HB

196

COMMITTEE REPORT

HOUSE

4/1

FURTHER: FINANCE

3/12/81

(11)

Date: 3/31/81

Mr. Speaker: (HESS referral waived 3/10)

The Committee on RESOURCES has had HB 196

"An Act relating to establishment of the Alaska State Center and a state weather and climate program."

under consideration and reports it back as follows:

[/] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[ ] replace with CS for _____ [ ] same title [ ] new title

and recommends _____

[ ] AND attaches a "Letter of Intent" [ ] New Fiscal Note

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING DO PASS

Terry Gardiner

Fred Zharoff

Jennie Chin

Smith

Tom Fink

Eli Fulcliffe

MEMBERS HAVING OTHER RECOMMENDATIONS:

Terry Gardiner

Co-CHAIRMAN

H 60 (Rev. 3/81)

Information Concerning H.B. 196
A Weather and Climate Bill

This informational material is provided for the purpose of accelerating action on H.B. 196. Many major activities in Alaska are strongly affected by the weather and climate, the most notable are the aviation, marine, and public activities. Numerous other activities are affected, and all activities are subjected to the greatest extremes of inclement weather in the United States.

This informational material was prepared primarily by Jim Wise, State Climatologist, and Al Comiskey, Associate in Atmospheric Sciences at AEIDC. Mr. Wise has worked at AEIDC for the last five years and formerly was a weather officer with the U.S. Air Force for 22 years. His last assignment before retiring in 1975 was as Chief of Aerospace Sciences in the Eleventh Weather Squadron at Elmendorf AFB, which included being climatologist for the Alaskan Air Command and Chief of technical services. Al Comiskey recently retired from the position of Chief of Environmental Services for the National Weather Service. He has been in Alaska for 25 years preparing forecasts or administering to forecast services.

Background Information on Alaska's Climate Program

For approximately 20 years prior to July 1973 the state climatologist of the NWS, Alaska Region, provided climatological services within the state of Alaska for use by commerce, industry, the scientific and engineering communities, the general public, and federal, state, and local government agencies. NWS abolished its regional/state climatology program in 1973, which meant either the loss of this service entirely or transfer of responsibility to the states. In some cases state agencies assumed this work, while in others, state universities took on the public service involved. In Alaska the Arctic Environmental Information and Data Center (AEIDC), University of Alaska, began supplying many of the services formerly performed by the NWS state climatologists. Since then AEIDC has absorbed the costs of public climate information services which have not been properly funded since the federal government relinquished its responsibility.

By mutual agreement, the National Climatic Center (NCC), the Environmental Data and Information Service (EDIS), and the NWS provide certain weather observations and climate data logs, climate publications, and limited services to AEIDC on a regular basis. AEIDC maintains an Alaska climate center, which contains climate data on precipitation, temperature, clouds, winds, humidity, solar insolation, evaporation, soil temperatures, and other data sets. The climate center takes up an area of 576 square feet, and a microfiche reader/copier, workspace, and assistance are provided to its users. Most of the following services are provided free or at nominal copying costs.

1. Climate data on request by phone, letter, or personal visit.

2. Sale of climate-related and other pertinent publications available here.

3. Studies, reports, and periodicals on the application and use of climate data are avialable for use in-house.

4. Analysis, interpretation, and advice on the application of climate information to a particular project or problem.

5. Loan of selected data and publications.

6. Assistance in formulating requests for NCC data and service.

7. Expert witness in court cases involving weather and climate.

8. Lectures on aspects of applied climatology at scientific meetings, seminars, and public forums.

9. Climate-related research, such as interdisciplinary research at AEIDC, solar and wind energy use, and environmental impact statements.

Why the State needs to formalize a weather and climate program:

The National Climate Program bill was passed in September 1978. The bill provides for matching funds to help support a state climate program, provided that the State has adopted a climate program and that federally funded portions of the state program are consistent with the goals and regulations of the national program. It also requires that the state integrate its climate program with the national program and that the State establish an effective mechanism for consultation and coordination with the users. The latter two requirements have already been essentially satisfied. The single, and most glaring, deficiency is the lack of a formal state program. We urge that this remaining requirement be satisfied as soon as possible.

AEIDC has been keeping track of the number of requests for climate data and servcies since 1976. Following are the number of inquiries for information involving climate data, advice, or services:

Year	1976	1977	1978	1979	1980
Number of Contracts	400	460	520	710	960
% increase over previous year		13%	12%	27%	26%
Frequency per day (260 work da/yr)	1.5	1.8	2.0	2.7	3.7

Note that the number has more than doubled since 1977. A large portion of the increase in demand for climate services in Alaska is interest in alternative energy by Alaskans. Data supplied include wind summaries, temperature data for heating degree days, and solar radiation data.

In addition to the reasons stated above, a formalized program is needed to resolve present deficiencies in services. Following are some specific deficiencies:

1. Lack of Data. There is a lack of important data in many locations in the state. This is particularly critical in areas such as Prudhoe Bay and Dutch Harbor, where massive resource development is in progress. There are also areas of the state where wind energy is a viable resource, and though qualitative determinations have been made for most areas, site specific data are still needed to quantify this resource for specific installations. Solar radiation data have been recorded at only five locations in the state. At present, NWS is maintaining only one such station at Fairbanks. The University of Alaska is gathering these data at Fairbanks, Anchorage, and Kodiak in the fourth year of a five-year U.S. Dept. of Energy program. This program should be continued and expanded over the next few years either by the federal government or by the State.

