The original documents are located in Box 13, folder "Earthquake Prediction and Preparations" of the John Marsh Files at the Gerald R. Ford Presidential Library.

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THE WHITE HOUSE
DATE: £.25-76
TO: Jack Month
FROM: Max L. Friedersdorf
Please handle
Please see me
For your information
Other I don't Think we
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really be over the
dashboard. (Page 2)

THE WHITE HOUSE WASHINGTON

August 24, 1976

MEMORANDUM FOR:

GUY STEVER

JIM MITCHELL

CHARLIE LEPPERT

ART QUERN LYNN MAY

FROM:

GLENY SCHLEEDE

SUBJECT:

EARTHQUAKE MEMORANDUM

We must go forward with an information memo on earthquakes early on Wednesday, August 25.

Accordingly, may we have your corrections and comments on the attached draft by 9:30 a.m. on Wednesday. Please have them telephoned to Dennis Barnes at 456-2126.

Thanks for your help. Sorry for the short turn-around.

WASHINGTON

August 25, 1976

MEMORANDUM FOR:

THE PRESIDENT

FROM:

JIM CANNON

SUBJECT:

EARTHQUAKE PREDICTION

AND PREPARATIONS

Jack Marsh has asked that we bring you up to date on recent activities with respect to earthquakes. Accordingly, this memorandum summarizes:

- . Increased public and Congressional concerns.
- . Pending legislation
- . Executive branch actions and activities
- . Next steps

Increased Concerns

Over the past few months, the public and the Congress have become increasingly concerned about earthquakes because:

- . Information released last December by the U.S. Geological Survey indicated that significant movement had occured over the past 15 years along a 100 mile portion of the San Andreas Fault north of Los Angeles (the "Palmdale Uplift).
- . New public claims have eminated from the scientific community that we are on the verge of being able to predict earthquakes.
- . In May 1976, a California Institute of Technology professor reported that a major earthquake in the Los Angeles area was possible within a year.
- During the past year, major destructive earthquakes have occured in China, Guatemala, Italy and the Philippines -- seen by some as a potential worldwide earthquake pattern.

Congressional Action

The Congress has acted on earthquake legislation -- pushed primarily by members of the California delegation. Specifically:

- In May 1976, the Senate passed a bill sponsored by Senator Cranston(S. 1174) which would (a) direct the President to establish a "coordinated earthquake hazard reduction program" to reduce disruption and loss of life and property, and (b) authorize \$150 million over three years, mostly for increased research by NSF and the Geological Survey.
- . On August 10, 1976, the House Science and Technology Committee ordered reported an amended version of S. 1174 which:
 - Establishes a new Office of Earthquake Hazards Reduction --to be located in the Executive Office of the President until a "home" is found for it by the President in some existing agency.
 - Establishes two new statutory earthquake advisory committees.
 - Calls for launching a "National Earthquake Hazards Reduction Program," consisting of (a) expanded research on prediction, damage reduction and related economic and social issues, and (b) planning and implementing of all aspects of a comprehensive earthquake program.
 - Requires the President to specify the responsibilities of some 12 agencies that have earthquake related activities, and conduct an annual "unified" review of the overall program.
 - Authorizes \$92 million over three years.

Administration witnesses have testified against the bills in both the House and Senate on grounds that sufficient authority already exists to carry out Federal responsibilities with respect to earthquakes.

Our current assessment is that (a) both bills are undesirable—particularly the House bill which calls for a major new program and creates three new organizations prior to the completion of any satisfactory delineation of the problem to be addressed, (b) the House bill may well be on your desk before the end of the session unless some extraordinary steps are taken to slow it down, (c) a veto of the bill will be difficult to justify publicly.

Earthquake Related Actions Taken by the Executive Branch

During the past 9 months, the following actions have been taken:

. Your 1977 Budget eliminated any funding for civil defense activities relating to natural hazards. Instead such

activities were limited to nuclear war preparations.

