UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Cincinnati Landslide Database: A 5 1/4-inch diskette containing a digital database for 1970-1979 occurrences of damaging landslides in a Cincinnati, Ohio, study area. The format is an ASCII file tabulating UTM coordinate pairs for the centers of 100-meter cells and a 1 or 0 code for whether one or more damaging landslides occurred or did not occur in each cell during the period of record.

By

Richard L. Bernknopf, Russell H. Campbell,
David S. Brookshire, and Carl D. Shapiro

Open-File Report
90-256

DISCLAIMER

The database was assembled for research purposes, and no guarantee (expressed or implied) is made by the authors or the U.S. Geological Survey regarding accuracy of positions or completeness of the record of landslide occurrences.

This report is preliminary and has not been reviewed for conformity with the U.S. Geological Survey editorial standards.

Reston, Virginia
April, 1990

NOTE FOR THE MONTHLY LIST

OF90-256A,B Cincinnati Landslide Database by R.L. Bernknopf, R.H. Campbell, D.S. Brookshire, and C.D. Shapiro

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(The following text is reproduced on the accompanying diskette
as the ASCII file, README)

CINCINNATI LANDSLIDE DATABASE

by
Richard L. Bernknopf, Russell H. Campbell,
David S. Brookshire, and Carl D. Shapiro

The accompanying ASCII file was taken from digital working files used in a USGS research study on probabilistic landslide hazard mapping (Bernknopf and others, 1988). The positional accuracy is not constrained by field-checking or other calibration to U.S. Geological Survey standards and accuracy. The coordinates identify the centers of 100-meter square cells within a study area bounded by the following corners (coordinates are Universal Transverse Mercator meters; UTM Grid Zone 16):

1. Northwest corner: Easting; Northing: 700,000E; 4,337,000N
2. Southwest corner: Easting; Northing: 700,000E; 4,326,500N
3. Southeast corner: Easting; Northing: 720,000E; 4,326,500N
4. Northeast corner: Easting; Northing: 720,000E; 4,337,000N

The southwest corner serves as the origin for the grid of 100-meter cells within the study area. Within the rectangular frame, however, the set of cells containing data is truncated on the south by the Ohio River; no coordinates are listed for the cells that lie south of the north bank of the river.

The first column in the file designates by 0 or 1 whether a damaging landslide occurred in the cell identified by the coordinate pair during the period 1970-1979; a "1" indicates that one or more damage-causing landslides occurred in the cell, and a "0" indicates that no landslide damage was reported for the cell during that same period. The second column lists the easting and the third column lists the northing of the coordinate pair used to identify the center of the cell.

Partial listing of SLDUTM.ASC
showing the three columns:

Landslide (0=no, 1=yes)	Easting (UTM)	Northing (UTM)
0	700050.00	4330650.00
0	700050.00	4330750.00
0	700050.00	4330850.00
0	700050.00	4330950.00

The original damage estimates were made and assembled by staff engineers for the City of Cincinnati and Hamilton County. These data, for which locations were listed by street address, were provided to the USGS in 1981 as text listings. Additional notes on landslide areas large enough to affect more than one cell were obtained in consultations with engineers from the County and City staffs. The listings were compared with a street guide and the information was transfered to 1:24,000-scale USGS topographic quadrangle maps by inspection. A transparent grid was laid over the paper maps to determine the coordinates of cells having landslide damage. The procedures for transfer of data from street-address listing to a digital format with map coordinate pairs to identify location offers multiple sources for errors in position to occur.

Only damaging landslides were recorded; there was no attempt to inventory landslides that may have occurred in areas where no damage resulted. Therefore, the data base is neither complete nor comprehensive. However, it has served its research purpose, the development of a probability model (see Bernknopf and others, 1988).

REFERENCE

Bernknopf, R. L., Campbell, R. H., Brookshire, D. S., and Shapiro, C. D., 1988, A probabilistic approach to landslide hazard mapping in Cincinnati, Ohio, with applications for economic evaluation: Bulletin of the Association of Engineering Geologists, v. 25, no.1, p. 39-56