

BOREAS RSS-07 REGIONAL LAI AND FPAR IMAGES FROM TEN-DAY AVHRR-LAC COMPOSITES

Summary:

The BOREAS RSS-07 team focused their efforts on developing and validating procedures and algorithms that would allow the retrieval of LAI from remotely sensed vegetation indices. This data set contains images of LAI and FPAR that were produced from the AVHRR Level-4c ten-day composite NDVI images produced at CCRS for the three summer IFCs in 1994. The algorithms were developed based on ground measurements and Landsat TM images (Chen and Cihlar, 1996; Chen, 1996b). The data are provided in binary image format files. Companion files include example thumbnail images that may be viewed and the image data files downloaded using a convenient viewer utility.

A guide document which includes more information about this data set can be found at http://daac.ornl.gov/boreas/RSS/r7laipa/comp/RSS07_AVHRR_LAI_FPAR.txt.

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

Data Citation

Cite this data set as follows:

Chen, J. M., and J. Cihlar. 1999. BOREAS RSS-07 Regional LAI and FPAR Images From Ten-Day AVHRR-LAC Composites. 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/442](https://doi.org/10.3334/ORNLDAAC/442).

References:

Chen, J.M. 1996b. Canopy Architecture and remote sensing of the fraction of photosynthetically active radiation absorbed by boreal forests. *IEEE Trans. Geosci Remote Sens.* 34:1353-1368.

Chen, J.M. 1996c. Evaluation of vegetation indices and a modified simple ratio for boreal applications. *Can. J. Remote Sens.* 22:229-242.

Chen, J.M. and J. Cihlar 1996. Retrieving leaf area index in boreal forests using Landsat TM images. *Remote Sensing of Environment* 55:153-162.

Li, Z., J. Cihlar, X. Zheng, L. Moreau, and H. Ly. 1996. The bidirectional effects of AVHRR measurements over northern regions. *IEEE Transactions on Geoscience and Remote Sensing* (accepted).

Sellers, P. and F. Hall. 1994. Boreal Ecosystem-Atmosphere Study: Experiment Plan. Version 1994-3.0, NASA BOREAS Report (EXPLAN 94).

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

Sellers, P. and 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.F., 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 (JGR), BOREAS Special Issue, 102(D24), Dec. 1997, pp. 28731-28770.

Data Format:

There is no data format file for this dataset.

Document Information:

07-Oct-1999 (data citation revised on 26-Sep-2002)

Document Review Date:

07-Oct-1999

Document Curator:

webmaster@daac.ornl.gov

Document URL:

<http://daac.ornl.gov>