

HEB

53

Alaska State Legislature

Legislative Committees:
House Finance Committee

119 N. Cushman Street Suite 207
Fairbanks, Alaska 99701
(907) 456-8172
FAX (907) 451-9293

Legislative Budget Subcommittees:
University of Alaska
Department of Natural Resources
Department of Environmental Conservation

While in Session
State Capitol
Juneau, Alaska 99801-1182
(907) 465-4457
FAX (907) 465-3519

Representative John Davies District 29

Date March 28, 2001

To: Representative John Coghill

From: Representative John Davies

Re: Bill Scheduling - House Bill 53 "Seismic Hazards Safety
Commission"

I am requesting that HB 53 "Seismic Hazards Safety Commission," be heard in the House State Affairs Committee at the earliest possible date.

HB 53 would establish the Alaska Seismic Hazards Safety Commission. The state of Alaska is on the edge of the Pacific Plate which acts like a conveyor belt, moving about six centimeters a year, the legislature needs to create a seismic commission patterned after those in other states on major fault lines. An effort needs to be made to reduce disaster potential and increase disaster preparedness, and this bill does both.

Thank you for your consideration.



Alaska State Legislature

Legislative Committees
House Finance Committee

Legislative Budget Subcommittees:
University of Alaska
Department of Natural Resources
Department of Environmental Conservation

119 N. Cushman Street Suite 207
Fairbanks, Alaska 99701
(907) 456-0172
FAX (907) 451-9293

While in Session
State Capitol
Juneau, Alaska 99801-1162
(907) 465-4457
FAX (907) 465-3519

Representative John Davies District 29

SPONSOR STATEMENT

House Bill 53

“An act establishing the Alaska Seismic Hazards Safety Commission”

A Seismic Hazards Safety commission needs to be established to address the pressing need to provide a consistent policy framework and a means for ongoing coordination of programs and public safety practices related to seismic hazards. Currently this need is not being addressed by any continuing state government organization. The seismic Hazard Safety Commission would encourage long-term progress toward mitigating the effects of earthquakes.

Alaska is on the edge of the Pacific Plate, which acts like a relentless conveyor belt, moving about six centimeters a year. It is inevitable that there will be large earthquakes, the only question is when will they occur, not if they will occur. Although the state has made great improvements in disaster preparedness there has been little corresponding improvement in measures to reduce the disaster potential of major earthquakes and, consequently, to reduce dependence on disaster relief. Creating a seismic commission patterned after those in California, Oregon, Washington and other states on major fault lines will help address the issues. If you prepare for a major earthquake ahead of time and prepare appropriately, when the earthquake does occur less damage will result, less lives will be lost and the cost of recovery will be less.

Through ten years of experience as state seismologist I have extensive knowledge in this subject area. I have first hand experience with the difficulty of coordinating earthquake information for the university and state, federal, and municipal governments. Anchorage does have an active geo-



tech advisory commission, but the state needs to strengthen that work while broadening efforts throughout the state. A Seismic Safety Hazards Commission can provide that strength.

The scientific community is working hard on earthquake prediction, but it is not yet a reality, except in the most general sense. We can predict in a probabilistic way where earthquakes are likely to occur so we can focus resources in those areas, but in terms of knowing the date and time of occurrence of earthquakes we will not have that information for some time, if ever.

The state can mitigate possible effects of earthquakes by encouraging appropriate land use and building design so it can reduce loss of life and property, as well as the costs of recovery when earthquakes occur. It costs a lot of money to rebuild after a large earthquake and, of course there is no way to replace lost lives; so it is clearly worth spending some time and money before earthquakes occur to prepare for them. If mitigation efforts are undertaken at the time a building or subdivision is in the planning stages, the costs are relatively minor compared to retrofit or rebuilding. This commission would help our state be better prepared.

Members of the commission would be appointed by the governor to represent the university and governmental agencies, as well as members of the public who are knowledgeable in earthquake hazard mitigation. The commission would recommend to the public and governmental sector goals and priorities for reducing earthquake effects. The commission may accept grant contributions and appropriations from public agencies, private foundations, and individuals. The authority and responsibilities of other state agencies, boards, councils, commissions or local governments are not intended to transfer to the Alaska Seismic Hazards Safety Commission.

22-LS0278\C
Lauterbach
3/24/01

CS FOR HOUSE BILL NO. 53()

**IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTY-SECOND LEGISLATURE - FIRST SESSION**

BY

**Offered:
Referred:**

Sponsor(s): REPRESENTATIVES DAVIES, Hudson, Kerttula

*CS
ADOPTED IN
MJA*

A BILL

FOR AN ACT ENTITLED

1 **"An Act establishing the Alaska Seismic Hazards Safety Commission."**

2 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

3 *** Section 1.** The uncodified law of the State of Alaska is amended by adding a new section
4 to read:

5 **FINDINGS.** The legislature finds that

6 (1) although the state has made significant improvements in disaster
7 preparedness since the great earthquake of 1964, there has been little corresponding
8 improvement in measures to reduce the disaster potential of major earthquakes and,
9 consequently, to reduce dependence on disaster relief;

10 (2) there is a pressing need to provide a consistent policy framework and a
11 means for continuing coordination of programs and public safety practices related to seismic
12 hazards at all governmental levels and in the private sector; this need is not being addressed
13 by any continuing state government organization;

14 (3) through concerted efforts coordinated by a Seismic Hazards Safety
15 Commission, the state can make long-term progress toward mitigating the effects of seismic

1 hazards on persons and property, thereby reducing the costs of responding to and recovering
2 from major earthquakes.

3 * Sec. 2. AS 44.19 is amended by adding new sections to read:

4 **Article 13. Alaska Seismic Hazards Safety Commission.**

5 **Sec. 44.19.635. Commission established; membership.** (a) The Alaska
6 Seismic Hazards Safety Commission is established in the Office of the Governor. The
7 Office of the Governor shall provide staff support to the commission.

8 (b) The commission is composed of nine members appointed by the governor
9 for terms of three years. A member holds office until a successor is appointed. A
10 vacancy is filled for the unexpired term.

11 (c) The governor shall appoint to the commission

12 (1) a representative from the University of Alaska;

13 (2) a representative from local government;

14 (3) a representative from the Department of Natural Resources;

15 (4) a representative from the Department of Military and Veteran

16 Affairs;

17 (5) a representative from an appropriate federal agency;

18 (6) a representative of the insurance industry; and

19 (7) three members from members of the public who are knowledgeable
20 in the fields of geology, seismology, hydrology, geotechnical engineering, structural
21 engineering, emergency services, or planning.

22 (d) The commission shall elect annually from its members a chair and vice-
23 chair. A majority of the commission may vote to replace an officer of the
24 commission.

25 (e) Six members constitute a quorum.

26 (f) Members of the Alaska Seismic Hazards Safety Commission serve without
27 compensation but are entitled to per diem and travel expenses authorized for boards
28 and commissions under AS 39.20.180.

29 **Sec. 44.19.637. Powers and duties.** (a) The commission shall

30 (1) recommend goals and priorities for seismic hazard mitigation to the
31 public and private sectors;

1 (2) recommend policies to the governor and the legislature, including
2 needed research, mapping, and monitoring programs;

3 (3) offer advice on coordinating disaster preparedness and seismic
4 hazard mitigation activities of government at all levels, review the practices for
5 recovery and reconstruction after a major earthquake, and recommend improvements
6 to mitigate losses from similar future events;

7 (4) gather, analyze, and disseminate information of general interest on
8 seismic hazard mitigation;

9 (5) establish and maintain necessary working relationships with other
10 public and private agencies;

11 (6) review predictions and warnings issued by the federal government,
12 research institutions, and other organizations and persons and suggest appropriate
13 responses at the state and local levels; and

14 (7) review proposed seismic hazard notifications and supporting
15 information from state agencies, evaluate possible socioeconomic consequences,
16 recommend that the governor issue formal seismic hazard notifications when
17 appropriate, and advise state and local agencies of appropriate responses.

18 (b) The commission may

19 (1) advise the governor and the legislature on disaster preparedness
20 and seismic hazard mitigation and on budgets for those activities and may recommend
21 legislation or policies to improve disaster preparedness or seismic hazard mitigation;

22 (2) conduct public hearings;

23 (3) appoint committees from its membership and appoint external
24 advisory committees of ex-officio members; and

25 (4) accept grants, contributions, and appropriations from public
26 agencies, private foundations, and individuals.

