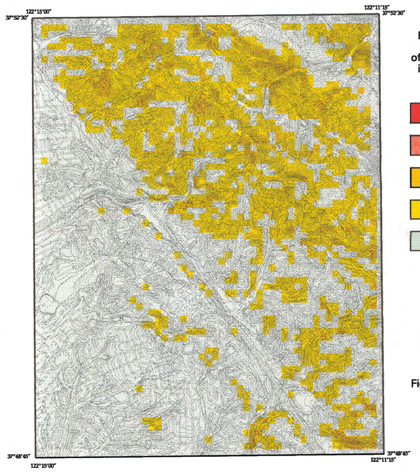
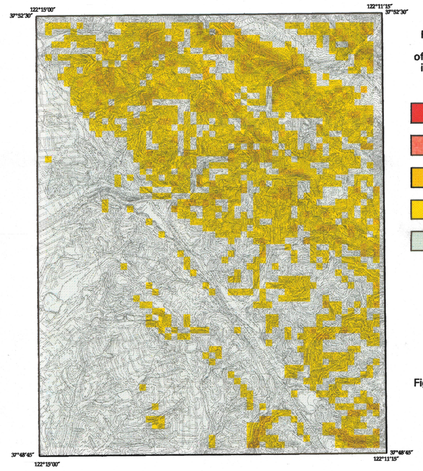


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	0 Cells
8.0 - 12.0%,	0 Cells
2.0 - 8.0,	150 Cells
0.2 - 2.0%,	1, 165 Cells
<0.2%,	2, 212 Cells

Hour 1

Figure 13. A

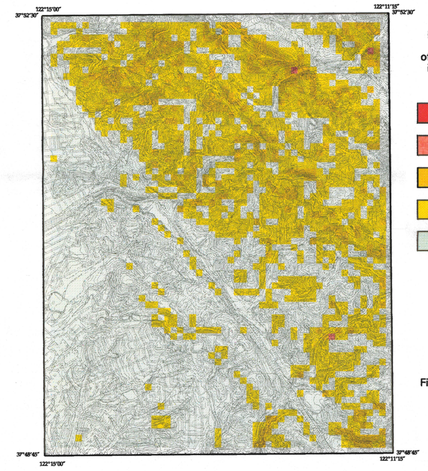


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	0 Cells
8.0 - 12.0%,	0 Cells
2.0 - 8.0,	239 Cells
0.2 - 2.0%,	1, 178 Cells
<0.2%,	2, 110 Cells

Hour 4

Figure 13. B

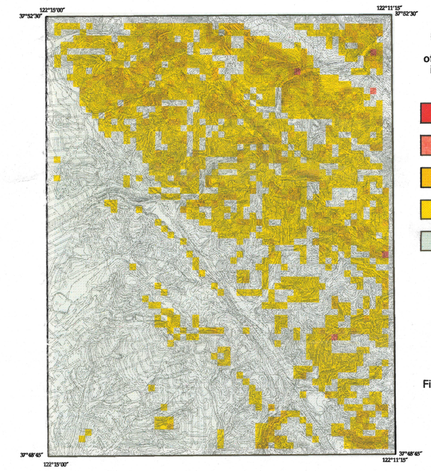


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	0 Cells
8.0 - 12.0%,	3 Cells
2.0 - 8.0,	286 Cells
0.2 - 2.0%,	1, 179 Cells
<0.2%,	2, 059 Cells

Hour 8

Figure 13. C

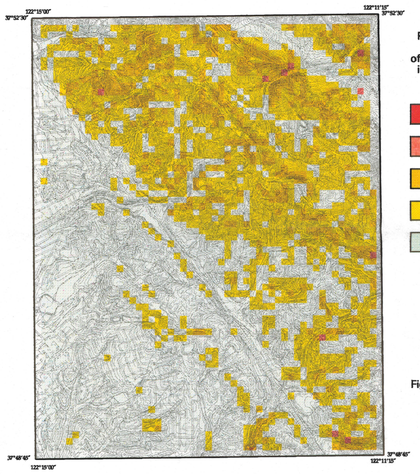


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	0 Cells
8.0 - 12.0%,	5 Cells
2.0 - 8.0,	315 Cells
0.2 - 2.0%,	1, 167 Cells
<0.2%,	2, 040 Cells

Hour 12

Figure 13. D

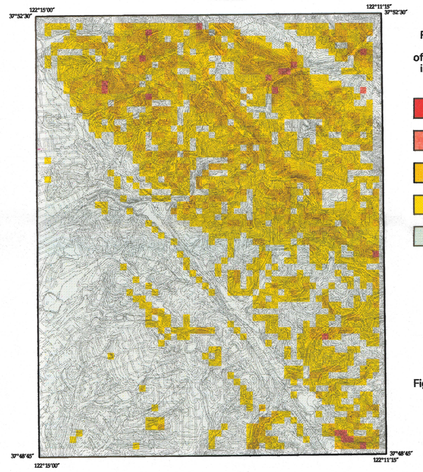


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	0 Cells
8.0 - 12.0%,	10 Cells
2.0 - 8.0,	372 Cells
0.2 - 2.0%,	1, 169 Cells
<0.2%,	1, 9766Cells

