Permafrost Map of Alaska, USA, Version 1

USER GUIDE

How to Cite These Data

As a condition of using these data, you must include a citation:

Ferrians, O 1998. *Permafrost Map of Alaska*, USA, Version 1. [Indicate subset used]. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. https://doi.org/10.7265/x4fx-9m44. [Date Accessed].

FOR QUESTIONS ABOUT THESE DATA, CONTACT NSIDC@NSIDC.ORG

FOR CURRENT INFORMATION, VISIT https://nsidc.org/data/GGD320

National Snow and Ice Data Center

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1 IDENTIFICATION_INFORMATION

Citation Information
Originator: **U.S. Geological Survey EROS Alaska Field Office**
Publication_Date: **19961210**
Title: **Permafrost map of Alaska**
Geospatial_Data_Presentation_Format: **map**
Publication_Information
Publication_Place: **Anchorage, Alaska**
Publisher: **U.S. Geological Survey EROS Alaska Field Office**
Online_Linkage: **http://agdcwww.wr.usgs.gov/agdc/agdc.html**
Scale_Denominator: **2,500,000**
Description
Abstract:
This dataset consists of a georeferenced digital map and attribute data derived from the publication "Permafrost map of Alaska". The map is presented at a scale of 1:2,500,000 and shows the correlation of physiographic province to presence of permafrost across the state of Alaska.
Purpose:
The digital data were prepared under the U.S. Geological Survey Global Change Program, Land Data Systems - Arctic Land Processes Studies for display and analysis of terrain.
Supplemental_Information:
Procedures_Used
The linework was captured by hand digitizing the source map, Ferrians, O.J., 1965, Permafrost map of Alaska: U.S. Geological Survey Miscellaneous Geologic Investigations Map I-445. Scale 1:2,500,000.
The digital map was assembled and edited in ARC/INFO. The source map projection is polyconic. It is based on the Clarke 1866 ellipsoid with a central meridian of 150 W longitude. The data were georeferenced from digitizer coordinates to the polyconic projection and then projected into an Albers Equal Area projection. The coastline was taken from the U.S. Geological Survey, 1:2,000,000 scale Digital Line Graph data (U.S. Geological Survey, 1987). Attributes for the permafrost map were assigned.
Metadata documentation was completed in 1996.
Revisions:
This is the first digital version of the permafrost dataset.
Other_References_Cited:
Ferrians, O.J., 1965, Permafrost map of Alaska: U.S. Geological Survey Miscellaneous Geologic Investigations Map I-445. Scale 1:2,500,000.
Time_Period_of_Content
Range_of_Dates/Times

```
        Beginning_Date:        1965
        Ending_Date:   0
      Currentness_Reference:
        The creation date for the digital data is unknown.  Documentation
of the
        data occurred in 1996.
   Status
      Progress:Complete
      Maintenance_and_Update_Frequency
      Maintenance and update of the dataset will be performed as needed.
   Spatial_Domain
     Bounding_Coordinates
     West_Bounding_Coordinate:         157.4567
     East_Bounding_Coordinate:         -117.2995
     North_Bounding_Coordinate:                67.5777
     South_Bounding_Coordinate:                49.1643
   Keywords
     Theme
        Theme_Keyword_Thesaurus: None
        Theme_Keyword:  permafrost, map, Alaska
     Place
        Place_Keyword_Thesaurus: None
        Place_Keyword:  Alaska
   Access_Constraints:
         None
   Use_Constraints:
        The U.S. Geological Survey should be acknowledged as the data
source in
        products derived from these data.  The data are general in nature
and should
        not be used at a scale larger than 1:2,500,000,that of the
original map.  The
        use of these data is not restricted and may be interpreted by
organizations,
        agencies, units of government or others; however,they are
responsible for its
        appropriate application.  Digital data files are periodically
updated.  Files
        are dated and users are responsible for obtaining the latest
revisions of the
        data.  Although these data have been processed successfully on a
computer system at
        the U.S. Geological Survey, no warranty expressed or implied is
made by the
        agency regarding the utility of the data on any other system, nor
shall the act
        of distribution constitute any such warranty.
   Point_of_Contact:
      Contact_Information
         Contact_Organization_Primary
            Contact_Organization:    U.S. Geological Survey EROS Alaska
Field Office
            Contact Person:
          Contact Position:
          Contact Address
            Address_Type:     mailing and physical address
            Address:          4230 University Drive
            City:             Anchorage
```

State_or_Province: **Alaska**
Postal_code: **99508-4664**
Country: **USA**
Contact_Voice_Telephone: **(907) 786-7020**
Contact_Facsimile_Telephone: **(907) 786-7036**
Contact_Electronic_Mail_Address:
webmaster@agdcwww.wr.usgs.gov
Hours_of_Service: **Monday - Friday, 8-5, Alaska Standard Time**
Native_Data_Set_Environment:
Arc/Info version 7.0.3,
Pathname =

