

Landslide Incidence and Susceptibility



Tags
Landslides

Identification_Information:

Citation:

Citation_Information:

Originator: Jonathan W. Godt

Publication_Date: 200102

Title:

Landslide Incidence and Susceptibility in the Conterminous United States

Geospatial_Data_Presentation_Form: Vector digital data

Series_Information:

Series_Name: U.S. Geological Survey Open-File Report

Issue_Identification: 97-289

Publication_Information:

Publication_Place: Reston, VA

Publisher: U.S. Geological Survey

Other_Citation_Details:

These data were originally published as: Godt, J.W., 1997, Digital Representation of Landslide Overview Map of the Conterminous United States: U.S. Geological Survey Open-File Report 97-289, scale 1:4,000,000. Available online at

<http://landslides.usgs.gov/html_files/landslides/nationalmap/national.html>
Online_Linkage: <<http://nationalatlas.gov/atlasftp.html>>

Description:

Abstract:

These data are a digital version of U.S. Geological Survey Professional Paper 1183, Landslide Overview Map of the Conterminous United States. The map and digital data delineate areas in the conterminous United States where large numbers of landslides have occurred and areas which are susceptible to landsliding. Because the data are highly generalized, owing to the small scale and the scarcity of precise landslide information for much of the country, they are unsuitable for local planning or actual site selection. This National Atlas data set was previously distributed as Digital Representation of the Landslide Overview Map of the Conterminous United States.

Purpose:

These data are intended for geographic display and analysis at the national level, and for large regional areas. The data should be displayed and analyzed at scales appropriate for 1:4,000,000-scale data. No responsibility is assumed by the U.S. Geological Survey in the use of

these data.

Supplemental_Information:

The purpose of this data set is to give the user a general indication of areas that may be susceptible to landsliding. It is not suitable for local planning or site selection.

More information on the USGS National Landslides Hazards Program is available at <<http://www.landslides.usgs.gov/index.html>>.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2001

Currentness_Reference: Publication date

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -125

East_Bounding_Coordinate: -66

North_Bounding_Coordinate: 50

South_Bounding_Coordinate: 24

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Landslides

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: United States

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

Access_Constraints: None

Use_Constraints:

None. Acknowledgment of the National Atlas of the United States of America and (or) the U.S. Geological Survey would be appreciated in products derived from these data.

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Lynn Highland

Contact_Organization:

U.S. Geological Survey, National Landslide Information Center

Contact_Position: Director

Contact_Address:

Address_Type: Mailing address

Address: MS 966 Denver Federal Center Box 25046

City: Denver

State_or_Province: CO

Postal_Code: 80225

Country: USA

Contact_Voice_Telephone: 800-654-4966

Contact_Facsimile_Telephone: 303-273-8600

Contact_Electronic_Mail_Address: highland@usgs.gov

Contact_Instructions: e-mail is the preferred method of contact

Data_Set_Credit:

Damon Sather and Jonathan Godt performed the laborious task of integrating the thematic data with the National Atlas coastline data.

Native_Data_Set_Environment:

Windows NT Version 4.0 (Build 1381) Service Pack 6; ESRI Arc/INFO 8.0.2.405 (ESRI QFE 802p1d 08/31/2000)

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

The data are accurate, within visible tolerances, to the original manuscripts.

Logical_Consistency_Report:

Digital data were visually inspected and agree with the original manuscripts.

Completeness_Report:

This data set is an overview of landsliding in the conterminous United States. The data are thematic and general in nature. There is no intention to fully describe the extent of landsliding in the conterminous United States.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

No tests for horizontal accuracy have been performed on this data set.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: D.H. Radbruch-Hall

Originator: R.B. Colton

Originator: W.E. Davies

Originator: Ivo Lucchitta

Originator: B.A. Skipp

Originator: D.J. Varnes

Publication_Date: 1982

Title: Landslide Overview Map of the Conterminous United States

Geospatial_Data_Presentation_Form: Map

Series_Information:

Series_Name: U.S. Geological Survey Professional Paper

Issue_Identification: 1183

Publication_Information:

