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Official Business

Alaska State Legislature

House

P.O. BOX V
State Capitol
Juneau, Alaska 99811

STATE AFFAIRS COMMITTEE

HOUSE BILL 253

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FISCAL NOTE

- A. GOVERNOR'S OFFICE, OFFICE OF MANAGEMENT AND BUDGET, DIVISION OF POLICY: \$200,000

Original sponsor: Rules/Governor

1 IN THE HOUSE BY THE STATE AFFAIRS COMMITTEE
2 CS FOR HOUSE BILL NO. 253 (State Affairs)
3 IN THE LEGISLATURE OF THE STATE OF ALASKA
4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to the Alaska Research Policy Act
7 and the science and engineering advisory commission;
8 and providing for an effective date."

9 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

10 * Section 1. AS 44.19.257(a) is amended to read:

11 (a) The commission is composed of seven [FIVE] members appointed
12 by the governor as follows:

13 (1) one member is to be appointed from individuals from the
14 academic institutions of the state with expertise in areas of research
15 relating to the state including the physical, biological, health,
16 environmental, social, and behavioral sciences;

17 (2) one member is to be appointed from individuals who are
18 engaged in activities furthering the welfare of the human and physical
19 environment and who have expertise in areas of research relating to
20 the state, including the physical, biological, health, environmental,
21 social, and behavioral sciences;

22 (3) one member is to be appointed from state departments
23 with research needs; [AND]

24 (4) one member is to be appointed from individuals familiar
25 with the state and representative of the needs and interests of pri-
26 vate industry;

27 (5) one member is to be appointed from individuals with
28 experience in national and international research programs;

29 (6) one member is to be appointed from the general public;

1 (7) the senior science advisor in the governor's office,
2 who serves as chairman and director of the commission.

3 * Sec. 2. AS 44.19.263 is amended to read:

4 Sec. 44.19.263. POWERS AND DUTIES OF THE COMMISSION. The com-
5 mission shall

6 (1) with the senior science advisor, develop and recommend
7 an integrated state research policy;

8 (2) provide policy information to the governor and the
9 legislature on matters that have scientific and engineering signifi-
10 cance;

11 (3) receive scientific and engineering information from the
12 academic and industrial communities;

13 (4) act in an advocacy role for scientific and engineering
14 issues and science education important to the state that might other-
15 wise be overlooked;

16 (5) assist state agencies in assessing research needs and
17 establishing priorities among them;

18 (6) facilitate cooperation between state agencies and the
19 University of Alaska and other academic institutions and industry;

20 (7) recommend methods to improve logistical planning and
21 support for scientific and engineering research conducted in the state
22 by state, federal, or international agencies, private industry, or the
23 general public [NEEDED STATE RESEARCH];

24 (8) recommend [SUGGEST] methods for improving efficient
25 acquisition, storage, transfer, [SHARING] and dissemination of scien-
26 tific and engineering data and information in the state among inter-
27 ested public and private institutions;

28 (9) promote science education and training for young scien-
29 tists and engineers to pursue careers in the state and the Arctic;

1 (10) cooperate with the Federal Arctic Research Commission
2 in the formulation of the Arctic research policy; and

3 (11) not later than September 30 of each year, present to
4 the governor the commission's recommended research priorities of the
5 state for the next fiscal year.

6 * Sec. 3. AS 44.19.263 is amended by adding a new subsection to read:

7 (b) The commission may

8 (1) receive money from private and government sources;

9 (2) award contracts and grants to accomplish the purposes
10 of AS 44.19.251 - 44.19.265.

11 * Sec. 4. AS 44.19 is amended by adding a new section to read:

12 Sec. 44.19.264. APPROPRIATIONS. Appropriations made for the
13 purposes of AS 44.19.251 - 44.19.265 are not one-year appropriations
14 and do not lapse under AS 37.25.010.

15 * Sec. 5. Notwithstanding AS 44.19.259, the initial terms of members of
16 the science and engineering advisory commission appointed under AS 44.19.-
17 257(a)(5) and (6), enacted by sec. 1 of this Act, are for three years.

18 * Sec. 6. This Act takes effect immediately under AS 01.10.070(c).
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HOUSE COMMITTEE REPORT

(7)

Date referred: 4/8/87

FURTHER REFERRALS: Finance

DATE: 4-22-87

The State Affairs Committee has considered HB 253

"An Act relating to the Alaska Research Policy Act and the science and engineering advisory commission; and providing for an effective date."