2 DATA_QUALITY_INFORMATION

Attribute_Accuracy
Attribute_Accuracy_Report:
See Entity_Attribute_Information
Quantitative_Attribute_Accuracy_Assessment
Attribute_Accuracy_Value: **See Explanation**
Attribute_Accuracy_Explanation:
Attribute accuracy is described, where present, with each attribute defined in the Entity and Attribute Section.
Logical_Consistency_Report:
Polygon and chain-node topology present.
Completeness_Report
A map unit is an area defined and named in terms of its physiographic character.
Each map unit differs with respect to all others and is given a unique code indi
its association with permafrost. The basis of the actual compositon and
interpretation of the units is unknown.
Positional_Accuracy
Horizontal_Positional_Accuracy
Horizontal_Positional_Accuracy_Report:
The horitional positional accuracy of the province boundaries is unknown.
Quantitative_Horizontal_Positional_Accuracy_Assessment:
Horizontal_Positional_Accuracy_Value: **unknown**
Horizontal_Positional_Accuracy_Explanation: **Resolution as reported**
Vertical_Positional_Accuracy
Vertical_Positional_Accuracy_Report:
The vertical positonal accuracy of the permafrost layer is unknown.
Lineage
Source_Information
Source_Citation
Citation_Information
Originator: **Ferrians, O.J.**
Publication_Date: **1965**
Title: **Permafrost map of Alaska**
Geospatial_Data_Presentation_Form: **map**
Publication_Information
Publication_Place: **Reston, VA**
Publisher: **U.S. Geological Survey**
Source_Scale_Denominator: **2,500,000**

Type_of_Source_Media: **Unknown**
Source_Time_Period_of_Content
Time_Period_Information
Single_Date/Time
Calendar_Date: **1965**
Source_Currentness_Reference: **Publication Date**
Source_Citation_Abbreviation
Source_Contribution:
The data set was derived from this source.
Process_Step
Process_Description:
Hard-copy map was hand digitized by personnel at the USGS EROS Alaska Field Office.

3 SPATIAL_DATA_ORGANIZATION_INFORMATION:

Direct_Spatial_Reference_Method: **Vector**
Point_and_Vector_Object_Information
SDTS_Terms_Description
SDTS_Point_and_Vector_Object_Type: **Point**
Point_and_Vector_Object_Count: **813**
SDTS_Point_and_Vector_Object_Type: **String**
Point_and_Vector_Object_Count: **1316**
SDTS_Point_and_Vector_Object_Type: **GT-polygon composed of chains**
Point_and_Vector_Object_Count: **814**

4 SPATIAL_REFERENCE_INFORMATION

Horizontal_Coordinate_System_Definition
Planar
Map_Projection:
Map_Projection_Name: **ALBERS**
Longitude_of_Central_Meridian: **-154**
Latitude_of_Projection_Origin: **50**
Latitude_of_First_Standard_Parallel: **55**
Latitude_of_Second_Standard_Parallel: **65**
False_Easting: **0.00000**
False_Northing: **0.00000**
Geodetic Model
Horizontal_Datum_Name:
Ellipsoid_Name: **Clarke 1866**
Semi-major_Axis: **6,378,206.4**
Denominator_of_Flattening: **294.98**

5 ENTITY_AND_ATTRIBUTE_INFORMATION

Detailed_Description
Entity_Type
Entity_Type_Label: **PERMAFROST.PAT**
Entity_Type_Definition: **Physiographic province and presence of permafrost across Alaska**
Entity_Type_Definition_Source: **Ferrians, O.J., 1965, Permafrost map of Alaska**

```
    Attribute:
        Attribute_Label: -
        Attribute_Definition: Physiographic province and presence of
permafrost across Alaska
        Attribute_Definition_Source: Ferrians, O.J., 1965, Permafrost map
of Alaska
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value: State of Alaska
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label: AREA
        Attribute_Definition:Area of poly/region in square coverage units
        Attribute_Definition_Source: Computed
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Positive real numbers
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label: PERIMETER
        Attribute_Definition:Perimeter of poly/region in coverage units
        Attribute_Definition_Source:Computed
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Positive real numbers
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label:PERMAFROST#
        Attribute_Definition:Internal feature number
        Attribute_Definition_Source:Computed
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Sequential unique positive
integer
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
   Attribute:
        Attribute_Label:PERMAFROST-ID
        Attribute_Definition:User-assigned feature number
        Attribute_Definition_Source:User-defined
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Integer
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label:PERMAFROST
        Attribute_Definition:Code for Physiographic province
        Attribute_Definition_Source:Ferrians, O.J., 1965, Permafrost map
of Alaska
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:11,12,13,21,22,23,24,25,31
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
```

```
    Entity_Type
    Entity_Type_Label:PERMAFROST.AAT
    Entity_Type_Definition:Attribute table of PERMAFROST.
    Entity_Type_Definition_Source:Ferrians, O.J., 1965, Permafrost map of
Alaska
    Attribute:
        Attribute_Label: -
        Attribute_Definition:Attribute table of PERMAFROST.
        Attribute_Definition_Source:Ferrians, O.J., 1965, Permafrost map
of Alaska
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value: -
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label:FNODE#
        Attribute_Definition:Internal number of from-node
        Attribute_Definition_Source:Computed
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Sequential unique positive
integer
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label:TNODE#
        Attribute_Definition:Internal number of to-node
        Attribute_Definition_Source:Computed
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Sequential unique positive
integer
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label:LPOLY#
        Attribute_Definition:Internal number of poly to left of arc
        Attribute_Definition_Source:Computed
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Sequential unique positive
integer
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label:RPOLY#
        Attribute_Definition:Internal number of poly to right of arc
        Attribute_Definition_Source:Computed
        Attribute_Domain_Values
            Enumerated_Domain
                Enumerated_Domain_Value:Sequential unique positive
integer
                Enumerated_Domain_Value_Definition
                Enumerated_Domain_Value_Definition_Source:
    Attribute:
        Attribute_Label:LENGTH
        Attribute_Definition:Length of arc in coverage units
```