27 **Sec. 44.19.639. Definitions.** In AS 44.19.635 - 44.19.639,

28 (1) "commission" means the Alaska Seismic Hazards Safety
29 Commission;

30 (2) "disaster preparedness" means establishing plans and programs for
31 responding to and distributing funds to alleviate losses from a disaster as defined in

1 AS 26.23.900;

2 (3) "seismic hazard mitigation" or "mitigation" mean activities that
3 prevent or alleviate the harmful effects of seismic hazards to persons and property,
4 including identification and evaluation of the seismic hazards, assessment of the risks,
5 and implementation of measures to reduce potential losses before a damaging event
6 occurs.

7 * Sec. 3. AS 44.66.010(a) is amended by adding a new paragraph to read:

8 (20) Alaska Seismic Hazards Safety Commission (AS 44.19.635) --
9 June 30, 2005.

10 * Sec. 4. The uncodified law of the State of Alaska is amended by adding a new section to
11 read:

12 INITIAL TERMS. Notwithstanding AS 44.19.635, enacted by sec. 2 of this Act, three
13 initial members of the Alaska Seismic Hazards Safety Commission shall serve terms of two
14 years, and three initial members shall serve terms of four years.

15 * Sec. 5. The uncodified law of the State of Alaska is amended by adding a new section to
16 read:

17 CONSTRUCTION. This Act is not intended to transfer to the Alaska Seismic
18 Hazards Safety Commission the authorities and responsibilities of other state agencies,
19 boards, councils, or commissions or of local governments.

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: 1
 Bill Version: CSHB 53(MLV)
 (H) Publish Date: 3/30/01

Revision Date/Time (Note if correction): _____ Dept. Affected: Office of the Governor
 Title: "An Act establishing the Alaska Seismic Hazards Safety Commission." BRU: Commissions and Special Offices
 Sponsor: Representatives Davies, Hudson, Kertt Component: Seismic Hazards Safety Commission
 Requester: HSCMVA Component Number: _____

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services	18.0	13.4	13.4	13.4	13.8	13.8
Travel	7.0	7.0	7.0	7.0	7.0	7.0
Contractual	8.0	8.0	8.0	8.0	8.0	8.0
Supplies	0.5	0.5	0.5	0.5	0.5	0.5
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	33.5	28.9	28.9	28.9	29.3	29.3

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()						
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FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	33.0	28.4	28.4	28.4	28.8	28.8
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	33.5	28.9	28.9	28.9	29.3	29.3

Estimate of any current year (FY2001) cost: 0.0

POSITIONS

Full-time						
Part-time	1	1	1	1	1	1
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Fiscal note assumes 1/4 time clerical staff to support commission activity as technical support needs will be met by existing staff in Department of Natural Resources; quarterly commission meetings -- 2 face-to-face and 2 teleconferenced. Travel costs reflect estimated meeting costs for 9 total commission members and one staff. Contractual reflects estimated postage, communication, advertising, and teleconference costs.

Fiscal note assumes existing departmental office space/equipment will be available for use by the part-time clerical staff position.

Prepared by: Michael A Nizich/man Phone 465-3876
 Division: Administrative Services Date/Time 1/30/01 12:30 PM
 Approved by: David Ramseur Date 01/30/2001
 Agency: Office of the Governor

For distribution information, call the Governor's Legislative Office

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Representative John Davies District 29

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House Bill 53

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Alaska is on the edge of the Pacific Plate, which acts like a relentless conveyor belt, moving about six centimeters a year. It is inevitable that there will be large earthquakes, the only question is when will they occur, not if they will occur. Although the state has made great improvements in disaster preparedness there has been little corresponding improvement in measures to reduce the disaster potential of major earthquakes and, consequently, to reduce dependence on disaster relief. Creating a seismic commission patterned after those in California, Oregon, Washington and other states on major fault lines will help address the issues. If you prepare for a major earthquake ahead of time and prepare appropriately, when the earthquake does occur less damage will result, less lives will be lost and the cost of recovery will be less.

Through ten years of experience as state seismologist I have extensive knowledge in this subject area. I have first hand experience with the difficulty of coordinating earthquake information for the university and state, federal, and municipal governments. Anchorage does have an active geo-



tech advisory commission, but the state needs to strengthen that work while broadening efforts throughout the state. A Seismic Safety Hazards Commission can provide that strength.

The scientific community is working hard on earthquake prediction, but it is not yet a reality, except in the most general sense. We can predict in a probabilistic way where earthquakes are likely to occur so we can focus resources in those areas, but in terms of knowing the date and time of occurrence of earthquakes we will not have that information for some time, if ever.

The state can mitigate possible effects of earthquakes by encouraging appropriate land use and building design so it can reduce loss of life and property, as well as the costs of recovery when earthquakes occur. It costs a lot of money to rebuild after a large earthquake and, of course there is no way to replace lost lives; so it is clearly worth spending some time and money before earthquakes occur to prepare for them. If mitigation efforts are undertaken at the time a building or subdivision is in the planning stages, the costs are relatively minor compared to retrofit or rebuilding. This commission would help our state be better prepared.

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FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: _____
 Bill Version: CSHB 53 (MLV)
 () Publish Date: _____

Revision Date/Time (Note if correction): Correction 4/19/2001 Dept. Affected: Office of the Governor
 Title: "An Act establishing the Alaska Seismic Hazards Safety Commission," BRU: Commissions and Special Offices
 Component: Seismic Hazards Safety Commission
 Sponsor: Representatives Davies, Hudson, Kertt
 Requester: (H) STA Component Number: _____

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services	18.0	13.4	13.4	13.4	13.8	13.8
Travel	7.0	7.0	7.0	7.0	7.0	7.0
Contractual	8.0	8.0	8.0	8.0	8.0	8.0
Supplies	0.5	0.5	0.5	0.5	0.5	0.5
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	33.5	28.9	28.9	28.9	29.3	29.3

CAPITAL EXPENDITURES						
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CHANGE IN REVENUES ()						
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FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	33.5	28.9	28.9	28.9	29.3	29.3
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	33.5	28.9	28.9	28.9	29.3	29.3

Estimate of any current year (FY2001) cost: 0.0

POSITIONS

Full-time						
Part-time	1	1	1	1	1	1
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Fiscal note assumes 1/4 time clerical staff to support commission activity as technical support needs will be met by existing staff in Department of Natural Resources; quarterly commission meetings -- 2 face-to-face and 2 teleconferenced. Travel costs reflect estimated meeting costs for 9 total commission members and one staff. Contractual reflects estimated postage, communication, advertising, and teleconference costs.

Fiscal note assumes existing departmental office space/equipment will be available for use by the part-time clerical staff position.

Prepared by: Michael A. Nizich, Administrative Director Phone 465-3876
 Division: Administrative Services Date/Time 4/19/01 12:00 AM
 Approved by: David Ramseur Date 04/20/2001
 Agency: Office of the Governor

For distribution information, call the Governor's Legislative Office

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: _____
 Bill Version: HB 53
 () Publish Date: _____
 Dept. Affected: Natural Resources
 BRU: Minerals, Land & Water
 Component: Geological Development
 Component Number: 1031

Revision Date/Time (Note if correction): _____
 Title: An Act establishing the Alaska Seismic Hazards Safety Commission
 Sponsor: Davies
 Requester: (H) MLV

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services						
Travel	1.2	1.2	1.2	1.2	1.2	1.2
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	1.2	1.2	1.2	1.2	1.2	1.2

CAPITAL EXPENDITURES						
-----------------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()						
-------------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	1.2	1.2	1.2	1.2	1.2	1.2
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	1.2	1.2	1.2	1.2	1.2	1.2

Estimate of any current year (FY2001) cost: none

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Costs to DGGS resulting from HB53 would be for modest staff time (approximately one-half person-month per year) plus travel associated with meetings. Salary costs would be covered under an existing position in DGGS which has responsibilities in geologic hazards that are consistent with work on this commission. The travel costs indicated above (\$1,200 annually) assume two trips per year at an average cost of \$600 per trip.

