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BOREAS RSS-17 1994 ERS-1 LEVEL-3 FREEZE/THAW BACKSCATTER CHANGE IMAGES

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Summary:

The BOREAS RSS-17 team acquired and analyzed imaging radar data from the ESA's ERS-1 over a complete annual cycle at the BOREAS sites in Canada in 1994 to detect shifts in radar backscatter related to varying environmental conditions. Two independent transitions corresponding to soil thaw and possible canopy thaw were revealed by the data. The results demonstrated that radar provides an ability to observe thaw transitions at the beginning of the growing season, which in turn helps constrain the length of the growing season. The data set presented here includes change maps derived from radar backscatter images that were mosaicked together to cover the southern BOREAS sites. The image values used for calculating the changes are given relative to the reference mosaic image. Due to copyright issues, the 01-March-1994 reference image is not included on the CD-ROM and is not publically available. See the accompanying guide document for information about how to possibly acquire the data. The data are stored in binary image format files.

A guide document which includes more information about this data set can be found at http://daac.ornl.gov/daacdata/boreas/RSS/rss17fth/comp/RSS17_FreezeThaw_Maps.txt.

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

Data Citation

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

Way, J., R. Zimmerman, K. McDonald, and E. Rignot. 1999. BOREAS RSS-17 1994 ERS-1 Level-3 Freeze/Thaw Backscatter Change Images. ORNL DAAC, Oak Ridge, Tennessee, USA. <http://dx.doi.org/10.3334/ORNLDAAC/484>

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Data Format:

There is no data format file for this dataset.

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