RECOMMENDS:

- replace with CS HB 253 (SA) the same title
- attached amendment(s) a new title
- do pass
- do not pass
- no recommendation
- individual recommendations
- additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(S):

- fiscal impact
- zero fiscal note
- zero with analysis
- same as previous fiscal note published 4/8/87
- same as previous zero fiscal note published _____

SIGNING DO PASS:

[Signature]
Cliff Davidson
P. A. Bayh
Perry Martin

SIGNING OTHER RECOMMENDATIONS:

delete "grant's authority"
from Sec 44.19.263 (b)(2)
[Signature]

[Signature]
 Chairman's signature

4/22/87

House State Affairs Committee

Committee Substitute for HB 253

Sec. 44.19.263 POWERS AND DUTIES OF THE COMMISSION. (a) the commission shall

(7) recommend methods to improve logistical planning and support for scientific and engineering research conducted in Alaska by state, federal or international agencies, private industry or the general public (needed state research);

(8) recommend (suggest) methods for improving efficient acquisition, storage, transfer (sharing) and dissemination of scientific and engineering data and information in the state among interested public and private institutions (;) and the general public;

(b) The commission may

(1) receive money from private and government sources;

(2) award contracts and grants to accomplish the purposes of AS 44.19.251 -- 44.19.265.

Revised: 265-4935
~~To Submit 276-5505~~
(~~Printed 474-7783~~)

STEVE COWPER
GOVERNOR



STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 7, 1987

The Honorable Ben Grussendorf
Speaker of the House
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Dear Representative Grussendorf:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting two bills, a substantive measure and an appropriation bill, relating to the Alaska Research Policy Act and the science and engineering advisory commission in the Office of the Governor. AS 44.19.251 -- 44.19.265.

Section 1 of the substantive bill amends AS 44.19.257(a) to increase the size of the science and engineering advisory commission from five to seven members. Section 2 of the bill amends AS 44.19.263 to authorize the commission to receive money from private, as well as government sources, and to award grants to accomplish the purposes of the Alaska Research Policy Act. In sec. 3 of the bill, proposed AS 44.19.264 is added to the Research Policy Act to ensure that appropriations made to carry out the purposes of that Act do not lapse at the end of a fiscal year, but, instead, can be carried forward.

The appropriation bill appropriates \$100,000 to the science and engineering advisory commission to implement the Research Policy Act.

I believe that a key to the rejuvenation and redirection of Alaska's economy is the stimulation of our intellectual resources. This is necessary in order to formulate practical solutions to problems with which we are confronted. These solutions include the creation of new products from our natural resources, improvement in the understanding of our fisheries, and developing Arctic technology, as well as the resolution of a host of other questions that will arise as Alaskans seek to become players in the world markets for value-added goods and services. The expertise gained in reaching these solutions will allow us to come to the world bargaining table as an equal player.

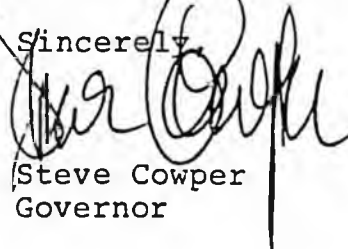
The world's economy is moving toward more capital intensive production of goods designed to serve the mass consumer markets of Asia, Europe, and North America. Those countries and corporations that are the most successful have recognized the need to keep abreast of rapidly changing technical knowledge by investing heavily in applied and basic research. If we in Alaska are to compete, we need to follow this example by endowing a research foundation that will work with Alaska's entrepreneurs to help solve technical problems and provide basic information.

The passage of these bills will initiate a process that will, I hope, lead to a proposal for an Alaska Research Foundation. The current commission will be expanded to allow the inclusion of a member who has expertise in international research and a member from the general public. I will direct the commission to leverage the state contribution with those of federal agencies and private donors, in order to fund research projects that meet the following basic criteria:

1. The project must produce technical knowledge capable of leading to the start-up of a new industry, the improvement of an existing industry, or the understanding of an important Alaskan problem.
2. The project should lead to results within a predictable and short time period (such as within two years). A predictable time frame means that the problem has been adequately analyzed beforehand.
3. Even though the project leads to the solution of a practical Alaskan problem, the knowledge gained should be useful in solving related and broader scientific questions.
4. The overall size of the project should be small enough so that a relatively small amount of money could make a difference. The grant would be seed money or a necessary first step of a potentially larger effort.
5. Projects that could stimulate matching money from industry or the federal government would be desirable. In that case, other money might be obtained resulting to a greater degree of success.