Prepared by: Milton Wiltse Phone 907-451-5001
 Division: Geological & Geophysical Surveys Date/Time 01-Feb-01
 Approved by: Pat Pourchot Date 01-Feb-01
 Agency: Natural Resources

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THE
FOLLOWING
DOCUMENT(S)
ARE
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Earthquakes in Alaska

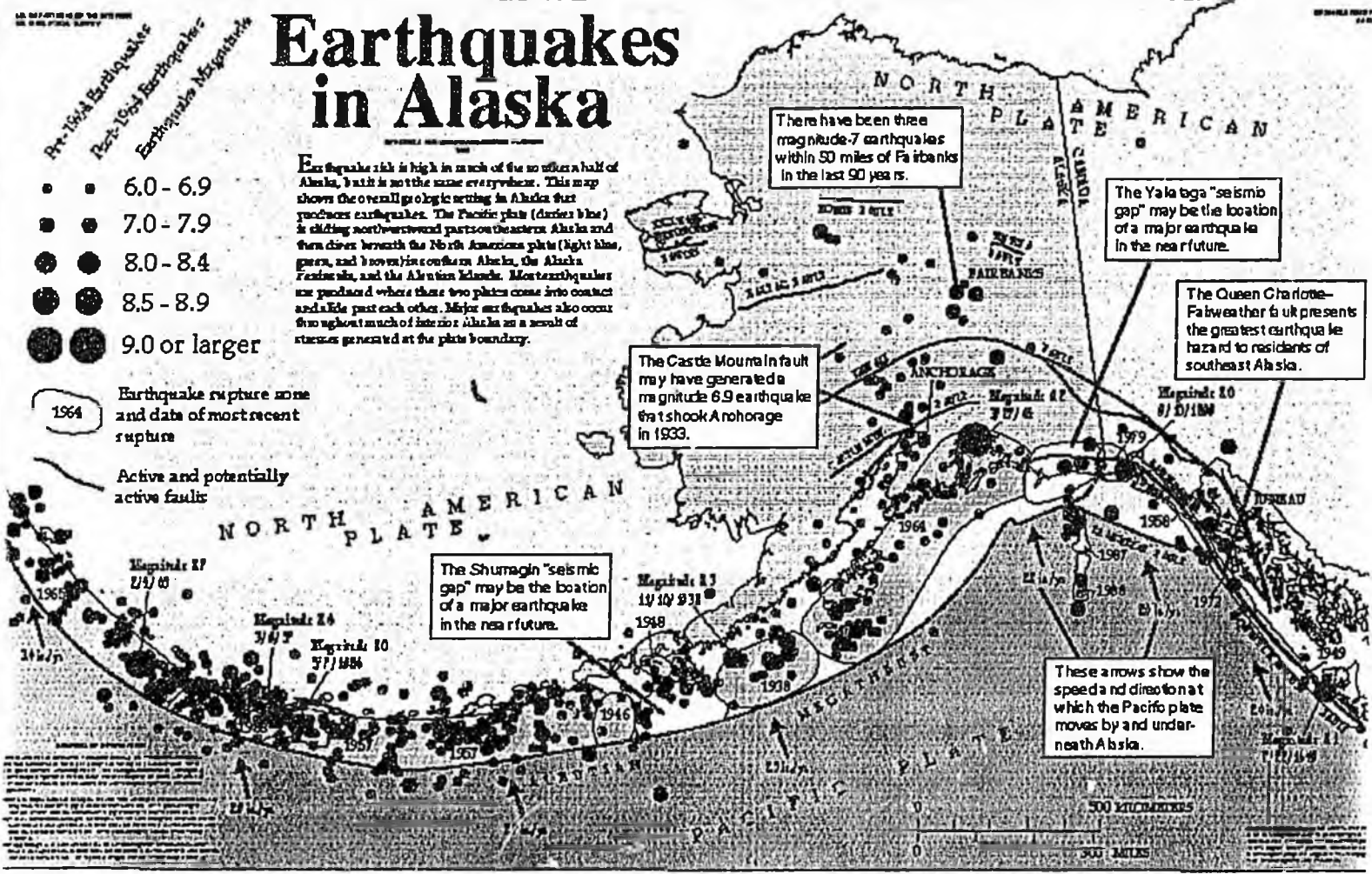
Pre-1954 Earthquakes
 Post-1954 Earthquakes
 Earthquake Magnitudes

- 6.0 - 6.9
- 7.0 - 7.9
- 8.0 - 8.4
- 8.5 - 8.9
- 9.0 or larger

1964 Earthquake rupture zone and date of most recent rupture

Active and potentially active faults

Earthquake risk is high in much of the southern half of Alaska, but it is not the same everywhere. This map shows the overall geologic setting in Alaska that produces earthquakes. The Pacific plate (darker blue) is sliding northward past the eastern Alaska and then dives beneath the North American plate (light blue, green, and brown) in eastern Alaska, the Alaska Peninsula, and the Aleutian Islands. Most earthquakes are produced where these two plates come into contact and slide past each other. Major earthquakes also occur throughout much of interior Alaska as a result of stresses generated at the plate boundary.



There have been three magnitude-7 earthquakes within 50 miles of Fairbanks in the last 90 years.

The Yakutat "seismic gap" may be the location of a major earthquake in the near future.

The Queen Charlotte-Fairweather fault presents the greatest earthquake hazard to residents of southeast Alaska.

The Castle Mountain fault may have generated a magnitude-6.9 earthquake that shook Anchorage in 1933.

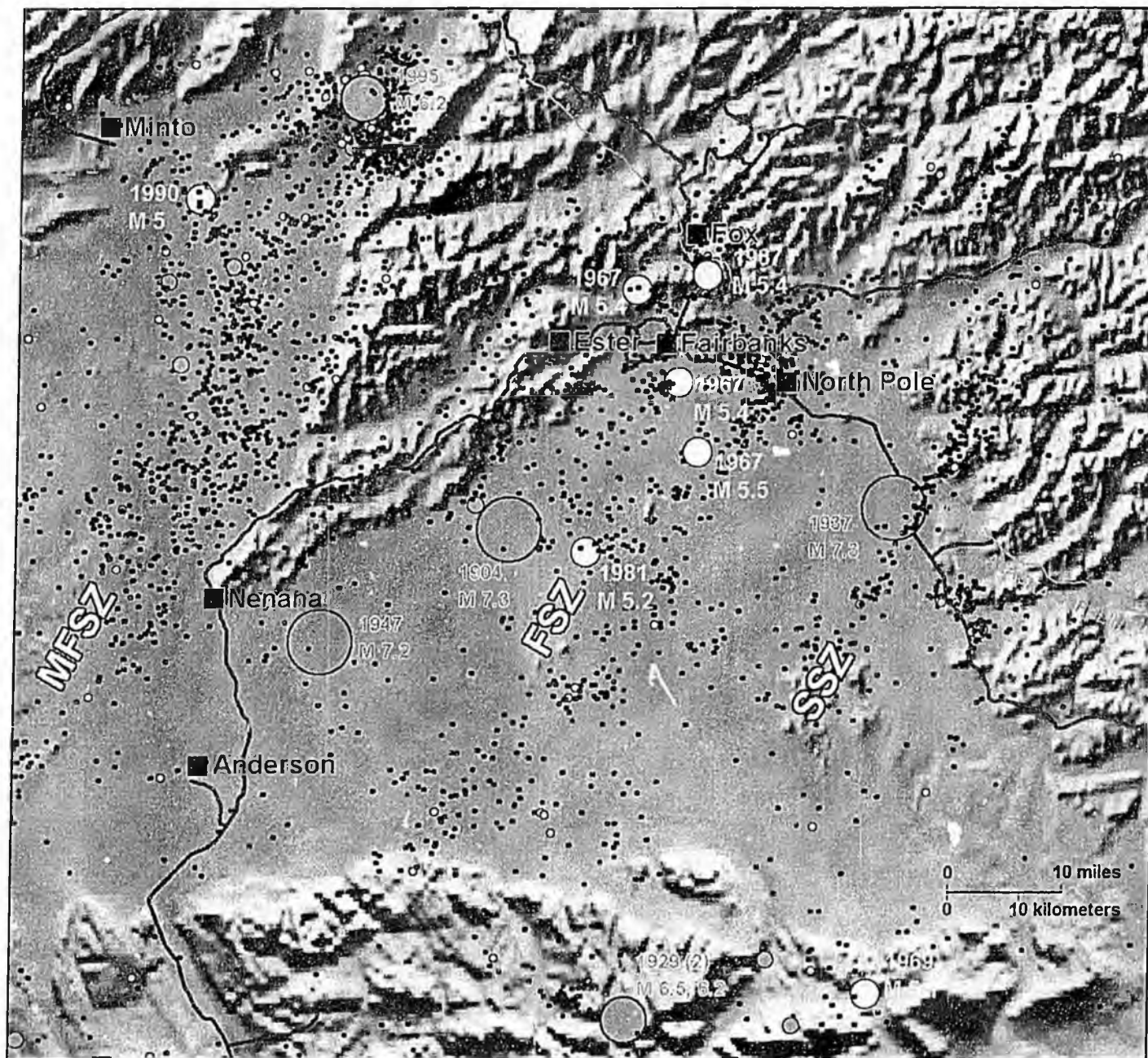
The Shumagin "seismic gap" may be the location of a major earthquake in the near future.

