BOREAS FOLLOW-ON DSP-10 REGRIDDED NDVI MAPS FOR 1994
Get Data

Summary:

These images were produced by averaging the 1-km FASIR-NDVI maps by Jing Chen to a 10' (horizontal) by 5' (vertical) pixel size in a straight latitude/longitude grid.

See the document BOREAS Level-4c AVHRR-LAC Ten-Day Composite Images: Surface Parameters for more information on the original data product that this is based on.

Regridded NDVI Maps, 10 by 5 minutes

Data Citation:

Cite this data set as follows (citation revised on October 30, 2002):

Hall, F., G. Rapalee, and David Knapp. 2001. BOREAS Follow-On DSP-10 Regridded NDVI Maps for 1994. 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.

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Processing:

If there are any questions about how this aggregation was done, please contact Dave Knapp (David.Knapp@gsfc.nasa.gov).

Regridded NDVI Maps for 1994, 10 by 5 minutes

These images were produced by averaging the 1-km FASIR-NDVI maps by Jing Chen to a 10' (horizontal) by 5' (vertical) pixel size in a straight latitude/longitude grid. Each pixel represents the average NDVI of the1-km pixels that fall in each 10' by 5' pixel, where more than 50% of the 1-km pixels in the 10' by 5' area are not cloud and are not missing. If more than 50% of the 1-km pixels are missing or cloudy, a value of 0 is assigned to the10' by 5' pixel. See the document BOREAS Level-4c AVHRR-LAC Ten-Day Composite Images: Surface Parameters for more information on the original data product that this is based on.

Image Specifications

Each image is 66 pixels by 60 lines and contains no leading header bytes. Each pixel in the image is represented by two bytes. Byte swapping may be necessary to use the data on your system. If the data appear to be out of the range 0 to 20000, Use the following UNIX command to swap the bytes:

```
dd if=in_file conv=swab of=out_file
```

The DN for each pixel can be converted to NDVI with the following equation:

```
NDVI = (DN/10000) - 1
```

The following images represent the average FASIR-NVDI (unsmoothed) for the following 10-day compositing periods.

NDVI Maps, 10 by 5 minutes
94-04-11_ndvi.img (April 11-21, 1994)
94-04-21_ndvi.img (April 21-31, 1994)
94-05-01_ndvi.img (May 1-10, 1994)
94-05-11_ndvi.img (May 11-20, 1994)
94-05-21_ndvi.img (May 21-31, 1994)
94-06-01_ndvi.img (June 1-10, 1994)
94-06-11_ndvi.img (June 11-20, 1994)
94-06-21_ndvi.img (June 21-31, 1994)
94-07-01_ndvi.img (July 1-10, 1994)
94-07-11_ndvi.img (July 11-20, 1994)
94-07-21_ndvi.img (July 21-31, 1994)
94-08-01_ndvi.img (Aug 1-10, 1994)
94-08-11_ndvi.img (Aug 11-20, 1994)
94-08-21_ndvi.img (Aug 21-31, 1994)
94-09-01_ndvi.img (Sep 1-10, 1994)

The Pixel-Area Image

The file "0_pixel_area_10by5min.img" is an image that provides the area for each of the 10 by 5 minute cells. The area for each pixel is given in hectares. One hectare equals 10,000 square meters.

Each pixel value is represented as a 2-byte integer. This image has the low-order byte first. On some systems, the bytes may need to be swapped in order the read the 2-byte integers correctly. On UNIX systems, this can be done with the following command.

```
dd if=input_file_name conv=swab of=output_file_name
```

Spatial Coverage

These data cover the same area as the regional meteorological parameters assembled by Val Pauwels. The data are in a straight latitude/longitude grid. The BOREAS grid coordinates listed below are simply given for reference purposes. The corner coordinates are identical to the upper left corner of Val's regional data set.

Corner	X	Y	Longitude	Latitude
Upper Left	242.697	675.191	107°00'00.00" W	57°00'00.00" N
Upper Right	903.583	765.939	96°00'00.00" W	57°00'00.00" N
Lower Left	274.686	119.043	107°00'00.00" W	52°00'00.00" N
Lower Right	1022.683	221.752	96°00'00.00" W	52°00'00.00" N

The X and Y coordinates listed above are the BOREAS grid coordinates which are based on an Albers Equal Area Conic (AEAC) projection with the following parameters:
Origin: 111.00 deg W, 51.00 deg N
Standard Parallels: 52.5 deg N, 58.5 deg N
Units of Measure: kilometers

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Document Information:

dsp10_ndvi

Document Revision Date:

27-Sept-2001 (citation revised on 30-Oct-2002)

Document Review Date:

27-Sept-2001

Document Curator:

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Document URL:

http://daac.ornl.gov/BOREAS/FollowOn/guides/dsp10_ndvi_maps.html

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