- In April, you approved reprogramming of \$2.6 million for monitoring the uplift near Los Angeles. These funds are in addition to about \$20 million already in your Budget for NSF and Geological Survey earthquake research and prediction.
- . You directed Dr. Stever to review current Federal earthquake research and prediction program and provide information needed to consider increased earthquake research funding in your 1978 Budget. An interagency group and an outside advisory group established by Dr. Stever will soon recommend options for increasing earthquake R&D in 1978 by \$19 million to \$66 million above the current \$20 million level.
- . The Federal Disaster Assistance Administration (FDAA) of HUD delegated to the Geological Survey responsibility under the Federal Disaster Relief Act of 1974 for:
 - preparing to issue earthquake warnings.
 - providing assistance to state and local governments to issue warnings to the public. (No funds available for this.)
- . The FDAA retains responsibility for:
 - providing assistance to states for earthquake disaster preparation planning.
 - providing post-disaster assistance in the form of low-interest loans.

Next Steps

Thus far, our review of earthquake matters has indicated that:

- . The ability to predict earthquakes accurately -- in terms of date, location and intensity -- is not as near at hand as some had thought.
- Despite this, we are not in a very good position to demonstrate that the Administration has taken all the actions that could reasonably be expected with respect to earthquakes. In fact, responsibilities are fragmented and

no comprehensive review has been undertaken to (a) identify and define the problems to be addressed, and (b) assign responsibilities. (This situation helps explain our inability to head off the legislation now moving in the Congress.

- . No one has really thought through what the economic, social and legal problems would be if an when the capability exists to predict earthquakes some days or weeks in advance.
- . We are relying heavily on State and local Governments and the private sector to prepare for earthquakes, but:
 - those governments are not well prepared to carry out their responsibilities, and
 - recent events appear headed in the direction of forcing a greater Federal role and responsibility.

We have assumed that Federal responsibility is limited largely to R&D, planning assistance, warnings and post disaster loans; and that the state and local governments and private sector are responsible for post-prediction activities including warnings to the public, planning, zoning, building standards, insurance and dealing with virtually all economic, social and legal problems.

In view of our findings thus far, I have established an Ad Hoc Domestic Council group -- with participation from appropriate agencies -- to assess in more detail the current Federal authority and programs relating to earthquakes, identify problems requiring attention, and recommend necessary actions for your consideration.

Both OMB and Dr. Stever have concurred in this action and will participate in the work of the Ad Hoc Group.

I will keep you informed of progress.

THE WHITE HOUSE

WASHINGTON

August 25, 1976

MEMORANDUM TO: JACK MARSH

FROM:

SUBJECT:

REPORT ON EARTHQUAKE ISSUES

Attached is the report you requested for the President regarding earthquake prediction and preparation.

Let me know if you think we need anything more at this time.

Jim Cannon cc: Jim Lynn

Max Friedersdorf Glenn Schleede

Lynn May

Dick Allison



materials. Please contact the Gerald R. Ford Presidential Library for access to

Some items in this folder were not digitized because it contains copyrighted

these materials.

Donna -

Thanks.

Trudy



THE WHITE HOUSE

WASHINGTON

N Mesto INFORMATION

MEMORANDUM FOR:

JIM CANNON A BOOK

FROM: '

SUBJECT:

EARTHOUAKE PREDICTION AND PREPARATIONS

Jack Marsh has asked that we bring you up-to-date on recent activities with respect to earthquakes. Accordingly, this memorandum summarizes:

Increased public and Congressional concerns.

Pending legislation.

Executive Branch actions and activities.

Next steps.

Increased Concerns

Over the past few months, the public and Congress have become increasingly concerned about earthquakes because:

- Information released last December by the U.S. Geological Survey indicated that significant movement had occurred over the past 15 years along a 100 mile portion of the San Andreas Fault north of Los Angeles (the "Palmdale Uplift").
- New public claims have emanated from the scientific community that we are on the verge of being able to predict earthquakes.
- In May 1976, a California Institute of Technology professor reported that a moderate earthquake in the Los Angeles area was possible within a year.
- During the past year, major destructive earthquakes have occurred in China, Guatemala, Italy and the Philippines -- seen by some (incorrectly) as a potential worldwide earthquake pattern.

Pending Legislation

The Congress has acted on earthquake legislation -- pushed primarily by members of the California delegation. Specifically:

- In May 1976, the Senate passed a bill sponsored by Senator Cranston (S. 1174) which would (a) direct the President to establish a "coordinated earthquake hazard reduction program" to reduce disruption and loss of life and property, and (b) authorize an additional \$150 million over three years, mostly for increased research by NSF and the Geological Survey.
- On August 10, 1976, the House Science and Technology Committee ordered reported an amended version of S. 1174 which:
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 - Establishes two new statutory earthquake advisory committees.
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 - Requires the President to specify the responsibilities of some 12 agencies that have earthquake related activities, conduct an annual "unified" review of the overall program budget, and submit an annual report.
 - Authorizes an additional \$92 million over three years.