These arrows show the speed and direction at which the Pacific plate moves by and underneath Alaska.

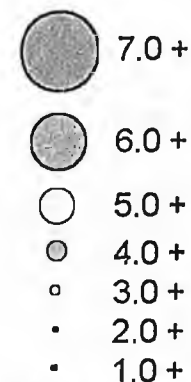
U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 20192
 This map is a reproduction of a map published by the U.S. Geological Survey in 1973. It is not to be used for any purpose other than that for which it was originally prepared. The U.S. Geological Survey is not responsible for any errors or omissions in this map. The U.S. Geological Survey is not responsible for any damage or loss resulting from the use of this map. The U.S. Geological Survey is not responsible for any claims, damages, or liabilities, whether actual or not, arising from the use of this map. The U.S. Geological Survey is not responsible for any claims, damages, or liabilities, whether actual or not, arising from the use of this map.

FAIRBANKS AREA SEISMICITY

1988 TO 1958 INCLUDING LARGE HISTORIC EARTHQUAKES



MAGNITUDE



SEISMIC ZONES

SSZ: Salcha
 FSZ: Fairbanks
 MFSZ: Minto Flats

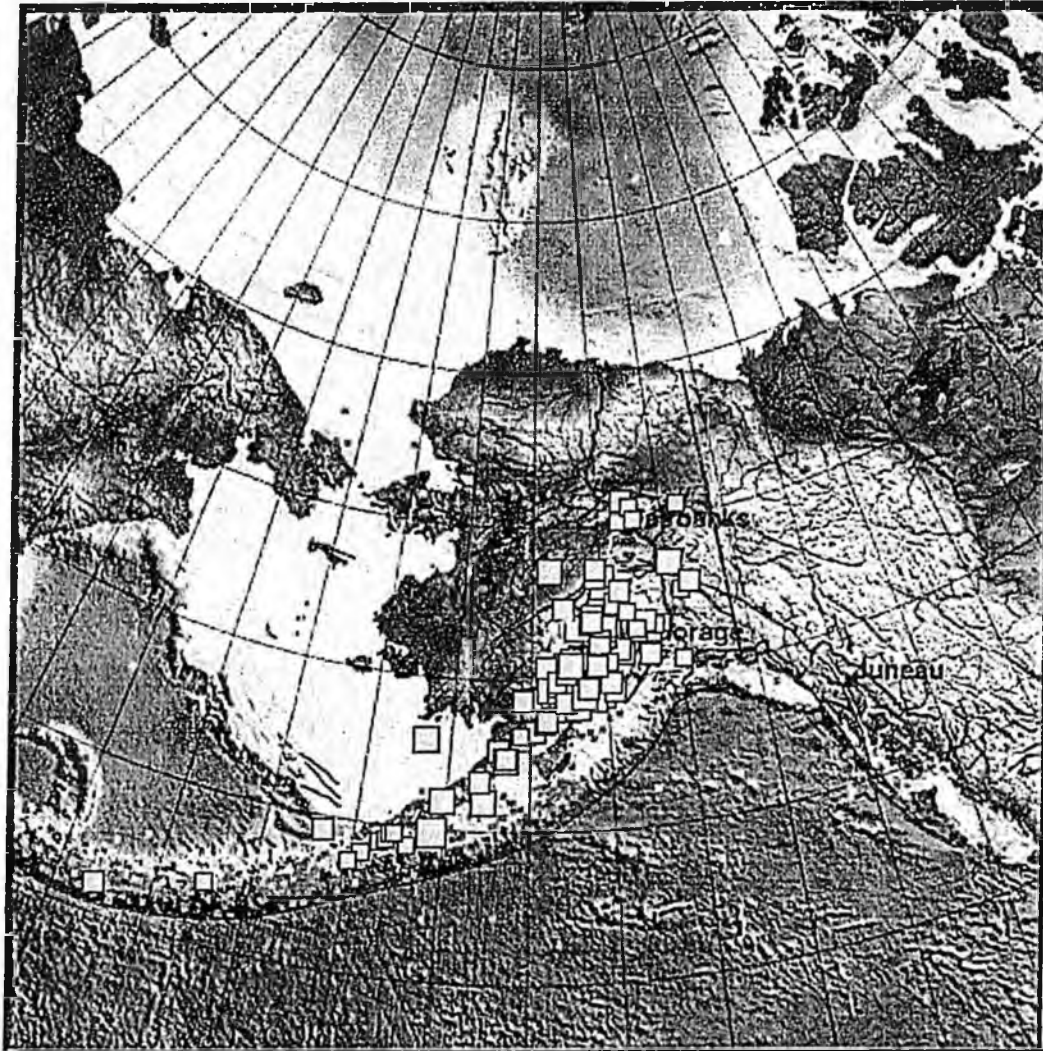


Division of Geological & Geophysical Surveys
 Alaska Department of Natural Resources
 and
 Alaska Earthquake Information Center
 Geophysical Institute
 University of Alaska Fairbanks

Modified from WR Hammond (1/120/95) by R A Combellick (7/27/00)



Recent Earthquakes in Alaska



Other Maps: [Global View](#)

Earthquakes Shown on This Page:		
Local Time	Magnitude	Region
03:15 PM AKDT Wednesday April 11th, 2001	1.88 ML	in the Prince William Sound region of Alaska
01:46 PM AKDT Wednesday April 11th, 2001	2.81 ML	in the Kenai Peninsula region of Alaska
11:04 AM AKDT Wednesday April 11th, 2001	2.23 ML	in the Kenai Peninsula region of Alaska



March 14, 2001
W.O. D00001

The Honorable John Davies
House of Representatives
State Capitol Building
Room 422
Juneau, Alaska 99801-1182

Subject: House Bill 53
Alaska Seismic Hazards Safety Commission

Dear John:

As a practicing civil engineering in the State of Alaska, I wholeheartedly support HB 53 pertaining to the establishment of a state Seismic Hazards Safety Commission. I have been practicing my profession in Alaska for over 25 years. My technical specialties are geotechnical engineering and earthquake engineering, so I routinely deal with the problems associated with seismic hazards and their mitigation throughout the state. Moreover, I have been a member of the Municipality of Anchorage Geotechnical Advisory Commission (GAC) for over 20 years (currently Vice-Chairman). In that role, my fellow commissioners and I have routinely advised the Municipality regarding identification and mitigation of seismic hazards in Anchorage.

Although major earthquakes seemingly are "rare" events, their consequences literally can be disastrous, as was demonstrated by the 1964 great Alaska earthquake. Because of the damage and loss of life that occurred in Anchorage in 1964, and due to the concerns of local engineers and earth scientists, Anchorage established the Geotechnical Advisory Commission to advise our local government officials and citizens about earthquake hazards that can affect our community. The GAC generally has been the only real resource in those matters Anchorage has been able to rely upon consistently and effectively through the years. I believe the commission has had a positive effect on how our community has developed, and how it has taken appropriate steps to mitigate the seismic hazards with which we must live. Most of these efforts have been, and continue to be, through identification and mapping of the local hazards, and recommending mitigation measures to preserve life safety and to minimize economic impacts when the next major quake impacts our city.

Recent earthquakes in California and the February 28, 2001, earthquake near Seattle underscore the consequences even moderate earthquakes can have in urban areas. Moreover, the benefits to a community of understanding regional and local seismic issues and taking steps to mitigate the associated hazards were clearly demonstrated again during the Nisqually (Seattle) earthquake.

I believe it is imperative that the State Legislature of one of the most seismically active regions in the world establish a statewide Seismic Hazard Safety Commission to help its citizens and those responsible for their general well being understand the seismic environment in which they live, and how best to deal with the hazards that can affect them.

The Honorable John Davies
House of Representatives
March 14, 2001
Page 2

John, I applaud your sponsorship of this bill and give it my full support. If there is anything else I can do for you in this matter, please feel free to call me.

Sincerely,
DOWL Engineers

A handwritten signature in cursive script, appearing to read "David A. Cole".

David A. Cole, P.E.
Project Manager

D00001.RepDavies.DAC.031401.mas

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 - b. Seismic Maps Foster Landmark Legislation (map & article)
 - c. Existing Seismic Safety Advisory Boards
- VI. Witness list
- VII. Miscellaneous

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Representative John Davies
District 29

Date March 1, 2001

To: Representative Mike Chenault

From: Representative John Davies

Re: Bill Scheduling-House Bill 53 "Seismic Hazards Safety
Commission"

I request that HB 53 be heard in the House Special Committee on Military & Veterans' Affairs at the earliest possible date.

