

Aufeises (naleds) of the North-East of Russia: GIS catalogue for the Indigirka River basin (Russia)

The GIS database contains the combination of historical data on aufeises (naleds) distribution and their characteristics for the Indigirka River basin from two sources. Historical data origins from the Cadastre of naleds of the North-East of the USSR published in 1958. Other sources are Landsat images for the period 2013-2017.

The database includes:

1. The characteristics of aufeises from the Cadastre of naleds of the North-East of the USSR (1958). The data are stored in file Aufeis_Kadastr.txt

Original version:

OBJECTID	Index number
Auf_Topo_K	Aufeis area (km ²) from the Cadastre (1958). If the data was missing, the area was calculated by topographic maps (1980) scale 1: 200 000
kadastr	Index of the aufeis in the Cadastre (1958) (it contains 0 if the aufeis was missing in the Cadastre, but found in the topographic map (1980) scale 1: 200 000)
kad_map_nu	Index of the Cadastre (1958) map
topo	Presence of the aufeis at topographic map (0 – missing, 1 – present)
kad_map	Presence of the aufeis in the Cadastre (0 – missing, 1 – present)
toponumber	Nomenclature of the topographic map sheet
data	Date of fixing the presence of ice within the aufeis
X_geo	Longitude, degree
Y_geo	Latitude, degree
Altitude	Height above sea level (determined by Aster GDEM), m
comment	Comments (mainly typos in the Cadastre map, or the method of determining aufeis area)
PolygonID	Index of aufeis by Landsat images (if aufeis is not at the images, the value is missing)
Polygon_di	Minimum distance between the aufeis from the Cadastre and the same aufeis from Landsat image (m)

Suggestions for enhancing the self explanation skills of the attribute names:

OBJECTID	Index number
aufeis data source	Consider to add one general group assignment for this full data set (useful if both data sets are visualized, e.g. in google earth) e.g. aufeis from cadastre
aufeis area cadastre sqkm	Aufeis area (km ²) from the Cadastre (1958). If the data was missing, the area was calculated by topographic maps (1980) scale 1: 200 000
aufeis index cadastre	Index of the aufeis in the Cadastre (1958) (it contains 0 if the aufeis was missing in the Cadastre, but found in the topographic map (1980) scale 1: 200 000)
cadastre index	Index of the Cadastre (1958) map
aufeis_in_topo	Presence of the aufeis at topographic map (0 – missing, 1 – present)
aufeis_in_map	Presence of the aufeis in the Cadastre (0 – missing, 1 – present)
toponumber	Nomenclature of the topographic map sheet
date	Date of fixing the presence of ice within the aufeis
Long	Longitude, degree
Lat	Latitude, degree
elevation	Height above sea level (determined by Aster GDEM), m

comment	Comments (mainly typos in the Cadastre map, or the method of determining aufeis area)
cross index	cross index of aufeis derived from Landsat (if aufeis is not in Landsat, the value is missing)
distance_m	Minimum distance between the aufeis from the Cadastre and the same aufeis from Landsat image (m)

2. The characteristics of aufeises from Landsat images (2013-2017). The data are stored in file Aufeis_Landsat.txt

Original version:

OBJECTID	Index number
WRS2ID	The Landsat scene identifier in the WRS2 graph of the US Geological Survey (USGS). The first three digits indicate the column number, the last three digits represent the line number.
Date	The date of image
Comment	Additional information, for example, if the aufeis was partly covered by clouds and additional images were used to estimate the area
ID	Identifier of aufeis by Landsat images (key field for the reference to the Cadastre data=PolygonID)
Area_km	Aufeis area by Landsat image, km ²

Suggestions for enhancing the self explanation skills of the attribute names

OBJECTID	Index number
aufeis data source	Consider to add one general group assignment for this full data set (useful if both data sets are visualized, e.g. in google earth) e.g. aufeis from Landsat
Landsat_WRS2ID	The Landsat scene identifier in the WRS2 graph of the US Geological Survey (USGS). The first three digits indicate the column number, the last three digits represent the line number.
Landsat_date	The date of image
Comment	Additional information, for example, if the aufeis was partly covered by clouds and additional images were used to estimate the area
cross index	Identifier of aufeis by Landsat images (key field for the reference to the Cadastre data=PolygonID)
aufeis_area_sqkm	Aufeis area by Landsat image, km ²
Add elevation	

Example of a snapshot visualization of aufeis data and attribute names in google earth