Building upon its experience gained in disbursing these grants, combined with a review of successful research foundations and the advice of Alaska's business and scientific communities, the commission will propose a plan for the creation of a permanent research foundation. I hope that members of the legislature will join me in this effort to move Alaska into a more creative and productive future.

Sincerely,

A handwritten signature in cursive script, appearing to read "Steve Cowper". The signature is written in dark ink and is positioned above the printed name and title.

Steve Cowper
Governor

MEMORANDUM

State of Alaska

TO: John Halterman, Director
Division of Audit and Management
Services
Office of the Governor

DATE: March 17, 1987

FILE NO: 87H-10

TELEPHONE NO: 465-3568

FROM: Henry Cole, Special Assistant
for Science and Technology
Division of Policy
Office of the Governor

SUBJECT: Criteria for the Choice
of Pilot Projects for
Alaskan Applied
Research

Applied research projects which are to be selected from Alaskan Research and Developments grants need to meet certain criteria:

1. The project must produce technical knowledge capable of leading to the start up of a new industry, the improvement of an existing industry or the understanding of an important Alaskan problem.
2. The project should lead to results within a predictable and short time period (such as within 2 years). (The fact that the time frame is predictable means that the problem has been adequately analyzed beforehand.)
3. Even through the project leads to the solution of a practical Alaskan problem, the knowledge gained should be useful in solving related and broader scientific questions.
4. The overall size of the task would be small enough so that a relatively small amount of money could make a difference. The grant would be seed money or a necessary first step of what could be a larger effort.
5. Projects which could stimulate matching funds from industry or the federal government would be desirable. In that case other monies might be obtained resulting to a greater degree of success.

The reason for criteria #3 and #5 is that the existence of a related scientific question could very likely connect this local Alaskan problem to scientific questions of national or

OFFICE OF
MANAGEMENT & BUDGET

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AUDIT AND MANAGEMENT
SERVICES

global interest. The National Science Foundation and National Oceanic and Atmospheric Administration have considerable interest in funding research in Alaska on basic questions of biological and chemical oceanography, the interaction of the Bering Sea ice edge with nutrients and primary productivity, ocean currents and meteorology.

Federal priorities in research in seven basic areas have been set forth in the working document of the 1984 Arctic Research Policy Act. This document serves as an important point of connection between State and federal research efforts. Federal/State coordinating committees are already assigned for the areas of fisheries, health and logistics. These areas have been identified to be of the highest priority for action by the Arctic Research Commission. In these and other areas which have been identified, federal agencies would welcome joint participation if the State would pick up some of the costs. And a mechanism for the near term release of small amounts of federal money help could be sought through our congressional delegation. Furthermore, careful initial planning, involvement and awareness by the Alaskan business and scientific communities would generate enthusiasm, lead to possible matching of funds and insure the endorsement of this grant process for future applied research and development schemes.

The execution of these proposals would be according to the following scheme: *new word ←*

1. The State contribution to this pilot project is \$100,000 which will be matched by an additional \$100,000 from private individuals.
2. The choice of a suitable project would be made by the ~~Science Advisor in consultation with the Science and Engineering Advisory Commission~~, instituted by the Alaska Research Policy Act.
3. Proposals should be less than 5 pages and include:
 - a) A statement of what is to be accomplished and the specific steps towards the goal.
 - b) A precise time frame for the steps and the final result.
 - c) A budget.

- d) A plan and provision for immediate dissemination of the research results to interested user groups and agencies.
4. The expenditures and scientific results must be clearly and accurately accountable to the Office of the Governor.

Listed below are possible candidates for study which have recently come to my attention. The actual and final choices would be based upon submitted proposals and a proper review process. These examples merely describe the projects which seem to fit the above criteria.