HB 53 would establish the Alaska Seismic Hazards Safety Commission. The state of Alaska is on the edge of the Pacific Plate which acts like a conveyor belt, moving about six centimeters a year, the legislature needs to create a seismic commission patterned after those in other states on major fault lines. An effort needs to be made to reduce disaster potential and increase disaster preparedness, and this bill does both.

Thank you for your consideration.



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OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services	18.0	13.4	13.4	13.4	13.8	13.8
Travel	7.0	7.0	7.0	7.0	7.0	7.0
Contractual	8.0	8.0	8.0	8.0	8.0	8.0
Supplies	0.5	0.5	0.5	0.5	0.5	0.5
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	33.5	28.9	28.9	28.9	29.3	29.3

CAPITAL EXPENDITURES						
----------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()						
------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	33.0	28.4	28.4	28.4	26.8	28.8
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	33.5	28.9	28.9	28.9	29.3	29.3

Estimate of any current year (FY2001) cost: 0.0

POSITIONS

Full-time						
Part-time	1	1	1	1	1	1
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Fiscal note assumes 1/4 time clerical staff to support commission activity as technical support needs will be met by existing staff in Department of Natural Resources; quarterly commission meetings -- 2 face-to-face and 2 teleconferenced. Travel costs reflect estimated meeting costs for 9 total commission members and one staff. Contractual reflects estimated postage, communication, advertising, and teleconference costs.

Fiscal note assumes existing departmental office space/equipment will be available for use by the part-time clerical staff position.

Prepared by: Michael A Nizich/man
 Division: Administrative Services
 Approved by: David Ramseur
 Agency: Office of the Governor

Phone 465-3876
 Date/Time 1/30/01 12:30 PM
 Date 01/30/2001

For distribution information, call the Governor's Legislative Office

FISCAL NOTE

STATE OF ALASKA
2001 LEGISLATIVE SESSION

Fiscal Note Number: _____
 Bill Version: HB 53
 () Publish Date: _____
 Dept. Affected: Natural Resources
 BRU: Minerals, Land & Water
 Component: Geological Development
 Component Number: 1031

Revision Date/Time (Note if correction): _____
 Title: An Act establishing the Alaska Seismic Hazards Safety Commission
 Sponsor: Davies
 Requester: (H) MLV

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Personal Services						
Travel	1.2	1.2	1.2	1.2	1.2	1.2
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	1.2	1.2	1.2	1.2	1.2	1.2

CAPITAL EXPENDITURES						
-----------------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()						
-------------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF	1.2	1.2	1.2	1.2	1.2	1.2
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type)						
TOTAL	1.2	1.2	1.2	1.2	1.2	1.2

Estimate of any current year (FY2001) cost: none

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Costs to DGGs resulting from HB53 would be for modest staff time (approximately one-half person-month per year) plus travel associated with meetings. Salary costs would be covered under an existing position in DGGs which has responsibilities in geologic hazards that are consistent with work on this commission. The travel costs indicated above (\$1,200 annually) assume two trips per year at an average cost of \$600 per trip.

Prepared by: Milton Wiltse Phone 907-451-5001
 Division: Geological & Geophysical Surveys Date/Time 01-Feb-01
 Approved by: Pat Pourchot Date 01-Feb-01
 Agency: Natural Resources

For distribution information, call the Governor's Legislative Office

Alaska State Legislature

Legislative Committees:
House Finance Committee

Legislative Budget Subcommittees:
University of Alaska
Department of Natural Resources
Department of Environmental Conservation



119 N. Cushman Street Suite 207
Fairbanks, Alaska 99701
(907) 456-8172
FAX (907) 451-9293

While in Session
State Capitol
Juneau, Alaska 99801-1182
(907) 465-4457
FAX (907) 465-3519

Representative John Davies District 29

SPONSOR STATEMENT

House Bill 53

“An act establishing the Alaska Seismic Hazards Safety Commission”

A Seismic Hazards Safety commission needs to be established to address the pressing need to provide a consistent policy framework and a means for ongoing coordination of programs and public safety practices related to seismic hazards. Currently this need is not being addressed by any continuing state government organization. The seismic Hazard Safety Commission would encourage long-term progress toward mitigating the effects of earthquakes.

Alaska is on the edge of the Pacific Plate, which acts like a relentless conveyor belt, moving about six centimeters a year. It is inevitable that there will be large earthquakes, the only question is when will they occur, not if they will occur. Although the state has made great improvements in disaster preparedness there has been little corresponding improvement in measures to reduce the disaster potential of major earthquakes and, consequently, to reduce dependence on disaster relief. Creating a seismic commission patterned after those in California, Oregon, Washington and other states on major fault lines will help address the issues. If you prepare for a major earthquake ahead of time and prepare appropriately, when the earthquake does occur less damage will result, less lives will be lost and the cost of recovery will be less.

Through ten years of experience as state seismologist I have extensive knowledge in this subject area. I have first hand experience with the difficulty of coordinating earthquake information for the university and state, federal, and municipal governments. Anchorage does have an active geo-



tech advisory commission, but the state needs to strengthen that work while broadening efforts throughout the state. A Seismic Safety Hazards Commission can provide that strength.

The scientific community is working hard on earthquake prediction, but it is not yet a reality, except in the most general sense. We can predict in a probabilistic way where earthquakes are likely to occur so we can focus resources in those areas, but in terms of knowing the date and time of occurrence of earthquakes we will not have that information for some time, if ever.

The state can mitigate possible effects of earthquakes by encouraging appropriate land use and building design so it can reduce loss of life and property, as well as the costs of recovery when earthquakes occur. It costs a lot of money to rebuild after a large earthquake and, of course there is no way to replace lost lives; so it is clearly worth spending some time and money before earthquakes occur to prepare for them. If mitigation efforts are undertaken at the time a building or subdivision is in the planning stages, the costs are relatively minor compared to retrofit or rebuilding. This commission would help our state be better prepared.

Members of the commission would be appointed by the governor to represent the university and governmental agencies, as well as members of the public who are knowledgeable in earthquake hazard mitigation. The commission would recommend to the public and governmental sector goals and priorities for reducing earthquake effects. The commission may accept grant contributions and appropriations from public agencies, private foundations, and individuals. The authority and responsibilities of other state agencies, boards, councils, commissions or local governments are not intended to transfer to the Alaska Seismic Hazards Safety Commission.



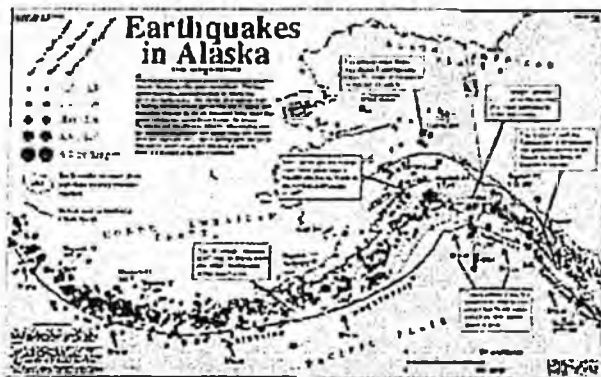
Earthquake Hazards Program – Northern California

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You are here: [Home](#) > [Hazards & Preparedness](#) > [Earthquake Hazards](#) > [Earthquakes in Alaska](#)

Earthquakes in Alaska

Earthquake risk is high in much of the southern half of Alaska, but it is not the same everywhere. This map shows the overall geologic setting in Alaska that produces earthquakes. The Pacific plate (darker blue) is sliding northwestward past southeastern Alaska and then dives beneath the North American plate (light blue, green, and brown) in southern Alaska, the Alaska Peninsula, and the Aleutian Islands. Most earthquakes are produced where these two plates come into contact and slide past each other. Major earthquakes also occur throughout much of interior Alaska as a result of stresses generated at the plate boundary.



(Click on map for a larger version - 77K. Note: The difficult-or-impossible-to-read fine print on the map is all contained in the text on this page.)

A rolled version of this map is available from:
 USGS-Earth Science Information Center
 4230 University Drive, Room 101
 Anchorage, AK 99508
 907-786-7011

The cost is \$4.00 plus \$3.50 for shipping and handling; Visa/MC accepted.

(If you buy the rolled copy, keep it dry as the ink is water-soluble.)

SOURCES OF INFORMATION

Additional data and references to earthquake, faulting, and seismicity in Alaska can be found in Plafker and others (1994), Page and others (1991), and Taber and others (1991). The material on this map was modified chiefly from Plafker and others (1994), and earthquake epicenters were from the Alaska Earthquake Information Center, and cover the interval from 1899-1994. The location of earthquake epicenters and faults is approximate.