Administration witnesses have testified against the bills in both the House and Senate on grounds that we are already reassessing earthquake R&D needs and sufficient authority already exists to carry out Federal responsibilities with respect to earthquakes. This opposition has not slowed the bills.

Our current assessment is that (a) both bills are undesirable -particularly the House bill which calls for a major new
program and creates three new organizations prior to the
completion of any satisfactory delineation of the problem
to be addressed, (b) the House bill may well be on your
desk before the end of the session unless some extraordinary steps are taken to slow it down, and (c) a veto



of the bill will be difficult to justify publicly.

Earthquake-Related Actions Taken by the Executive Branch

During the past 9 months, the following actions have been taken:

- . Your 1977 Budget eliminated any funding for civil defense activities relating to natural hazards. Instead, such activities were limited to nuclear war preparations.
- . In April, you approved reprogramming of \$2.6 million for monitoring the uplift near Los Angeles. These funds are in addition to about \$20 million already in your Budget for NSF and Geological Survey earthquake research and prediction.
- earthquake research and prediction programs and provide information needed to consider increased earthquake research funding in your 1978 Budget. An interagency group and an outside advisory group established by Dr. Stever will soon recommend options for increasing earthquake R&D in 1978 from \$19 million to \$66 million above the current \$20 million level.
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 - providing assistance to states for earthquake disaster preparation planning.
 - providing post-disaster assistance in the form of low-interest loans.

Next Steps

Thus far, our review of earthquake matters has indicated that:

. The ability to predict earthquakes accurately -- in terms of date, location and intensity -- is not as near at hand as some had thought. Responsible claims now are that the capability may be available "within a decade."

- When Dr. Stever completes his work in the next few weeks, we will be in good shape to deal with earthquake R&D questions.
- Activities are underway in other earthquake-related areas, principally by the FDAA. (For example, FDAA officials are now in California conferring with state and local people on earthquake preparedness matters.) However, we have not assured ourselves or made a convincing case publicly that we are taking all necessary actions with respect to earthquakes beyond R&D. In fact, responsibilities are fragmented and no comprehensive review has been undertaken since 1969 to (a) identify and define the problems to be addressed, and (b) assign responsibilities. (This situation helps explain our inability to head off the legislation now moving in the Congress.)
- Relatively little thought has been given to the economic, social and legal problems that might result if and when the capability exists to predict earthquakes some days, weeks or months in advance.
- . We are relying heavily on state and local governments and the private sector to prepare for earthquakes, but:
 - those governments are not well prepared to carry out their responsibilities, and
 - recent events appear headed in the direction of forcing a greater Federal role and responsibility.

We have assumed that Federal responsibility is limited largely to R&D, planning assistance, warnings and post disaster loans; and that the state and local governments and private sector are responsible for post-prediction activities including warnings to the public, planning, zoning, building standards, insurance and dealing with virtually all economic, social and legal problems.

In view of our findings thus far, I have established an Ad Hoc Domestic Council group -- with participation from appropriate agencies -- to assess in more detail the current Federal authority and programs relating to earthquakes, identify problems requiring attention, and recommend necessary actions for your consideration in the new budget and legislative program.

OMB, Dr. Stever, and HUD have concurred in this action and will participate in the work of the Ad Hoc Group.

I will keep you informed of progress.

The Violent Earth

A CCORDING TO THE GEOLOGISTS, there is nothing unusual about the round of earthquakes and volcanic activity that has recently swept the world. If there is any connection between the threatened eruption of La Soufriere in the Leeward Islands, the predicted eruption of Mauna Loa in Hawaii, and the earthquakes in China, the Phillipines and elsewhere, we do not know of it. These events the experts say, are no more than one might expect in the way of bubbling and heaving of a planet that is still a long way from having solidified. This is not to development of a reliable method of reducing the severity of an earthquake—and there are proposals now for beginning major experiments aimed at doing that—might someday save billions of dollars worth of property in Los Angeles and San Francisco. But there is no guarantee that a stepped up program will pro-

duce the desired results.

The other set of public policy questions relates to the problems that will arise if the scientists create a reasonably reliable method of predicting earthquakes. What do individuals—and governments, for