Publication_Place: Washington, DC

Publisher: U.S. Geological Survey

Source_Scale_Denominator: 3,750,000

Type_of_Source_Media: Stable-base material

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1982

Source_Currentness_Reference: Publication date

Source_Citation_Abbreviation: LSOVER

Source_Contribution: Spatial and attribute information

Source_Information:

Source_Citation:

Citation_Information:

Originator: U.S. Geological Survey

Publication_Date: 1999

Title: State Boundaries of the United States

Geospatial_Data_Presentation_Form: Map

Publication_Information:

Publication_Place: Reston, VA

Publisher: U.S. Geological Survey

Source_Scale_Denominator: 2,000,000
Type_of_Source_Media: Online
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 1972
Ending_Date: 1999
Source_Currentness_Reference: Ground condition
Source_Citation_Abbreviation: Coastlines
Source_Contribution: Spatial and attribute information

Process_Step:
Process_Description:
Landslide incidence and susceptibility polygons were digitized from the original stable-base manuscripts at 1:3,750,000 from U.S. Geological Survey Professional Paper 1183.

Source_Used_Citation_Abbreviation: LSOVER
Process_Date: 1997
Process_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Jonathan W. Godt
Contact_Organization: U.S. Geological Survey
Contact_Address:
Address_Type: Mailing address
Address: MS 966 Denver Federal Center Box 25046
City: Denver
State_or_Province: CO
Postal_Code: 80225
Country: USA
Contact_Voice_Telephone: 303-273-8626
Contact_Facsimile_Telephone: 303-273-8600
Contact_Electronic_Mail_Address: jgodt@usgs.gov
Contact_Instructions: e-mail is the preferred method of contact

Process_Step:
Process_Description:
Polygons were closed along the coastline using the National Atlas coastline file. Minor revisions were made to spatial and attribute information in consultation with one of the original authors (D.J. Varnes).

Source_Used_Citation_Abbreviation: Coastlines
Process_Date: 2000

Process_Step:
Process_Description:
Sliver polygons along State lines were eliminated by merging the polygons with the appropriate larger polygon to which they belonged. Adjacent polygons with the same descriptor of landslide incidence and susceptibility (inc_sus) were merged. Interior State lines were deleted and the attribution was checked. A value of 'no-data' was applied to water areas such as Puget Sound and the Great Lakes.

Process_Date: 2000

Process_Step:
Process_Description:
Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands were removed from the file.

Process_Date: 2001

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: GT-polygon composed of chains

Point_and_Vector_Object_Count: 2813

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.000278

Longitude_Resolution: 0.000278

Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

Horizontal_Datum_Name: North American Datum of 1983

Ellipsoid_Name: GRS1980

Semi-major_Axis: 6378137.000000

Denominator_of_Flattening_Ratio: 298.257222

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label:

Landslide susceptibility and incidence polygons (described by Isoverp020.dbf)

Entity_Type_Definition: Landslide incidence and susceptibility

Entity_Type_Definition_Source:

U.S. Geological Survey Professional Paper 1183

Attribute:

Attribute_Label: Shape

Attribute_Definition: The representation of the entity in the data.

Attribute_Definition_Source: U.S. Geological Survey

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: polygon

Enumerated_Domain_Value_Definition: 2-dimensional element

Enumerated_Domain_Value_Definition_Source: ESRI GIS software

Attribute:

Attribute_Label: Area

Attribute_Definition: The size of the shape in coverage units.

Attribute_Definition_Source: U.S. Geological Survey

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0.000

Range_Domain_Maximum: 618.453

Attribute:

Attribute_Label: Perimeter

Attribute_Definition: The perimeter of the shape in coverage units.

Attribute_Definition_Source: U.S. Geological Survey

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0.008

Range_Domain_Maximum: 1515.642

Attribute:

Attribute_Label: Lsoverp020

Attribute_Definition: Internal feature number.

Attribute_Definition_Source: U.S. Geological Survey

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 2

Range_Domain_Maximum: 2814

Attribute:

Attribute_Label: Inc_sus

Attribute_Definition:

A descriptor of landslide incidence and susceptibility.

Attribute_Definition_Source: U.S. Geological Survey

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: combo-hi

Enumerated_Domain_Value_Definition:

High susceptibility to landsliding and moderate incidence.