Plafker, G., Gilpin, L.M., and Lahr, J.C., 1994, Neotectonic map of Alaska: in Plafker, G., and Berg, H.C., eds., *The Geology of Alaska*: Boulder, Colorado, Geological Society of America, Decade of North American Geology Volume G-1, 1 sheet, scale: 1:2,500,000.

Page, R.A., Biswas, N.N., Lahr, J.C., and Pulpan, H., 1991, Seismicity of continental Alaska: in Slemmons, D.B., Engdahl, E.R., Zoback, M.D., and Blackwell, D.D., eds., *Neotectonics of North America*: Boulder, Colorado, Geological Society of America, Decade Map Volume 1.

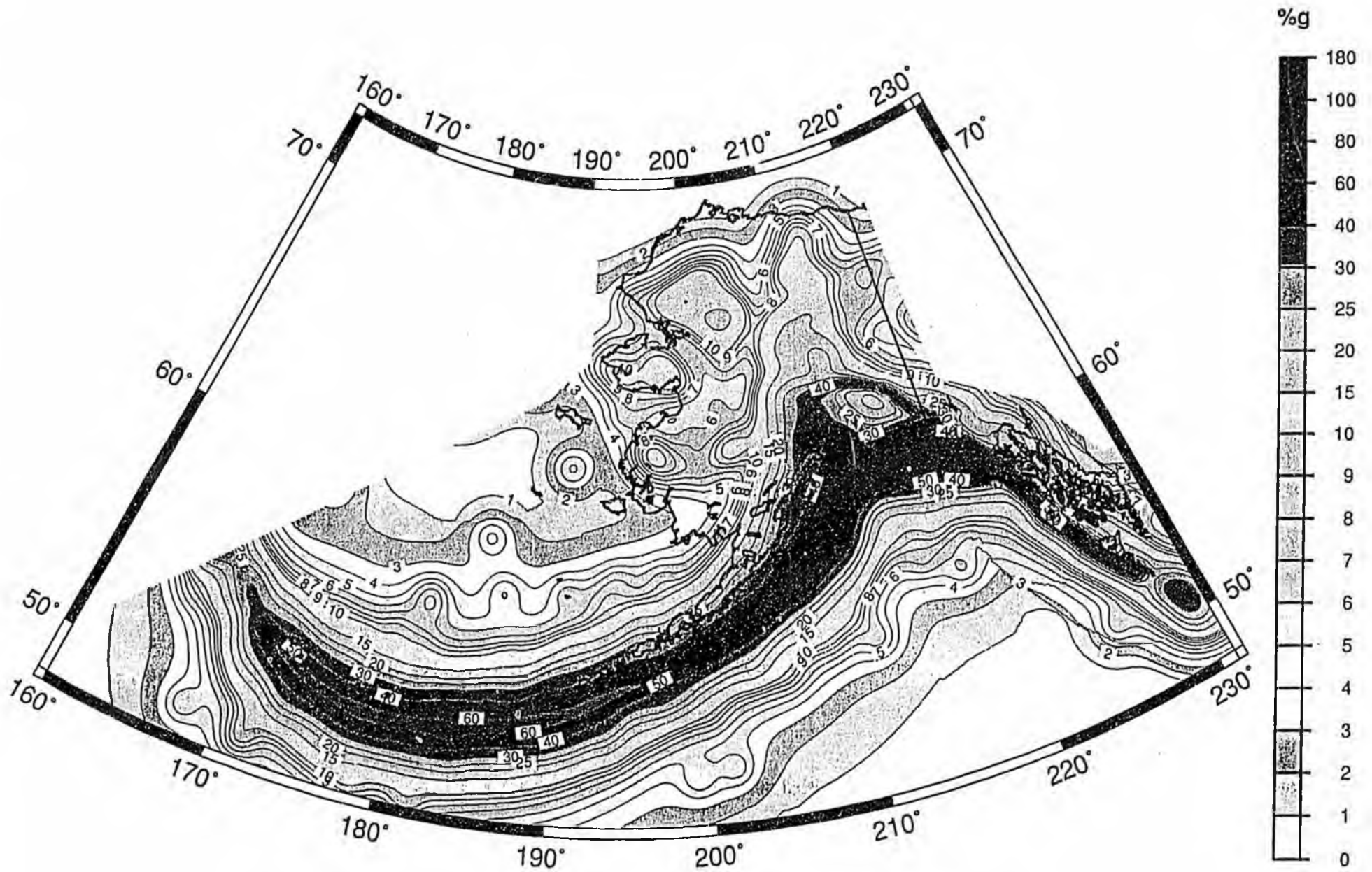
Taber J.J., Billington, S., and Engdahl, E.R., 1991, Seismicity of the Aleutian arc: in Slemmons, D.B., Engdahl, E.R., Zoback, M.D., and Blackwell, D.D., eds., Neotectonics of North America: Boulder, Colorado, Geological Society of America, Decade Map Volume 1.

This map 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.

Open File Report 95-624

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U.S. Geological Survey, Earthquake Hazards Program
URL <http://quake.wr.usgs.gov/prepare/alaska/index.html>
Contact: webmaster@ehznorth.wr.usgs.gov
Last modification: August 15, 2000



Peak Ground Acceleration (%g) with 10% Probability of Exceedance in 50 Years



Latest Quake Info	General Quake Info	Hazards & Preparedness	Earthquake Research	Special Features	Additional Resources
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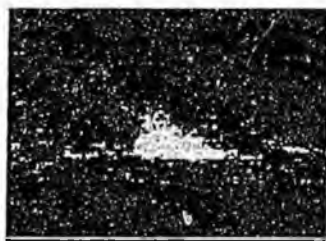
Reducing Earthquake Losses Throughout the United States

Seismic Maps Foster Landmark Legislation

When a powerful earthquake strikes an urban region, damage concentrates not only near the quake's source. Damage can also occur many miles from the source in areas of soft ground. In recent years, scientists have developed ways to identify and map these areas of high seismic hazard. This advance has spurred pioneering legislation to reduce earthquake losses in areas of greatest hazard.

Television cameras broadcasting the start of the 1989 World Series instead recorded the urban devastation from a major earthquake striking Northern California. Four hours after the earthquake struck, homes in San Francisco's prosperous Marina District still burned out of control from fires started by broken gas lines; the shock severely damaged or destroyed 70 residential buildings in the district. Across San Francisco Bay in Oakland, the collapse of the double-decker Cypress freeway structure trapped more than 160 people, 42 of whom died.

Both of these grim spectacles from the magnitude 7.1 Loma Prieta, California, earthquake occurred more than 50 miles from the temblor's source in areas underlain by soft soil (loose sediment, uncompacted fill, and mud). In contrast, structures built on rock and firm soil, which underlie most of San Francisco and Oakland, were largely unscathed. Near the earthquake's epicenter, however, shaking was violent enough to cause considerable damage even in areas underlain by rock and firm soil.



(Click on image for a full size version - 101K)

Buildings constructed on uncompacted fills and soft soils are especially vulnerable to earthquake shaking damage. In this photo, taken four hours after the 1989 Loma Prieta, California, earthquake had struck, homes in San Francisco's Marina District still burn out of control from fires started by broken gas lines. The district was built on artificial fill that included rubble from the great quake of 1906. Scientists can identify areas where such shaking damage is likely to be especially severe. (Photo by Martin Kiimek, Marin

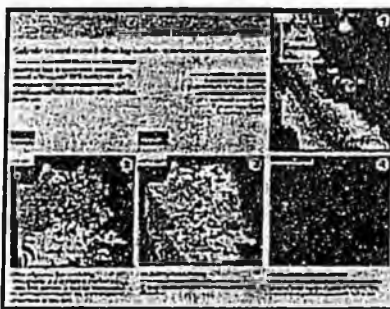
Independent Journal.)

This localization of severe shaking and damage was no surprise. It had been noted in previous San Francisco-area earthquakes, as early as 1868. Only after the devastating 1964 magnitude 9.2 Alaska earthquake, however, did the nation direct much attention toward understanding and mapping earthquake hazards. In the late 1960's, the U.S. Geological Survey (USGS) launched a program to develop methods for identifying and mapping areas of potential earthquake hazard.

An early product of this program was a series of maps showing the locations of active segments of the San Andreas Fault in California. These maps demonstrated the feasibility of identifying faults that might rupture the ground surface in future earthquakes. This capability led to new strategies to reduce losses from such ruptures. In 1972, the California Legislature passed a landmark law requiring the

identification of seismic-hazard zones along faults. In these zones, special geologic studies are required before structures can be built for human occupancy. This law has successfully prevented homes, schools, and offices from being built across active faults.

