

BOREAS FOLLOW-ON DSP-10 RECLASSIFIED REGRIDDED TM MOSAIC LAND COVER MAPS,
1994

[Get Data](#)

Summary:

These images were produced by aggregating a reclassified version of the 30-m land cover Thematic Mapper classification by CCRS and are now available at multiple resolutions (10x5 minutes, and 30 minutes). These data were regrided for use by the BOREAS Follow-on Carbon and Hydro-Meteorological modeling groups. Characteristics of the individual products are described below.

Maps included in this data set:

[Regridded Reclassed TM Mosaic Land Cover Maps, 10 by 5 minutes](#)

[Regridded Reclassed TM Mosaic Land Cover Maps, 30 min](#)

Data Citation:

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

Hall, F., G. Rapalee, and D. Knapp. 2001. BOREAS Follow-On DSP-10 Reclassified RegridDED TM Mosaic Land Cover Maps, 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 Reclassed TM Mosaic Land Cover Maps, 10 by 5 minutes

These images were produced by aggregating a reclassified version of the 30-m land cover Thematic Mapper classification by CCRS to a 10' (horizontal) by 5' (vertical) pixel size in a straight latitude/longitude grid. We lumped the CCRS classes into groups that are more uniform with respect to carbon flux and that can be more easily parameterized within the models. Each class in the "lumped" taxonomy is grouped by age, nutrient status, crown density, and forest type. This results in the groups where we rank-ordered the classes as follows: classes 1 and 2 are low nutrient cycling; classes 3, 4, 5 are high, moderate, and low carbon accumulation classes, respectively. See the document [dsp01_tm_landcover_doc.html](#) 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 one byte. The DN value for each pixel is the percentage of the coverage that pixel that is of a given class. The sum of all of the percentages in the various images might not be 100 for a given pixel because of rounding.

Land Cover Maps, 10 by 5 minutes
01_wet_conf_low_10by5min.img
02_wet_conf_med_10by5min.img
03_dry_conf_low_10by5min.img
04_dry_conf_med_10by5min.img
05_dry_conf_high_10by5min.img
06_decid_low_10by5min.img
07_decid_med_10by5min.img
08_decid_high_10by5min.img
09_mixed_med_10by5min.img
10_mixed_high_10by5min.img
11_burn_10by5min.img
12_grassland_10by5min.img
13_other_10by5min.img
14_water_10by5min.img

An additional image is included for which the DN value for each pixel is the percentage of the coverage of the CCRS mosaic in that pixel:

class00_10by5min.img

The class numbers correspond to the class numbers used by CCRS in their classification (in parentheses). See CCRS documentation for complete description.

CCRS Land Cover Classification	
Class ID	Class Name
Class 00	Percent of data coverage area of image
Class 01	Wet conifer, low density (43, 55)
Class 02	Wet conifer, medium density (25)
Class 03	Dry conifer, low density (59)
Class 04	Dry conifer, medium density (22, 32)
Class 05	Dry conifer, high density (7, 11, 21)
Class 06	Deciduous, low density (99)
Class 07	Deciduous, medium density (80)
Class 08	Deciduous, high density (79)
Class 09	Mixed, medium density (36)
Class 10	Mixed, high density (39, 53, 69, 64)
Class 11	Burn (13, 35, 81, 112, 113, 134)
Class 12	Grassland (85)
Class 13	Other (150, 160, 161, 162)
Class 14	Water (1)

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 to 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

Regridded Reclassified TM Mosaic Land Cover Maps, 30 min These images were produced by aggregating a reclassified version of the 30-m land cover Thematic Mapper classification by CCRS to a 0.5 degree by 0.5 degree (or 30' by 30') pixel size in a straight latitude/longitude grid. We lumped the CCRS classes into groups that are more uniform with respect to carbon flux and that can be more easily parameterized within the models. Each class in the "lumped" taxonomy is grouped by age, nutrient status, crown density, and forest type. This results in the groups where we rank-ordered the classes as follows: classes 1 and 2 are low nutrient cycling; classes 3, 4, 5 are high, moderate, and low carbon accumulation classes, respectively. See the document [dsp01_tm_landcover_doc.html](#) for more information on the original data product that this is based on.

Image Specifications

Each image is 22 pixels by 10 lines and contains no leading header bytes. Each pixel in the image is represented by one byte. The DN value for each pixel is the percentage of the coverage in that pixel that is of a given class. The sum of all of the percentages in the various images might not be 100 for a given pixel because of rounding. The following files contain the percentage of each class within each 0.5 deg by 0.5 deg pixel:

Land Cover Maps, 30 minutes

01_wet_conf_low_30min.img
02_wet_conf_med_30min.img
03_dry_conf_low_30min.img
04_dry_conf_med_30min.img
05_dry_conf_high_30min.img
06_decid_low_30min.img
07_decid_med_30min.img
08_decid_high_30min.img
09_mixed_med_30min.img
10_mixed_high_30min.img
11_burn_30min.img
12_grassland_30min.img
13_other_30min.img
14_water_30min.img

An additional image is included for which the DN value for each pixel is the percentage of the coverage of the CCRS mosaic in that pixel:

00_30min.img

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