

About the ascii ice concentration grids

Trained ice observers at the U.S. National Ice Center produce daily grid files using satellite images as well as other sources of data. These files are large (1024 x 1024 cells), including both land (-1) and water/ice (ice cover percentage, from 0-100).

File formats are not uniform in format or time through the database. From the 1970's through 1990's, ascii grids were produced approximately twice per week. NOAA-GLERL's ice cover database includes ascii grids from the Canadian Ice Service (1972-1988) and the U.S. National Ice Center (1989-present). The NIC files combine Canadian and US data. Starting with 2011, NIC provides a daily ascii grid. There are daily interpolation ascii grids available for the entire time period.

Filenames

g19730116c

g: file processed at NOAA-GLERL

1973: year

0116: month, day (Jan 16)

c: CIS (Canadian Ice Service – source of data)*

g19901228u

g: file processed at NOAA-GLERL

1990: year

1228: month, day (Dec 28)

u: U.S. NIC (National Ice Center – source of data)*

* Note: starting with 2003 files, there is no source designation; all files originate at the U.S. National Ice Center, but both U.S. and Canadian data are included in these files since 1989.

File Formats

1972 – 2006

510 x 516 (510 records, each line has 516 grid cells in i3 format; 6 line header)

Ice concentration code: -1 = land; 0-100 = fraction of grid cell covered by ice, expressed as a percent.

Latitude and Longitude coordinates of the center of each grid cell is given in the following fixed format text files: Latgrid.zip and Longrid.zip. Each record is 516(f9.5,1x)

Downloading the original data from NIC

Ascii grids are available from the NIC website:

http://www.natice.noaa.gov/products/great_lakes.html

Fill in the date range and select the following options from drop-down menus:

Area: Great Lakes

Category: Ice Analysis Grid

Format: ASCII

(‘ASCII’ must be selected when you hit the submit button for the results to be shown.)

You will notice that each date yields three different ASCII files. The appropriate choice is the one that ends with ‘_1800.asc’