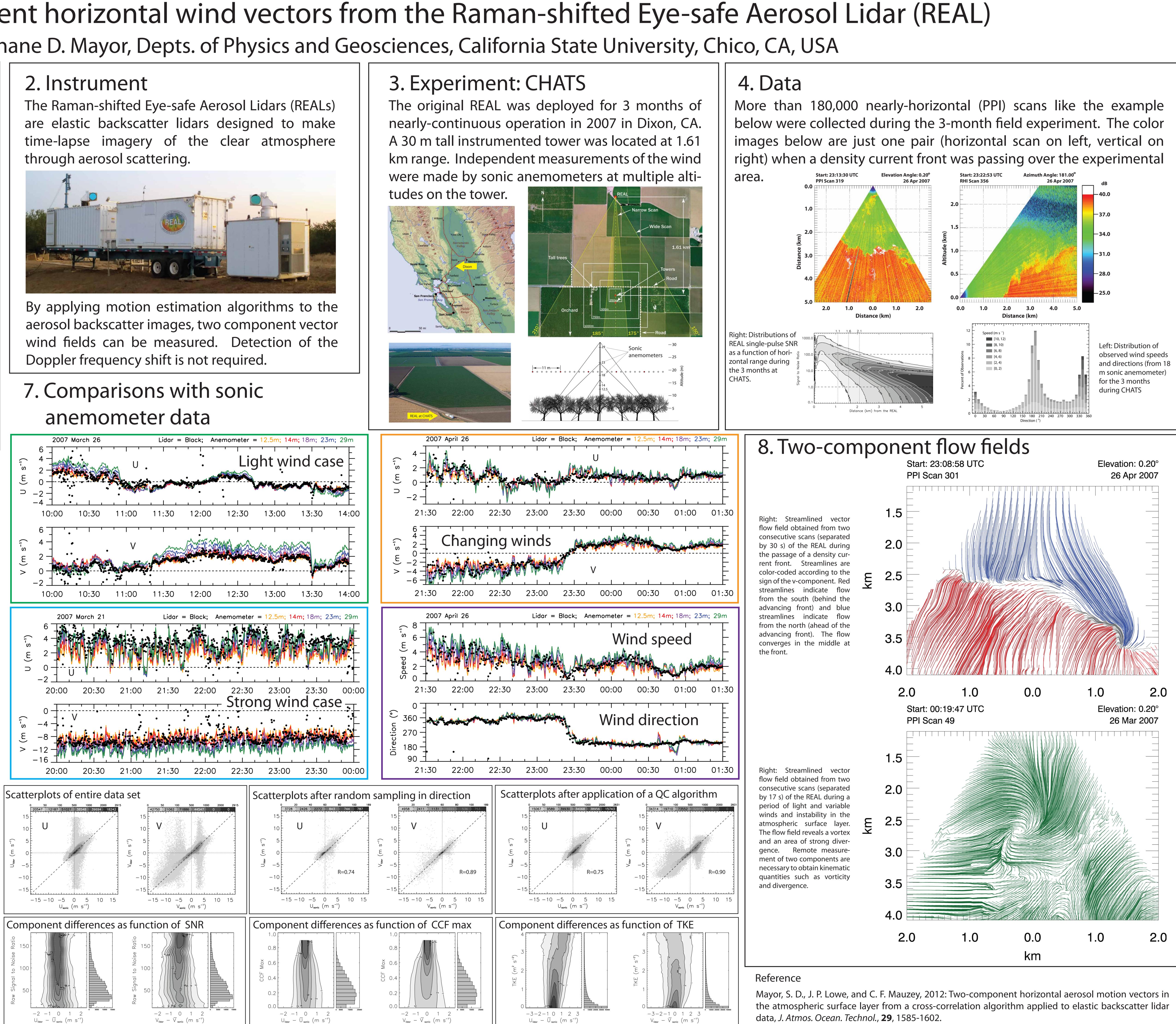


6. Data processing Method used for making time-series comparisons: SCAN ² SCAN 2 SCAN 3 SCAN 4 EDGE OF FULL SCAN LIDAR VECTOR 1 LIDAR VECTOR 2 LIDAR VECTOR 3 ANEMOMETER AVG. 2 ANEMOMETER AVG. ANEMOMETER AVG. 13 14 15 SCAN 4 TIME

Acknowledgment: NSF AGS 0924407 (Physical and Dynamic Meteorology Program).



anemometer data



data, J. Atmos. Ocean. Technol., 29, 1585-1602.