1. Fisheries: Fisheries return data such as overall harvest size and composition and age/size structure is essential for analyzing population status and trends. These data could be provided by a shipboard observer program. Such information permits increased harvest predictability and is necessary for long-term sustainable-yield management of the resource. In addition, such information may apply to our understanding of the overall health and stability of the ecosystem. Certain components of that ecosystem (southern and central Bering Sea), such as marine mammals, have been subject to severe population declines in recent years, for reasons which are poorly understood.
2. Fisheries: Parasitism Research: Investigations into the distribution, causes, and controlling factors of diseases and parasitism affecting commercial fish and shellfish populations could have obvious benefits in terms of increased harvests and resource stability. One such instance which would bear further investigation is the nemertean parasite which attacks crab eggs during incubation. Studies should probably concentrate efforts at possible methods of control, which would probably derive from increased understanding of the life history of the parasite and factors which control its populations.
3. Health: A pathology study on the aorta and heart tissue of atherosclerosis victims from non-native and native Alaskan populations whose diets have been documented. This study would provide a solid link between seafood diet and the characteristics of the heart tissue at death. A clear result could lead to major future federal funding of \$3m to investigate the hypothesis that a seafood diet reduces the chance of atherosclerosis.

4. Logistics: To produce a document which lists the types and utility of remote logistic sites and transportation available for field research in Alaska. More than one half the cost of field science in Alaska is logistical. Military, State agencies and the university would be sources of information.

HC/dmc

cc: Governor Cowper

Mary Halloran, Director
Division of Policy
Office of the Governor

Elmer Rasmussen, Member
Arctic Research Commission
Corporate Headquarters
P.O. Box 100600
Anchorage, AK 99510

Sam Stoker, Auditor
Division of Audit and Management
Services
Rod Swope, Special Assistant
Office of the Governor

Members of the Science & Engineering Advisory Commission

Brian J. Allee
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Joseph M. Colonell, PhD
4794 Business Park Blvd.
Anchorage, AK 99503

Donald E. Pickering, MD
1200 Airport Heights Dr.
Anchorage, AK 99508

Paul B. Reichardt, PhD
2086 Tobaggon Lane
Fairbanks, AK 99709

Arctic Environmental Information and Data Center
707 A Street
Anchorage, Alaska 99501



PHONE (907) 452-323

UNIVERSITY OF ALASKA--FAIRBANKS

April 21, 1987

Representative Fran Uimer
House of Representatives
P.O. Box V (Mailstop 3100)
Juneau, AK 99811

Dear Fran:

The attached version of HB 253 offers suggested changes and additions to the bill as introduced amending the Alaska Research Policy Act (A.S. 44.19.251-44.19.265).

Additionally, I have forwarded to Judy Crondoll's attention a copy of a plan for National Arctic Information Network, and I enclose here also a joint letter from former Governor Bill Sheffield and James Zumberge, chairman of the U.S. Arctic Research Commission which began the arctic/Alaska information planning process authorized by the U.S. Arctic Research and Policy Act.

In my judgment, it is very desirable for the state of Alaska and other Alaska-based organizations working together through the Council on Northern Resources Information Management (CONRIM) to maintain leadership in matters of natural resource, scientific, and engineering information management.

An opportunity exists in this legislative session to couple science and research policy with information policy as already accomplished within the federal law. SB 232 in the Senate seeks this objective. SD 232 and HB 253 may be readily combined along the lines I indicate. If this is done, Alaska can meaningfully demonstrate partnership with federal Alaska/U.S. Arctic interests in the concepts that science and technology may really serve societal interests. It is an opportunity also for Governor Cowper to support information management policies which reflect his pronounced ideas of the ways information services and systems may be supportive of enhanced economic progress in Alaska. This coupling of science and related information policy is the thrust of my suggested amendments to HB 253.

I will also offer some minor suggestions based upon my long experience in science policy matters.

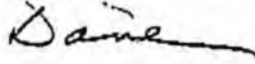
UNIVERSITY OF ALASKA - FAIRBANKS

Representative Fran Ulmer
April 21, 1987
Page 2

I look forward to the opportunity to speak to the committee Wednesday at 3 p.m.

Thank you for your considerations

Sincerely,



David M. Hickok
Director

DMH:jlh
11G/308

Enclosures

cc: Representative H.A. "Red" Boucher
Dr. Henry Cole, Science Advisor
Judy Crondoll
Senator Joe Josephson
Wendy Redman

IN THE HOUSE

BY THE RULES COMMITTEE BY
REQUEST OF THE GOVERNOR

HOUSE BILL NO. 253

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the Alaska Research Policy Act and the science and engineering advisory commission; and providing for an effective date."