The major cause of earthquake damage, however, is strong ground shaking, not the rupture of the ground surface by faulting. Strong shaking damages or collapses weak structures over wide areas. It also triggers ground failures (fracturing, sliding, and slumping), which in turn damage or destroy structures and disrupt utility and transportation systems. In the mid-1970's, the USGS published an innovative map of the ground-shaking hazard for part of the San Francisco Bay region. This map was used by local and regional government bodies to develop seismic safety policies. The map predicted that shaking on soft ground would be several times as intense as that on nearby rock. Some engineers and scientists were skeptical of these predictions, but records of strong shaking and patterns of damage in the 1989 Loma Prieta earthquake verified the predictions. The map had correctly showed the Marina District and the area of the Cypress freeway structure as being subject to violent shaking during earthquakes.



(Click on image for a full size version - 83K)

Seismic hazard maps further legislation to reduce earthquake losses: This map sequence illustrates the shaking hazard in San Francisco for a possible repeat of the great 1906 earthquake. Such maps provide information essential for developing effective seismic safety policies and laws.

1-Effect of distance on shaking: *Expected ground shaking on bedrock decreases rapidly with increasing distance from the San Andreas Fault, from very violent (red) to moderate (green).*

2-Effect of ground type on shaking: *The capability of ground type to amplify shaking varies from very high for mud and uncompacted fill, to moderate for sandy soil, to low for soft rock, and to none for hard rock.*

3-Expected ground shaking: *This map combines information from Maps 1 and 2 to show expected shaking levels throughout San Francisco.*

4-Areas of most intense shaking: *This map, derived from Map 3, shows in red the areas of most intense shaking where efforts to reduce earthquake losses should be focused.*

Faced with the disastrous losses from the Loma Prieta shock, the California Legislature realized that stronger measures were needed to combat earthquake hazards. In 1990, the Legislature passed the California Seismic Hazards Mapping Act to assist cities and counties in protecting public health and safety against such hazards. This law requires the State Geologist to make maps of seismic hazard zones, identifying areas prone to violent shaking and ground failure. It also requires that evaluation of these potential hazards precede approval of construction projects within defined hazard zones and that buyers of real estate be notified when the property lies within such a zone. This act builds on the success of both the 1972 law and the early maps of predicted ground shaking.



(Click on image for a full size version - 72K)

Experience in many states reveals that seismic hazard maps serve diverse audiences. Users of these maps include buyers and owners of real estate, geotechnical consultants and engineers, financial institutions, utility and transportation companies, emergency managers, and government planners.

Mapping seismic hazards is especially important in urban areas of earthquake-prone regions of the United States. Such areas have large populations and huge investments in structures and lifelines that are at risk from earthquakes. Potential losses from future urban earthquakes are staggering. For example, a repeat of the 1886 Charleston, South Carolina, earthquake today would cause an estimated 2,000

fatalities and \$5 billion of damage. In the central Mississippi Valley region, projected losses from a repeat of an 1811 earthquake are 6,000 lives and \$50 billion of damage.

Crucial to reducing these potential losses is sound geologic knowledge leading to effective seismic safety policies and legislation.

Roger D. Borchardt, Robert B. Brown, Robert A. Page, Carl M. Wentworth, and James W. Hendley II

COOPERATING AGENCIES, COMPANIES, AND INSTITUTIONS

Association of Bay Area Governments California Division of Mines and Geology City of San Francisco

For more information contact:

Earthquake Information Hotline (415) 329-4085

U.S. Geological Survey, MS 977

345 Middlefield Road, Menlo Park, CA 94025

[USGS Menlo Park Earthquakes Home Page](#)

U.S. Geological Survey Fact Sheet-097-95, March 1995

Web page by [Will Prescott](#) - 1996 April 9





National Seismic Safety Advisory Board Workshop

December 3 - 5, 1996

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This directory was prepared for the December 3-5, 1996
National Seismic Safety Advisory Boards' Workshop
held in Los Angeles, California.

Existing Seismic Safety Advisory Boards

Arizona

Arizona Council for Earthquake Safety
Arizona Department of Emergency and
Military Affairs
Division of Emergency Services
5636 E. McDowell Rd.
Phoenix, AZ 85008
Phone: (602) 231-6238
Fax: (602) 231-6231

Arkansas

Arkansas Earthquake Advisory Council
Arkansas Office of Emergency Services
P.O. Box 758
Conway, AR 72032-0758
(501) 329-5601
Fax: (501) 327-8047

California

Seismic Safety Commission
1900 K St., Ste. 100
Sacramento, CA 95814
(916) 322-4917
Fax: (916) 322-9476

Central United States Earthquake Consortium (CUSEC)

Central United States Earthquake Consortium
2630 E. Holmes Rd.
Memphis, TN 38118
(901) 345-0932
Fax: (901) 345-0998

Hawaii

Hawaii State Earthquake Advisory Board
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, HA 96816-4495
(808) 734-2161
Fax: (808) 737-4150

Illinois

Illinois Earthquake Advisory Board
Illinois Emergency Services & Disaster Agency
110 East Adams St.
Springfield, IL 62706
(217) 782-4448

Indiana

Indiana Seismic Safety Advisory Board
Indiana State Emergency Management Agency
IN GOVT CTR S/302 W. Washington St.
E208
Indianapolis, IN 46204
(317) 232-3986
FAX (317) 232-3895

Kentucky

Governor's Earthquake Hazards & Safety Technical Advisory Panel
Kentucky Division of Div. of Disaster & Emergency Services
EOC Building, Boone Center
Frankfort, KE 40506
(502) 564-8611

Mississippi

Mississippi Seismic Advisory Panel
Mississippi Emergency Management Agency
P.O. Box 4501, Fondren Station
Jackson, MS 39216
(601) 352-9100

Missouri

Missouri Earthquake Hazard Mitigation Panel
Missouri Emergency Management Agency
P.O. Box 116
Jefferson City, MO 65102
(314) 751-9779
FAX (314) 634-7966

Nevada

Nevada Seismic Safety Council
Division of Emergency Management
Capitol Complex
2525 South Carson St.
Carson City, NV 89710
(702) 687-4240
Fax: (702) 687-6788

New England States Earthquake Consortium (NESEC)

New England States Earthquake Consortium
501 Islington St
Portsmouth, NH 03801
(603) 430-9876
Fax: (603) 430-9875

FEMA 1993 (cont'd)

Oregon

Oregon Seismic Safety Policy Advisory
Committee
595 Cottage St., NE
Salem, OR 97310
(503) 378-2903
Fax: (503) 588-1378

Puerto Rico

Comision de Seguridad Contra
Terremotos
Pda. 3 1/2 Ave. Munoz Rivera
Pta. de Tierra Apartado Correo 5887
San Juan, PR 00906
(809) 722-8784
Fax: (809) 725-0350

South Carolina

South Carolina Seismic Safety Consortium
Dept. of Civil Engineering
The Citadel
Charleston, SC 29401
(803) 797-4208

**Southeastern United States Seismic
Safety Consortium**

Southeastern United States Seismic Safety
Consortium
Dept. of Civil Engineering
The Citadel

Charleston, SC 29401
(803) 797-4208

Tennessee

Tennessee Seismic Safety Advisory Panel
Tennessee Emergency Management
Agency
Tennessee EOC
3041 Sidco Dr.
Nashville, TN 37204-1502
(615) 252-3311

Utah

Utah Earthquake Advisory Board
University of Utah Seismograph Stations
705 W. C. Browning Bldg.
Salt Lake City, UT 84112
(801) 581-6274
Fax: (801) 581-7065

Washington

Washington State Seismic Safety Advisory
Committee
Washington State Dept. of Natural
Resources
Geology & Earth Resources Division
P.O. Box 47007
Olympia, WA 98504-7007
(206) 902-1000
Fax: (206) 902-1785

HB 53

March 13, 2001

List of Witnesses

DNR, Director Division of Geological and Geophysical Services
Milt Wiltse Fbks./ 907-451-5001

Roger Hansen, State Seismologist (DGGS)



March 14, 2001
W.O. D00001

The Honorable John Davies
House of Representatives
State Capitol Building
Room 422
Juneau, Alaska 99801-1182

Subject: House Bill 53
Alaska Seismic Hazards Safety Commission

Dear John:

As a practicing civil engineering in the State of Alaska, I wholeheartedly support HB 53 pertaining to the establishment of a state Seismic Hazards Safety Commission. I have been practicing my profession in Alaska for over 25 years. My technical specialties are geotechnical engineering and earthquake engineering, so I routinely deal with the problems associated with seismic hazards and their mitigation throughout the state. Moreover, I have been a member of the Municipality of Anchorage Geotechnical Advisory Commission (GAC) for over 20 years (currently Vice-Chairman). In that role, my fellow commissioners and I have routinely advised the Municipality regarding identification and mitigation of seismic hazards in Anchorage.

