



BOREAS TF-10 NSA-FEN TOWER FLUX AND METEOROLOGICAL DATA

Get Data

Summary:

The BOREAS TF-10 team collected tower flux and meteorological data at two sites, a fen and a young jack pine forest, near Thompson, Manitoba, Canada, as part of BOREAS. A preliminary data set was assembled in August 1993 while field testing the instrument packages, and at both sites data were collected from 15-Aug to 31-Aug. The main experimental period was in 1994, when continuous data were collected from 08-Apr to 23-Sept at the fen site. A very limited experiment was run in the spring/summer of 1995, when the fen site tower was operated from 08-Apr to 14-Jun in support of a hydrology experiment in an adjoining, feeder basin. Upon examination of the 1994 data set, it became clear that the behavior of the heat, water, and carbon dioxide fluxes throughout the whole growing season was an important scientific question, and that the 1994 data record was not sufficiently long to capture the character of the seasonal behavior of the fluxes. Thus, the fen site was operated in 1996 in order to collect data from spring melt to autumn freeze-up. Data were collected from 29-Apr to 05-Nov at the fen site. All variables are presented as 30-minute averages.

A guide document which includes more information about this data set can be found at http://daac.ornl.gov/daacdata/boreas/TF/tf10xmt/comp/TF10_NSA-Fen_Flux.txt.

ORNL DAAC maintains information on the entire [BOREAS Project](#).

Data Citation

Cite this data set as follows:

McCaughey, J. H., P. M. Lafleur, and D. Jelinski. 1999. BOREAS TF-10 NSA-Fen Tower Flux and Meteorological Data. Data set. Available on-line [<http://www.daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/368.

References:

Costello, A.M. 1995. Canopy Characteristics and Surface-Atmosphere Interactions of a Young Jack Pine Forest Near Thompson, Manitoba, M.Sc. Thesis, Queen's University, Kingston, Ontario, 125 pp.

Hodges, G.B. and E.A. Smith. 1997. Intercalibration, objective analysis, inter-comparison, and synthesis of BOREAS surface net radiation measurements. *Journal of Geophysical Research* 102(D24):28,885-28,900.

Joiner, D.W. 1994. Corrections to TF-10 eddy covariance fluxes. Queen's University internal report, 23 pp.

Lafleur, P.M., J.H. McCaughey, D.W. Joiner, P.A. Bartlett, and D.E. Jelinski. 1997. Seasonal trends in energy, water, and carbon dioxide fluxes at a northern boreal wetland. *Journal of Geophysical Research* 102(D24):29,009-29,020.

McCaughey, J.H., P.M. Lafleur, D.W. Joiner, P.A. Bartlett, A.M. Costello, D.E. Jelinski, and M.G. Ryan. 1997. Magnitudes and seasonal patterns of energy, water, and carbon exchanges at a boreal young jack pine forest in the BOREAS northern study area. *Journal of Geophysical Research* 102(D24):28,997-29,008.

Sellers, P. and F. Hall. 1996. Boreal Ecosystem-Atmosphere Study: Experiment Plan. Version 1996-2.0, NASA BOREAS Report (EXPLAN 96).

Sellers, P., F. Hall, and K.F. Huemmrich. 1996. Boreal Ecosystem-Atmosphere Study: 1994 Operations. NASA BOREAS Report (OPS DOC 94).

Sellers, P., F. Hall, and K.F. Huemmrich. 1997. Boreal Ecosystem-Atmosphere Study: 1996 Operations. NASA BOREAS Report (OPS DOC 96).

Sellers, P., F. Hall, H. Margolis, B. Kelly, D. Baldocchi, G. den Hartog, J. Cihlar, M.G. Ryan, B. Goodison, P. Crill, K.J. Ranson, D. Lettenmaier, and D.E.

Wickland. 1995. The boreal ecosystem-atmosphere study (BOREAS): an overview and early results from the 1994 field year. Bulletin of the American Meteorological Society. 76(9):1549-1577.

Sellers, P.J., F.G. Hall, R.D. Kelly, A. Black, D. Baldocchi, J. Berry, M. Ryan, K.J. Ranson, P.M. Crill, D.P. Lettenmaier, H. Margolis, J. Cihlar, J. Newcomer, D. Fitzjarrald, P.G. Jarvis, S.T. Gower, D. Halliwell, D. Williams, B. Goodison, D.E. Wickland, and F.E. Guertin. 1997. BOREAS in 1997: Experiment overview, scientific results, and future directions. Journal of Geophysical Research 102(D24):28731-28769.

Smith, E.A., G.B. Hodges, M. Bacrania, H.J. Cooper, M.A. Owens, R. Chappell, and W. Kincannon. 1997. Final Report NASA Grant NAG5-2447, BOREAS Net Radiometer Engineering Study. Goddard Space Flight Center, Greenbelt, Maryland. 51 pp.

Data Format:

For information on Parameter/Variable Names, Variable Description/Definition, Units of Measurement, and Data File Format see this companion file <http://daac.ornl.gov/daacdata/boreas/TF/tf10fxmt/comp/tf10fxmt.def>

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