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

* Section 1. AS 44.19.257(a) is amended to read:

(a) The commission is composed of saven [FIVE] members appointed by the governor, a majority of whom shall have experience in Alaska plus national and international science or engineering activities related to the duties of the commission, as follows:

(1) one member [IS TO BE] appointed from individuals from the academic institutions of the state with expertise in areas of research relating to the state including the physical, biological, health, environmental, social, and behavioral sciences;

(2) one member [IS TO BE] appointed from ~~individuals who are~~ engaged in activities furthering the welfare of the human and physical environment and who have expertise in areas of research relating to the state, including the physical, biological, health, environmental, social, and behavioral sciences;

(3) one member [IS TO BE] appointed from state departments with research needs; [AND]

(4) one member [IS TO BE] appointed from individuals familiar with the state and representative of the needs and interests of private industry;

(5) one member appointed from individuals nominated by the Council on Northern Resources Information Management.

(6) one member [IS TO BE] appointed from the general public; and
(7) the senior science advisor in the governor's office, who
serves as chairman and director of the commission.

* Sec. 2. AS 44.19.263 is amended to read:

Sec. 44.19.263. POWERS AND DUTIES OF THE COMMISSION. (a) The
commission shall

(1) with the senior science advisor, develop and recommend an
integrated state research policy;

(2) provide policy information to the governor and the
legislature on matters that have scientific and engineering significance;

(3) receive scientific and engineering information from the
academic and industrial communities;

(4) act in an advocacy role for scientific and engineering issues
and science education important to the state that might otherwise be
overlooked;

(5) assist state agencies in assessing research needs and
establishing priorities among them;

(6) facilitate cooperation between state agencies and the
University of Alaska and other academic institutions and industry;

(7) recommend methods to improve logistical planning and support
for needed state research;

(8) suggest methods for improving efficient sharing and
dissemination of data and information in the state among interested public
and private institutions;

(9) promote science education and training for young scientists
and engineers to pursue careers in the state and the Arctic;

(10) cooperate with the Federal Arctic Research Commission and
the Interagency Arctic Research Policy Committee in the formulation of
[THE] arctic research [POLICY;] and information networking policies; and

(11) not later than September 30 of each year, present to the governor the commission's recommended research priorities of the state for the next fiscal year.

* Sec. 3. AS 44.19.263 is amended by adding new subsections to read:

(b) the commission shall conduct an annual policy review of the programs of agencies of the state and the University of Alaska concerned with t acquisition, management, transfer, circulation, and dissemination of scientific, natural resource and engineering information, data, or materials and may develop and recommend appropriate policies for organizations involved with such activities.

(c) The commission may

(1) receive money from private and government sources;

(2) award [GRANTS] contracts to accomplish the purposes of AS 44.19.251

* Sec. 4. AS 44.19 is amended by adding a new section to read:

Sec. 44.19.264. DESIGNATION OF MANAGEMENT ROLES IN COOPERATIVE INFORMATION AND DATA MANAGEMENT FOR AN ALASKA/U.S. ARCTIC NATIONAL INFORMATION NETWORK.

(a) A state agency may join the Council on Northern Resources Information Management and participate in cooperative information and data management sharing and dissemination programs.

(b) The commission shall use the Council on Northern Resources Information Management as an advisory group for the development of state policy on cooperative interagency information management, sharing, and dissemination.

(c) The Alaska state library and the Rasmuson Library of the University of Alaska-Fairbanks may be designated as primary library information collection repositories and centers for scientific, natural resource and engineering knowledge.

(d) Each state agency and each organizational unit of the University of Alaska shall maintain a listing and description with the

commission and with the Council on Northern Resources Information Management of the natural resource, scientific, and engineering data bases that the agency or unit has developed and is maintaining. The listing shall be revised and submitted to the commission and the council annually. Proprietary data may be protected under law.

(e) The Arctic Environmental Information and Data Center of the University of Alaska-Anchorage shall provide professional information acquisition activities, investigations and searches, or information consultation liaison and referral services, or information dissemination services, under appropriate terms and conditions, to the commission, any agency of the state or unit of the University of Alaska, or to the public and to private industry in the fields of natural resource, scientific and engineering research, management and development knowledge. The center may acquire and maintain current or historic information collections, data bases or referral systems or directories to accomplish these services and prepare, publish, and disseminate appropriate books, reports, maps, films and other media to meet the needs of governments and the public and private sectors. The center may also share facilities and offer support services to appropriate governmental agencies or university units whose missions are enhanced by, and are compatible with, the operation of the center; and the center shall administer the Alaska State Climate Center established under AS 14.40.085 in cooperation with the regional office of the National Weather Service and the National Climatic Data Center under cooperative agreements authorized by law.

