

BOREAS TE-18, 30-M, RADIOMETRICALLY RECTIFIED LANDSAT TM IMAGERY

Summary:

The BOREAS TE-18 team used a radiometric rectification process to produce standardized digital number (DN) values for a series of Landsat TM images of the BOREAS SSA and NSA in order to compare images that were collected under different atmospheric conditions. The images for each study area were referenced to an image that had very clear atmospheric qualities. The reference image for the SSA was collected on 02-Sep-1994, while the reference image for the NSA was collected on 21-Jun-1995. The 23 rectified images cover the period of 07-Jul-1985 to 18-Sep-1994 in the SSA and from 22-Jun-1984 to 09-Jun-1994 in the NSA. Each of the reference scenes had coincident atmospheric optical thickness measurements made by RSS-11. The radiometric rectification process is described in more detail by Hall et al. (1991). The original Landsat TM data were received from CCRS for use in the BOREAS project. The data are stored in binary image-format files. Due to the nature of the radiometric rectification process and copyright issues, these full resolution images may not be publicly distributed. However, a spatially degraded 60-m resolution version of the images is available on the BOREAS CD-ROM series. Companion files include (1) an image inventory listing to inform users of the images that are available and (2) 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/TE/te18ls30/comp/TE18_Rad_Rectif_30m.txt.

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

Data Citation

Cite this data set as follows (citation revised on October 29, 2002):

Hall, F. G. 2000. BOREAS TE-18, 30-m, Radiometrically Rectified Landsat TM Imagery. Data set. Available with restrictions from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. [<http://www.daac.ornl.gov>].

References:

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

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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/boreas/TE/te18ls30/comp/te18ls30.def>

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