Hour 16

Figure 13. E

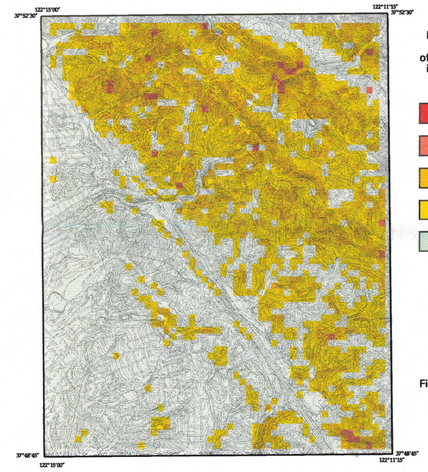


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	0 Cells
8.0 - 12.0%,	20 Cells
2.0 - 8.0,	463 Cells
0.2 - 2.0%,	1, 139 Cells
<0.2%,	1, 905 Cells

Hour 20

Figure 13. F

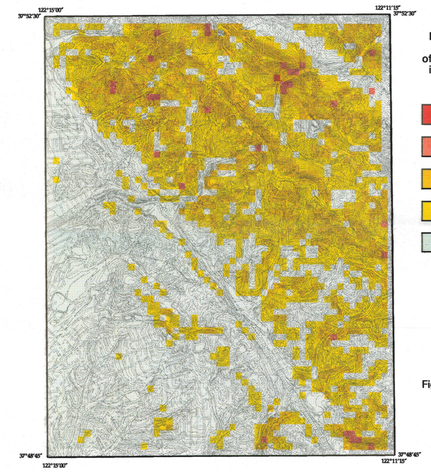


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	0 Cells
8.0 - 12.0%,	28 Cells
2.0 - 8.0,	564 Cells
0.2 - 2.0%,	1. 092 Cells
<0.2%,	1, 843 Cells

Hour 24

Figure 13. G

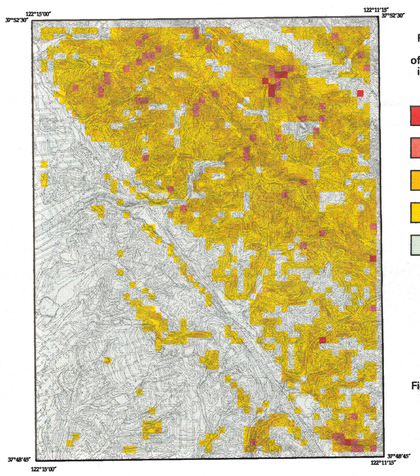


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	1 Cells
8.0 - 12.0%,	31 Cells
2.0 - 8.0,	592 Cells
0.2 - 2.0%,	1, 074 Cells
<0.2%,	1, 829 Cells

Hour 28

Figure 13. H

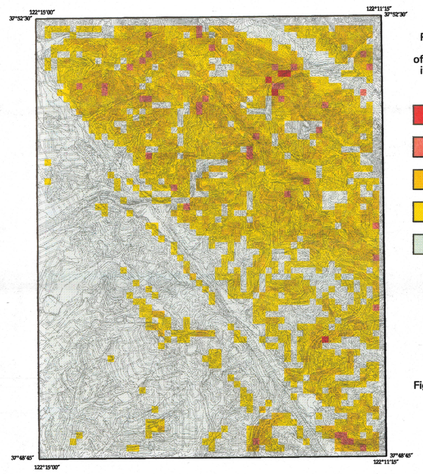


Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	9 Cells
8.0 - 12.0%,	57 Cells
2.0 - 8.0,	702 Cells
0.2 - 2.0%,	1, 018 Cells
<0.2%,	1, 741 Cells

Hour 32

Figure 13. I



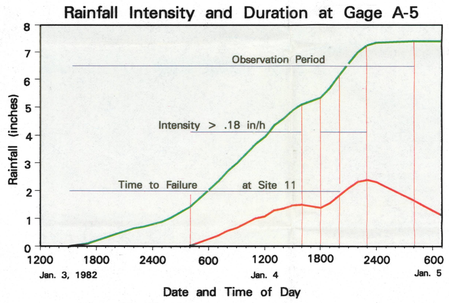
Predicted conditional probability (from hazard function) of initiating a soil slip-debris flow in a cell in the hour indicated.

Percent	Number of Cells
>12%,	5 Cells
8.0 - 12.0%,	42 Cells
2.0 - 8.0,	644 Cells
0.2 - 2.0%,	1, 038 Cells
<0.2%,	1, 798 Cells

Hour 36

Figure 13. J

Figure 5. Gage record A-5, a gage in Alameda County in the southwestern quarter of the Oakland East quadrangle, showing (1) cumulative storm rainfall curve (green) and period of observation specified by it, and (2) cumulative rainfall index curve (red) which provides a measure of CRI at the end of each time increment used to calculate probability from the hazard function. (Also shows time to failure at nearby site 11.) Used in calculating probabilities for maps of the northwest 1/4 of the Oakland East 7.5' quadrangle.



SCALE 1:40000

1 .5 0 1 2 3 MILES

1 .5 0 1 2 3 KILOMETERS

0 1 2 3 4 5 6 7 THOUSAND FEET

Note: Map data for northwest quarter of the Oakland East, 7.5' quad. UTM projection, Zone 10

Open-File Report 94-699 consists of two map sheets and an explanatory text, with additional illustrations, describing the derivation of the probability model and its application in the NW 1/4 of the Oakland East quadrangle.

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or the North American Stratigraphic Code. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U. S. Government.

CHANGES IN PREDICTED SOIL SLIP-DEBRIS FLOW PROBABILITY WITH TIME, RECONSTRUCTED FOR STORM OF JAN. 3-5,1982

by R. H. Campbell, R. L. Bernknopf, and D. R. Soller