Although major earthquakes seemingly are "rare" events, their consequences literally can be disastrous, as was demonstrated by the 1964 great Alaska earthquake. Because of the damage and loss of life that occurred in Anchorage in 1964, and due to the concerns of local engineers and earth scientists, Anchorage established the Geotechnical Advisory Commission to advise our local government officials and citizens about earthquake hazards that can affect our community. The GAC generally has been the only real resource in those matters Anchorage has been able to rely upon consistently and effectively through the years. I believe the commission has had a positive effect on how our community has developed, and how it has taken appropriate steps to mitigate the seismic hazards with which we must live. Most of these efforts have been, and continue to be, through identification and mapping of the local hazards, and recommending mitigation measures to preserve life safety and to minimize economic impacts when the next major quake impacts our city.

Recent earthquakes in California and the February 28, 2001, earthquake near Seattle underscore the consequences even moderate earthquakes can have in urban areas. Moreover, the benefits to a community of understanding regional and local seismic issues and taking steps to mitigate the associated hazards were clearly demonstrated again during the Nisqually (Seattle) earthquake.

I believe it is imperative that the State Legislature of one of the most seismically active regions in the world establish a statewide Seismic Hazard Safety Commission to help its citizens and those responsible for their general well being understand the seismic environment in which they live, and how best to deal with the hazards that can affect them.

The Honorable John Davies
House of Representatives
March 14, 2001
Page 2

John, I applaud your sponsorship of this bill and give it my full support. If there is anything else I can do for you in this matter, please feel free to call me.

Sincerely,
DOWL Engineers

A handwritten signature in cursive script, appearing to read "David A. Cole".

David A. Cole, P.E.
Project Manager

D00001.RepDavies.DAC.031401.mas

Journal Text



02/18/98
HB 53

House Journal

Page 2344

CS FOR HOUSE BILL NO. 53 (FIN)

"An Act relating to the power of municipalities to provide for the confinement and care of prisoners; relating to authorizing the Department of Corrections to enter into an agreement to lease facilities for the confinement and care of prisoners with the City of Delta Junction; and providing for an effective date."

The report was signed by Representatives Therriault and Hanley, Co-chairs, with the following individual recommendations:

Do pass (6): Therriault, Hanley, Mulder, Martin, Kohring, Davis

No recommendation (1): Grussendorf

A Finance Committee letter of intent for CSHB 53 (FIN), signed by Representatives Hanley and Therriault, Co-chairs, appears below:

"It is the intent of the Legislature that the contract signed pursuant to the authority provided in HB 53 should require that:

1. The prison meet American Correctional Association standards;
2. Guards employed in the prison meet the same training standards that are required of prison guards in AS 18.65.130 - 18.65.290;
3. The contract between the City of Delta Junction and the prison operating entity should be for durations of no longer than five years. It may be renewable; and
4. The contract for operation of the facility provide for the removal of the contractor for non performance.
5. The agreement to lease the facility must provide a fixed rate per each bed day, adjusted annually during the term of the lease according to an appropriate index. The fixed rate for the first year must include all capital and operating costs and may not exceed \$70.00 per bed each day."

02/18/98
HB 53

House Journal

Page 2345

The following fiscal notes apply to CSHB 53 (FIN):

Indeterminate fiscal note, Dept. of Corrections, 2/18/98
Zero fiscal note, Dept. of Administration, 2/18/98
Zero fiscal note, Dept. of Revenue, 2/18/98

HB 53 was referred to the Rules Committee for placement on the calendar.

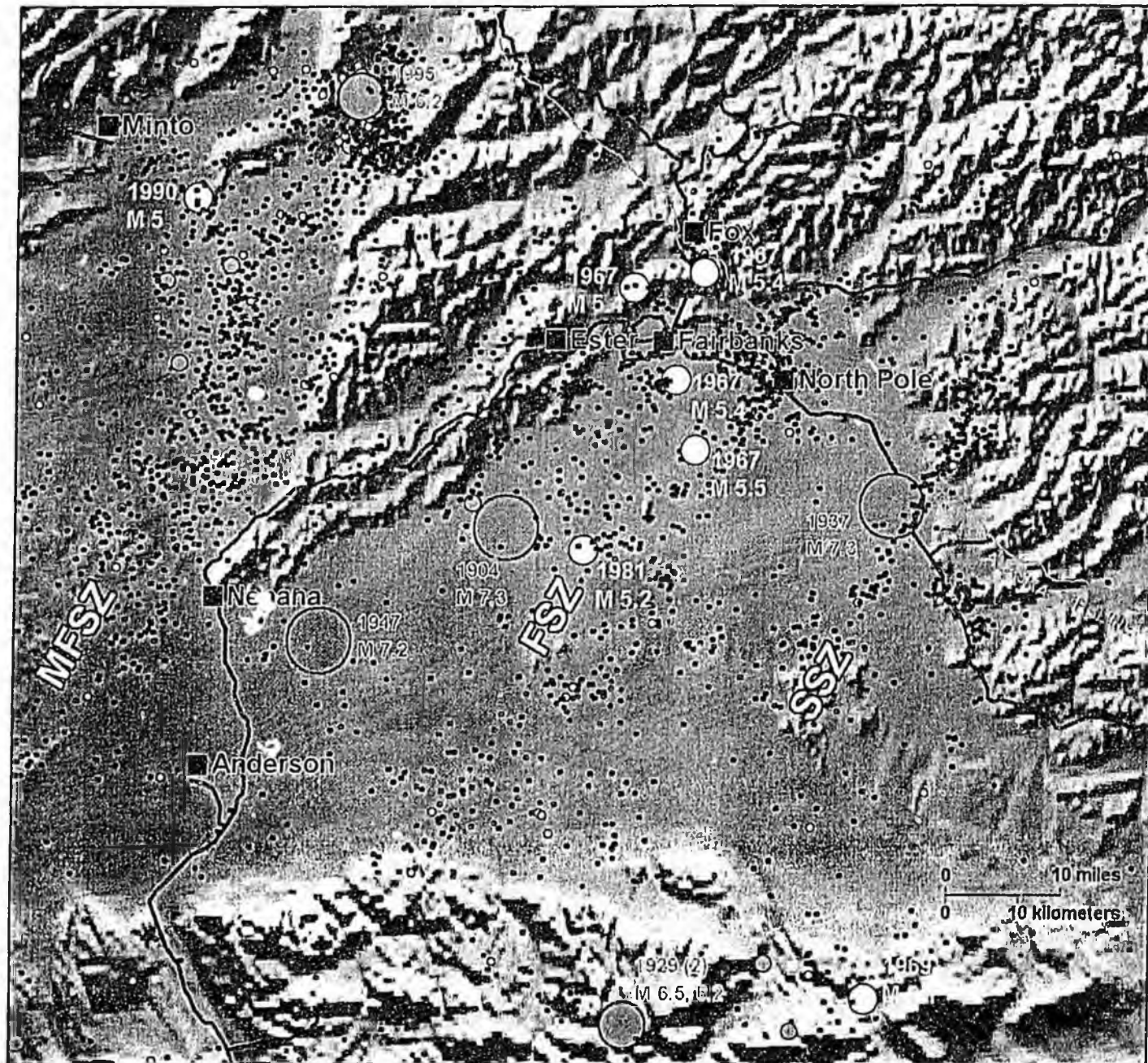
Bill Root:

Display History/Action

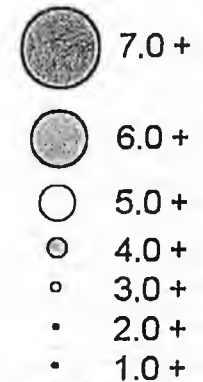
Clear Bill Root

FAIRBANKS AREA SEISMICITY

1988 TO 1998 INCLUDING LARGE HISTORIC EARTHQUAKES



MAGNITUDE



SEISMIC ZONES

SSZ: Salcha
 FSZ: Fairbanks
 MFSZ: Minto Flats



Division of Geological & Geophysical Surveys
 Alaska Department of Natural Resources
 and
 Alaska Earthquake Information Center
 Geophysical Institute
 University of Alaska Fairbanks

Modified from W.R. Hammond (11/20/95) by R.A. Comballick (7/27/00)