Attribute_Definition_Source:**Computed**
Attribute_Domain_Values
Enumerated_Domain
Enumerated_Domain_Value:**Positive real numbers**
Enumerated_Domain_Value_Definition
Enumerated_Domain_Value_Definition_Source:
Attribute:
Attribute_Label:**PERMAFROST#**
Attribute_Definition:**Internal feature number**
Attribute_Definition_Source:**Computed**
Attribute_Domain_Values
Enumerated_Domain
Enumerated_Domain_Value:**Sequential unique positive integer**
Enumerated_Domain_Value_Definition
Enumerated_Domain_Value_Definition_Source:
Attribute:
Attribute_Label:**PERMAFROST-ID**
Attribute_Definition:**User-assigned feature number**
Attribute_Definition_Source:**User-defined**
Attribute_Domain_Values
Enumerated_Domain
Enumerated_Domain_Value:**Integer**
Enumerated_Domain_Value_Definition
Enumerated_Domain_Value_Definition_Source:
Overview_Description
Entity_and_Attribute_Overview
Map units are closed polygons that are generalized in shape and size. They are defined in terms of their physiographic characteristics and association with permafrost. Each unit differs with respect to all other units and is uniquely identified as shown on the table below.

11 Mountainous Area underlain by continuous permafrost
12 Mountainous Area underlain by discontinuous permafrost
13 Mountainous Area underlain by isolated masses of permafrost
21 Lowland and Upland Area underlain by thick permafrost
22 Lowland and Upland Area underlain by moderately thick to thin permafrost
23 Lowland and Upland Area underlain by discontinuous permafrost
24 Lowland and Upland Area underlain by numerous isolated masses of permafrost
25 Lowland and Upland Area underlain by isolated masses of permafrost
26 Lowland and Upland Area generally free of permafrost

6 DISTRIBUTION_INFORMATION

Distributor
Contact_Information
Contact_Organization_Primary
Contact_Organization: **U.S. Geological Survey EROS Alaska Field Office**
Contact_Person:
Contact_Position:

```
     Contact_Address
       Address_Type:   mailing and physical address
       Address:                4230 University Drive
       City:                   Anchorage
       State_or_Provence:      Alaska
       Country:                USA
     Contact_Voice_Telephone:          (907) 786-7020
     Contact_Facsimile_Telephone:      (907) 786-7036
     Hours_of_Service: Monday - Friday, 8-5, Alaska Standard Time
   Distribution_Liability:     Users must assume responsibility to
determine the usability of
                               this data for their purposes.
```

7 METADATA_REFERENCE_SECTION

```
Metadata_Date: 19961223
Metadata_Contact
  Contact_Information
    Contact_Organization_Primary
       Contact_Organization:  U.S. Geological Survey EROS Alaska Field
Office
       Contact_Person:        Cathy Baxter
    Contact_Address
       Address_type: mailing and physical address
       Address:                4230 University Drive
       City:                   Anchorage
       State_or Provence:      Alaska
       Country:                USA
    Contact_Voice_Telephone:          (907) 786-7020
    Contact_Facsimile_Telephone:      (907) 786-7036
    Contact_Electronic_Mail_Address:  webmaster@agdcwww.wr.usgs.gov
    Hours_of_Service:         Monday - Friday, 8-5, Alaska Standard Time
Metadata_Standard_Name:FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: 19940608
```

Last modified: 96-12-23.15:20:01.Mon Last modified on October 08, 1997.

8 DOCUMENT INFORMATION

8.1 Publication Date

October 08, 1997

8.2 Date Last Updated

January 24, 2021