

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LOMA PRIETA, CALIFORNIA, EARTHQUAKE  
A COLLECTION OF VIDEO IMAGES  
Videotape Log

by  
Doug Prose

Open-File Report # 90-12-A  
with accompanying videotapes  
Open-File Report # 90-12-B

1990



### SUMMARY

This video production does not attempt to tell a story. Rather, it is a loosely-edited collection of images related to the Loma Prieta Earthquake of October 17, 1989 that were videotaped by the U.S. Geological Survey.

*Loma Prieta, California, Earthquake - A Collection of Video Images* was originally filmed on Ampex 197 U-matic videotape, using a Sony DXC-M7K camera and a Sony VO-6800 U-Matic Portable recorder. The original tapes were edited onto a U-Matic Master, using a Time-Base Corrector and monitoring equipment. The Master was then transferred to a SMPTE time-coded, 1-inch Duplication Master for distribution.

Copies of this tape are available in all formats, with or without time-code, from Videotransform, Inc., 2450 Embarcadero Way, Palo Alto, Ca. 94303. Phone: (415) 494-1529.

For further information, contact the producer, Doug Prose, U.S. Geological Survey, 345 Middlefield Road, Mail Stop 225, Menlo Park, California 94025. Phone: (415) 329-4164.

### ACKNOWLEDGEMENTS

The producer is grateful to the following people for making this unplanned project possible: George Hargrove and Graham Gilbertson provided administrative and financial support; Bill Updegrave provided low-level aircraft services; John Nakata, Charles Meyer, Linnea Larsen, and Howard Wilshire assisted with filming; Barbara Del Pino-Ebert interviewed Spanish-speaking citizens in south Santa Cruz County.

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

# LOMA PRIETA, CALIFORNIA, EARTHQUAKE A COLLECTION OF VIDEO IMAGES

## VIDEOTAPE LOG

U.S. Geological Survey Open File Report # 90-12-A

Produced by: Doug Prose  
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Administrative Division  
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*Footage acquired October and November, 1989.  
Videotape edited December, 1989.*

### TIME

### DESCRIPTION OF SCENES

*Photography by Doug Prose, USGS Menlo Park, except where noted:  
# Footage shot by Steve Walter, USGS Menlo Park.*

min:sec

0:00	Title and disclaimer.
0:46	Loma Prieta Mountain, several miles east of quake epicenter in the Santa Cruz Mountains.
1:03	Quake epicenter region, looking northwest towards Monterey Bay from the western flank of Loma Prieta Mountain.
1:13	Quake epicenter region, looking southeast towards Loma Prieta Mountain (highest peak) from Lighthouse Point in Santa Cruz.
1:21	Golden Gate Bridge, San Francisco.
1:29	Powell St. cablecar, San Francisco.
1:37	Marina District, San Francisco.
1:52	Bay Bridge, western span.
2:00	Aerials of downtown San Francisco and Candlestick Park.
2:51	Bay Area Rapid Transit (BART) train.
3:04	Aerials of Oakland (Hayward Fault in background).
3:43	Aerials of Bay Bridge, eastern span.
3:55	Drum helicorder recording earthquake at U.S.G.S. Menlo Park.
4:09	Aerials of damaged Bay Bridge, morning after earthquake.
4:38	Aerials of collapsed Cypress Section of I-880, Oakland.
5:40	<i>fade to black</i>
5:42	Front Gate, USGS Western Region Headquarters, Menlo Park, Ca.
5:47	Interview with Tom Holzer, USGS Geologist, about quake-response.
6:06	# USGS personnel planning strategy on evening of quake.
6:20	Dan Ponti and Ken Lajoie, USGS Geologists, looking for fault ruptures in the Santa Cruz Mountains.
7:09	USGS staff working on quake studies at Menlo Park.
7:39	Interview with Dallas Peck, USGS Director, about earthquakes.
8:22	Interview with Malcolm Clark, USGS Geologist, about looking for ruptures.
9:13	Ralph Haugerud, USGS Geologist.
9:29	Offset roads - left-lateral cracks, on Morrill and Summit Roads.
10:26	Television crews at large crack on the Tranbarger property, Summit Rd.
10:44	Interview with Harry Fuller, KGO-TV News Director, about readiness of news crews in the event of disasters.
10:57	KGO-TV, San Francisco newsroom.