Enumerated_Domain_Value_Definition_Source:

U.S. Geological Survey Professional Paper 1183

Enumerated_Domain:

Enumerated_Domain_Value: high

Enumerated_Domain_Value_Definition:

High landslide incidence (more than 15% of the area is involved in landsliding).

Enumerated_Domain_Value_Definition_Source:

U.S. Geological Survey Professional Paper 1183

Enumerated_Domain:

Enumerated_Domain_Value: low

Enumerated_Domain_Value_Definition:

Low landslide incidence (less than 1.5 % of the area is involved in landsliding).

Enumerated_Domain_Value_Definition_Source:

U.S. Geological Survey Professional Paper 1183

Enumerated_Domain:

Enumerated_Domain_Value: mod

Enumerated_Domain_Value_Definition:

Moderate landslide incidence (1.5 - 15% of the area is involved in landsliding).

Enumerated_Domain_Value_Definition_Source:

U.S. Geological Survey Professional Paper 1183

Enumerated_Domain:

Enumerated_Domain_Value: no-data

Enumerated_Domain_Value_Definition: No data exist for these areas.

Enumerated_Domain_Value_Definition_Source:

U.S. Professional Paper 1183

Enumerated_Domain:

Enumerated_Domain_Value: sus-high

Enumerated_Domain_Value_Definition:

High susceptibility to landsliding and low incidence.

Enumerated_Domain_Value_Definition_Source:

U.S. Geological Survey Professional Paper 1183

Enumerated_Domain:

Enumerated_Domain_Value: sus-mod

Enumerated_Domain_Value_Definition:

Moderate susceptibility to landsliding and low incidence.

Enumerated_Domain_Value_Definition_Source:

U.S. Geological Survey Professional Paper 1183

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization:

Earth Science Information Center, U.S. Geological Survey

Contact_Address:

Address_Type: Mailing address

Address: 507 National Center

City: Reston

State_or_Province: VA

Postal_Code: 20192

Contact_Voice_Telephone: 1-888-ASK-USGS (1-888-275-8747)

Contact_Voice_Telephone: 703-648-5920

Contact_Instructions:

In addition to the address above there are other ESIC offices throughout the country. A full list of these offices is at

<http://mapping.usgs.gov/esic/esic_index.html>.

Distribution_Liability:

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 U.S. Geological Survey regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. No responsibility is assumed by the U.S. Geological Survey in the use of these data.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: ESRI Shapefile

Digital_Transfer_Option:

Online_Option:

Computer_Contact_Information:

Network_Address:

Network_Resource_Name:

<<http://nationalatlas.gov/atlasftp.html>>

Digital_Transfer_Option:

Offline_Option:

Offline_Media: CD-ROM

Recording_Format: tar

Digital_Form:

Digital_Transfer_Information:

Format_Name: SDTS

Digital_Transfer_Option:

Online_Option:

Computer_Contact_Information:

Network_Address:

Network_Resource_Name:

<<http://nationalatlas.gov/atlasftp.html>>

Digital_Transfer_Option:

Offline_Option:

Offline_Media: CD-ROM

Recording_Format: tar

Fees:

There is no charge for the online option. For National Atlas files ordered on CD-ROM there is a base price of \$45 per disc, a handling fee of \$5, and a per-file charge based on file size. The charge for files less than 10 megabytes in size is \$1. The charge for files that range in size from 10 to 150 megabytes is \$7.50. The charge for files of 150 megabytes or larger is \$15. The charge is \$1.00 for the Landslide Incidence and Susceptibility in the Conterminous United States data set.

Ordering_Instructions:

To order files on CD-ROM, please see

<<http://nationalatlas.gov/atlasftp.html#q12>>.

Metadata_Reference_Information:

Metadata_Date: 20020904

Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Peg Rawson

Contact_Organization: U.S. Geological Survey

Contact_Address:

Address_Type: Mailing address

Address: 521 National Center

City: Reston

State_or_Province: VA

Postal_Code: 20192

Contact_Voice_Telephone: 703-648-4183

Contact_Electronic_Mail_Address: atlasmail@usgs.gov

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Security_Information:

Metadata_Security_Classification_System: None

Metadata_Security_Classification: Unclassified

Metadata_Security_Handling_Description: None