* Sec 5[3]. AS 44.19 is amended by adding a new section to read:

Sec. 44.19.265[4]. APPROPRIATIONS. Appropriations made for the purposes of AS 44.19.251 -- 44.19.264[5] are not one-year appropriations and do not lapse under AS 37.25.010.

* Sec 6[4]. Notwithstanding AS 44.19.259, the initial terms of members of the science and engineering advisory commission appointed under

AS 44.19.257(a)(5) and (6), enacted by sec. 1 of this Act, are for three years.

* Sec. 7[5]. This Act takes effect immediately under AS 01.10.070(c).

BILL SHEPFIELD
GOVERNORSTATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

January 31, 1986

-1-

Mr. Gerald Zamber, Federal Co-Chairman,
U.S. Bureau of Land Management
Mr. Douglas Mutter, State Co-Chairman,
Alaska Department of Natural Resources
Committee for Natural Resource Information Management
701 "C" Street
P.O. Box 1313
Anchorage, AK 99572

Dear Mr. Zamber and Mr. Mutter:

The purpose of this letter is to encourage the federal-state interagency Committee for Natural Resource Information Management (CONRIM) in its current efforts to draft a cooperative interagency agreement for the formal establishment and operation of an Arctic and Alaskan natural resource, scientific, and technological information transfer network.

The creation of this proposed network will greatly assist the U.S. Arctic Research Commission in carrying out its responsibilities set forth in the Arctic Research and Policy Act of 1984 and enhance the natural resource and scientific research and management missions of both federal and state governments.

We trust that you and the CONRIM membership will provide continued leadership in this endeavor and offer our suggestion that the agreement will set forth: 1) specific information management and transfer objectives to be achieved through organizational coordination and cooperation; 2) individual agency responsibilities consonant with existing law and regulation; 3) organizational representation and administrative relationships; and 4) recognize the relationship of the availability of funds to the achievement of long-range objectives and the execution of responsibilities.

Mr. Zamber and Mr. Mutter

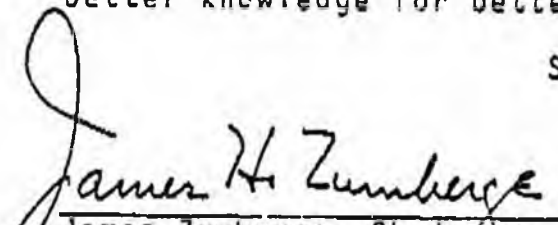
-2-

January 31, 1986

We also suggest that the writing of the draft agreement be accomplished in close liaison with all agencies concerned, be responsive to individual mission responsibilities and interests and be coordinated with a related project of the University of Alaska-Fairbanks, Arctic Environmental Information and Data Center's (AEIDC) entitled Arctic Information Network Design and Plan.

The result of this endeavor will be the availability of better knowledge for better government.

Sincerely,


James Zumberge, Chairman
United States Arctic
Research Commission


Governor Bill Sheffield
State of Alaska



STATEMENT OF

DAVID M. HICKOK

BEFORE

ALASKA HOUSE OF REPRESENTATIVES
COMMITTEE ON STATE AFFAIRS

IN CONSIDERATION OF HB253

APRIL 22, 1987

Chairman Ulmer, members of the State Affairs Committee of the Alaska House of Representatives, my name is David Hickok. I am director of the University of Alaska's Arctic Environmental Information and Data Center, current president of the Alaska Academy of Engineering and Sciences and past chairman of the Alaska Council on Science and Technology. I have been involved with science policy--particularly arctic science policy since 1964. That's 27 years--longer than anyone else in the state of Alaska. I began working with Bob Bartlett in 1964-65 on his ideas that U.S. arctic policy should equate with U.S. Antarctic interests. For 21 years I alone carried this dream forward. In 1968 in my capacity with the Federal Field Committee for Development Planning in Alaska (the post 1964 earthquake reconstruction group), I helped place on President Johnson's desk a United State's policy for arctic interests. The president was ill in the later days of his office and did not sign this policy. In 1981 U.S. arctic policy interests were resurrected in a white paper authored by me and four colleagues entitled U.S. Arctic Science Policy.