- 11:20 Interview with Carol Ivy, KGO-TV Reporter "reporters are conduits".  
11:39 Geologists in the field, 1 - 4 days after earthquake.  
12:27 Interview with Andre Sarna-Wojcicki, USGS Geologist, about large crack.  
12:42 Large crack on Tranbarger property - several views.  
13:39 Interview with Mr. & Mrs. Tranbarger, about earthquake.  
14:00 Carol Prentice and Malcolm Clark, USGS geologists, searching for ruptures near Summit Road.  
14:38 Malcolm Clark talks with Summit Rd. residents about earthquake.  
14:46 Summit Road resident: saw earth crack through Summit Store.  
15:21 Summit Road resident: "initial boom, then everything went".  
15:30 Summit Road resident: curved ladder.  
15:36 Morrill Road resident and friend (2 young girls) tell about quake.  
16:11 Summit Road residents: "there's going to be another one".  
16:39 Summit Road resident: his tools were sucked into crack.  
17:40 Geologist explains shearing of well casing near Summit Rd.  
18:04 Summit Road residents: Two women on horses - horses were spooked.  
18:34 Carol Prentice and Malcolm Clark (USGS) mapping ruptures.  
19:10 Malcolm Clark talks about working with aerial photos.  
19:59 Carol and Malcolm mapping ruptures in redwood forest.  
21:19 Press Conference, USGS Menlo Park, October 21.  
21:37 Pat Jorgensen, USGS Public Affairs Officer, addresses media.  
22:04 USGS Scientists Tom Holzer, Bill Bakun, and Will Prescott interact with media.  
23:39 Cypress Structure, I-880, near Oakland - scenes of collapse (voice of Tom Holzer explaining collapse).  
25:37 Jet taking off at San Francisco International Airport.  
26:00 Interview with David Wilson, Ass't Public Affairs Officer, SFO, about quake damage at airport.  
27:00 Marina District, October 18- scenes of damage.  
27:45 Interview with John Tinsley, USGS Geologist, about liquefaction.  
27:56 Sand Boils on "The Green" and in Harbor parking lot, Marina District.  
28:23 Cracking due to liquefaction, Marina District.  
28:40 San Francisco Mayor Art Agnos (on left) and national news Anchorman Tom Brokaw in Marina District day after quake.  
29:03 Marina District damage.  
30:30 Damaged houses (2) on Blue Ridge Road, near Boulder Creek.  
31:28 Interview with Rebecca Drive (near Boulder Creek) resident who was inside badly damaged home during earthquake.  
32:32 Interview with Gary Griggs, University of California, Santa Cruz Professor of Earth Sciences.  
33:15 Damaged houses (3) on Blue Ridge Road.  
33:40 Damaged house, separated from foundation, on Rebecca Drive.  
33:50 Pacific Garden Mall, Santa Cruz - damaged businesses.  
34:26 Rescue crews searching for victims on Mall, when 5.2 aftershock occurs.  
34:44 Search dog searching for victims in collapsed Ford's Department Store.  
34:55 Highway 1 bridge collapse, near Watsonville.  
35:16 Army Corps of Engineer Inspector explains collapse.  
35:41 Red Cross Shelter, Pajaro (near Watsonville).  
36:01 Interview with Red Cross Shelter Manager (Alfalfa), about operations.  
36:20 Shelter activities, people collecting donated food and clothing.  
36:48 Damaged houses (4) in Watsonville.  
37:03 Tent city, Red Cross Shelter in Ramsay Park, Watsonville.  
37:21 Interview with Spanish-speaking man, with little girl - in tent city.  
37:33 Interview with Spanish-speaking young couple, inside tent.  
37:45 Interview with Red Cross Shelter Manager about tent city.

38:08 Landslide on Highway 17 (largest one near Laurel Road Cutoff).  
38:16 Interview with William Brown, USGS Geologist, about landsliding.  
38:52 Landslide on Hwy. 17, by Summit Road overpass.  
39:11 Small slide on coastal bluff, on Highway 1 near Pescadero State Park.  
39:31 Earth slumps off of Del Monte Avenue, near quake epicenter.  
39:53 Rain-puddle by slide on Blue Ridge Road.  
40:08 Landslide across Old San Jose-Soquel Road, near quake epicenter.  
40:22 Reid Fisher, USGS Geologist, recording crack orientations on Summit Rd.  
41:19 Interview with Ralph Haugerud, USGS Geologist, about hazards  
of surveying road cracks.  
41:57 Aerial of fallen tower at St. Joseph's Seminary, Santa Clara.  
42:05 Damage at Maryknoll Convent, Santa Clara.  
42:22 Damaged houses and businesses in Los Gatos.  
42:52 Interview with Steve Ellen, USGS Geologist, about 'tent structures' in  
Los Gatos, and their relation to larger geologic picture.  
43:07 Buckled sidewalks and roads in Santa Clara County, due to  
compressional stresses during quake.  
43:21 Telemetry Room, USGS Menlo Park - incoming signals from seismometers  
deployed in field are processed here.  
44:06 Seismometer - close-up view.  
44:20 Don Ritchey, Electronic Specialist on contract to USGS, explains  
operation of seismometers.  
44:46 Deployment of seismometer in redwood forest by Chuck Gilbert, USGS  
Seismic Instrument Field Technician.  
46:24 Steve Walter, USGS Seismologist, explains Helicorders at Menlo Park.  
46:46 California Seismic Network computer processing room, Menlo Park.  
47:05 Computer graphic of earthquake and aftershock locations, by Fred Klein  
and Steve Walter, USGS Seismologists.  
47:12 Interview with Michael Rymer, USGS Geologist, about nail arrays and  
post-quake ground-slippage in epicenter region.  
47:38 Nail array measurements by Michael Rymer and assistant.  
48:29 Interview with Allan Lindh, USGS Seismologist, about fault-segmentation.  
49:00 Interview with Bob Wallace, USGS Geologist (retired), about quake studies.  
49:52 Interview with Peter Ward, USGS Seismologist, about quake studies.  
50:18 1906 San Francisco Earthquake damage.  
50:59 Two women walk on rupture with 16-feet of offset during the 1906 quake -  
site is along Earthquake Trail, Point Reyes National Seashore.  
51:09 Interview with Bill Kockleman, USGS Land-Use Planner, about success  
of recent laws concerning seismic safety.  
51:58 Bob Wallace (USGS) talks about the risks of living in earthquake country.  
53:21 END