This paper was the foundation of legislation sponsored by Senators Murkowski, Stevens, and Jackson. I drafted this legislation for the senators with the collaboration of Mr. William VanNess which ultimately became law as the U.S. Arctic Research and Policy Act.

As Chairman Ulmer is also aware, she and I worked together to forge the legislation in the Hammond administration establishing the Alaska Council on Science and Technology.

It is from this background that I speak to you today.

My essential message to you is:

(1) that federal law links U.S. arctic science activities to a foundation of man's current knowledge;

(2) that former Governor Sheffield and U.S. Arctic Research Commission Chairman James Zumberge expressed jointly in their letter of January 31, 1986, that their first science policy priority was the formulation of an Alaska/Arctic information network--they requested action to that end;

(3) that Alaska science policy statute, unlike federal law, is currently silent on this essential linkage of science and information and that this omission in the original statute should be corrected, in my opinion;

(4) that the opportunity exists, here and now, to amend HB 253 and to demonstrate Alaska's commitment to U.S. arctic policy interests through partnerships in information networking; and

(5) that although Senate Bill 232 reflects this policy linkage between science and information, the best opportunity for cohesive action this session between the House of Representatives and the Senate, exists in amendment to HB 253 with the essence of SB 232--then I predict that the Senate will act in concert.

In a more general view, I should say here that the members of the Council on Northern Resources Information Management, which I chair, also believe that HB 40 sponsored by Representative Boucher is complementary to our substantive interests in natural resource, scientific and engineering information management. We believe that as HB 253 is amended, as I suggest, HB 40 should

also be passed out in order to provide concerted processes for improved policies and practices in information management which will positively and favorably enhance Alaska's ability to use existing knowledge in support of societal problems and the resolution of the issues and conflicts before us.

With the linkage of science and information policy vested in the Alaska Science and Engineering Advisory Commission, the stage is set for the execution of the partnership between the state and the federal government for an Alaska/arctic information network. Without action by Alaska, I fear that the federal agencies will proceed unilaterally in their advocacy of a five-year arctic research plan before the Congress this summer to establish and operate a national arctic information network. This would indeed be a sad and unnecessary happening and would not bode well for Alaska's interests.

All of this policy linkage is proposed as sec. 44.19.264 on pages 3 and 4 of the revisions I suggest to HB 253.

In addition, I have the following other comments to offer.

First, appropriation of funds for the Commission is essential to its operation and cooperation with federal agencies. In this context, I do suggest, however, out of a great deal of experience, that funds so appropriated must be used for the internal resolution of commission policy resolution and science planning for Alaska. You may recall that it was the downfall of the Alaska Council on Science and Technology to be involved with both science policy and the granting of research funds. These two functions are utterly incompatible in one office. While the commission should proceed with planning for a state research foundation and possibly contract funds for policy and program analysis they should in no way grant funds for research per se.

It is to that end that I suggest the substitution of the word contracts for grants in sec. 3, subsection (c).

Finally, a last note of perhaps minor significance, but nevertheless important enough to note. At issue is the composition of the Alaska Science and Engineering Advisory Commission. In HB 253 as originally offered is the addition of: one member appointed from individuals with experience in national and international research programs. One cannot help but notice that all other appointments to the commission are to be drawn from representative interest groups. Here is a qualification rather than a representational criteria. I believe it to be unnecessary since there are hundreds probably about 3,000 individuals in Alaska with these qualifications. Wouldn't it be more consistent and appropriate to consider this qualification of appointment more broadly for all commission opportunities? I offer language in this respect. In addition, I feel strongly that representation from the Council on Northern Resources Information Management will further balance out the commission's representation and forge the necessary linkage between information management and science policies.

That is all I have to say. I thank you for this opportunity and would be pleased to answer any questions.

**STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE**

No. 1

REQUEST: _____
 Revision Date: _____
 Title: An Act Relating to Alaska
 Research Policy
 Sponsor: Rules Committee
 Requestor: Governor

Bill Version: HB 253
 Publish Date: HOUSE 4/8/87

Agency Affected: Governor's Office
BRU; Office of Management & Budget
 Components: Division of Policy



EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS		200.0				
MISCELLANEOUS						
TOTAL OPERATING		200.0				
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		100.0				
FEDERAL FUNDS						
OTHER		100.0				
TOTAL		200.0				

POSITIONS:

FULL-TIME		0				
PART-TIME		0				
TEMPORARY		0				

ANALYSIS : (Attach a separate page if necessary)

See attached

Prepared by: Henry Cole, PhD
 Division: Office of Management and Budget
 Approved by Commissioner: Pete Jeans, Chief of Staff
 Agency: Office of the Governor

Phone: 465-3568
 Date: 3/25/87

Date: 3/25/87

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- Senate Secretary

AN ACT RELATING TO ALASKA RESEARCH POLICY

Henry Cole

Applied research projects which are to be selected from Alaskan Research and Developments grants need to meet certain criteria:

1. The project must produce technical knowledge capable of leading to the start up of a new industry, the improvement of an existing industry or the understanding of an important Alaskan problem.
2. The project should lead to results within a predictable and short time period (such as within 2 years). (The fact that the time frame is predictable means that the problem has been adequately analyzed beforehand.)
3. Even though the project leads to the solution of a practical Alaskan problem, the knowledge gained should be useful in solving related and broader scientific questions.
4. The overall size of the task would be small enough so that a relatively small amount of money could make a difference. The grant would be seed money or a necessary first step of what could be a larger effort.
5. Projects which could stimulate matching funds from industry or the federal government would be desirable. In that case other monies might be obtained resulting to a greater degree of success.

The reason for criteria #3 and #5 is that the existence of a related scientific question could very likely connect this local Alaskan problem to scientific questions of national or global interest. The National Science Foundation and National Oceanic and Atmospheric Administration have considerable interest in funding research in Alaska on basic questions of biological and chemical oceanography, the interaction of the Bering Sea ice edge with nutrients and primary productivity, ocean currents and meteorology.

Federal priorities in research in seven basic areas have been set forth in the working document of the 1984 Arctic Research Policy Act. This document serves as an important point of connection between State and federal research efforts. Federal/State coordinating committees are already assigned for the areas of fisheries, health and logistics. These areas have been identified to be of the highest priority for action by the Arctic Research Commission. In these and other areas which

have been identified, federal agencies would welcome joint participation if the State would pick up some of the costs. And a mechanism for the near term release of small amounts of federal money help could be sought through our congressional delegation. Furthermore, careful initial planning, involvement and awareness by the Alaskan business and scientific communities would generate enthusiasm, lead to possible matching of funds and insure the endorsement of this grant process for future applied research and development schemes.

The execution of these proposals would be according to the following plan.

1. The State appropriation to this pilot effort is \$100,000 which will be matched by an additional \$100,000 from private individuals.
2. The choice of a suitable project(s) would be made by the Science and Engineering Advisory Commission, instituted by the Alaska Research Policy Act.

Listed below are possible candidates for study which have recently come to my attention. The actual and final choices would be based upon submitted proposals and a proper review process. These examples are listed merely to illustrate the projects which seem to fit the above criteria.

1. Fisheries: Fisheries return data such as overall harvest size and composition and age/size structure is essential for analyzing population status and trends. These data could be provided by a shipboard observer program. Such information permits increased harvest predictability and is necessary for long-term sustainable-yield management of the resource. In addition, such information may apply to our understanding of the overall health and stability of the ecosystem. Certain components of that ecosystem (southern and central Bering Sea), such as marine mammals, have been subject to severe population declines in recent years, for reasons which are poorly understood.
2. Fisheries: Parasitism Research: Investigations into the distribution, causes, and controlling factors of diseases and parasitism affecting commercial fish and shellfish populations could have obvious benefits in terms of increased harvests and resource stability. One such instance which would bear further investigation is the nemertean parasite which attacks crab eggs during incubation. Studies should probably concentrate efforts at possible methods of control, which would probably derive from increased understanding of the life history of the parasite and factors which control its populations.

3. Health: A pathology study on the aorta and heart tissue of atherosclerosis victims from non-native and native Alaskan populations whose diets have been documented. This study would provide a solid link between seafood diet and the characteristics of the heart tissue at death. A clear result could lead to major future federal funding of \$3m to investigate the hypothesis that a seafood diet reduces the chance of atherosclerosis.
4. Logistics: To produce a document which lists the types and utility of remote logistic sites and transportation available for field research in Alaska. More than one half the cost of field science in Alaska is logistical. Military, State agencies and the university would be sources of information.