2. Data Summaries. There are existing data available that have not been summarized. Some of these data are in state and federal government agency files, and few individuals outside the agency know they exist. Other data have been collected over the last 20 years as part of the NWS operated cooperative climate data network. One-year summaries have been made for many of these stations, but multi-year summaries were not made. Our state climate program should obtain these data and prepare summaries of them or at least make the data available locally and maintain an inventory of it. Some of these data are available on magnetic tape from the NCC and could be obtained from them and processed within the state.

3. Climate Research. Current climate research and data gathering should be monitored. AEIDC's Current Research Profile attempts this, but there is no way at present to require that people engaging in research in and about Alaska respond to AEIDC's inquiries.

4. Information. Information should be more generally publicized on the kinds of climate services available and their uses. This could be done through newspaper and magazine articles, formal courses in applied climatology at the community college and university levels, and as lectures at scientific, business, and industry professional meetings. Those engaged in transportation and construction could make much better use of resources by including seasonal climate data in their planning process.

Recommendations for legislative action:

1. Enact House Bill 196 to establish the Alaska State Weather and Climate Program.

2. Provide funds for automation of the present climate data base. Initially, the program should start with the existing data tapes available from the NCC and the computer programs to process these data. As part of the continuing program, we should acquire these data on a monthly or annual basis to provide more up to date climate services.

3. Initiate a public information program on available climate and weather services.

4. Provide funds for performing the additional services generated by agencies and the public.

5. Provide funds to prepare and implement a state weather and climate observations program including the following:
   a. Purchase observation and communications equipment.
   b. Initiate a state operated weather and climate data gathering and observations network to improve both real-time weather services and the state climate data base.
   c. Select and train observers for the state-operated network.

These matters and other agency and public interests could form the basis for committee hearings.

I. REQUEST

Bill/Resolution No. HOUSE BILL NO. 196 (Page 1 of 3)

Title An Act relating to establishment of the Alaska State weather and Climate Program and Alaska State Climate Center

Requested by the Rules Committee by Request of the Governor Date:

II. FISCAL DETAIL

Agency Affected University of Alaska

Program Category Affected Public Information Service

BRU, Program, or Subprogram(s) Affected Org. Research, Arctic Environmental Info & Data Cn

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

		FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
100	PERSONAL SERVICES		77.7	83.2	89.0	95.2	101.9
200	TRAVEL		6.8	7.7	8.8	10.0	11.4
300	CONTRACTUAL		16.4	18.7	21.3	24.3	27.7
400	COMMODITIES		4.6	5.2	5.9	6.7	7.6
500	EQUIPMENT		8.5	2.9	1.6	1.6	1.6
600	LAND & STRUCTURES						
700	GRANTS, CLAIMS, ETC.						
	TOTAL		114.0	117.7	126.6	137.8	150.2

FUNDING (Thousands of Dollars)

GENERAL FUND		114.0	117.7	126.6	137.8	150.2
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME *		3	3	3	3	3
PART TIME		1	1	1	1	1
TEMPORARY						

*Of these, one position is new

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

This bill establishes formally a state weather and climate program to recognize and improve the existing program and develop additional program elements.

Since July of 1973 the University of Alaska's Arctic Environmental Information and Data Center has absorbed the costs of public climate information services previously furnished by the National Weather Service's regional/state climatology program. During FY81 the center dedicated 7 man months to this effort. Due to increasing demand for such services caused by both government and private interest in alternative energies, resource development and transportation, etc., the need arises for an increase in the level of effort by 21 man months,

(see attached page 2)

IV. DATE February 4, 1981 PREPARED BY Willy E. Rensenbrink

AGENCY Arctic Environmental Information and Data Center, University of Alaska

PHONE: 279-4523

Original: Legislative Finance

cc: Budget and Management

Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/80

making for a total dedicated 28 man months. The above personal service dollar figure is based on 6 additional man months for a combination of 2 atmospheric scientists, 8 additional man months of a science technician, and 6 man months for a new position of data control clerk.

This will also provide for increased user oriented services through: design of wind data summaries for wind power; environmental data information specifically for solar energy; climatic data information for construction design planning, etc.; initiation of summaries and the extension of record periods of existing summaries by computer processing of voluminous raw data.

Years subsequent to FY82 have been estimated by using a 7% increment factor in personal services and a 14% inflationary factor in travel, contractual, and commodities. These factors will be subject to changes in the actual price structures.

PERSONAL SERVICES:
(incl. Staff Benefits)

	MAN MONTHS TOTAL						
	FY81 GF	RF	FY82 GF	RF	This budget GF	Amount
J. Wise, Atmosph.Sci.	4	8	9	3	5	$ 29,070
A. Comiskey, Atmosph.Sci.	1	5	3	3	2	10,712
R. Becker, Sci. Technician	2	10	10	2	8	22,504
Data Control Clerk Gr. 12	-	-	6	6	6	15,438
			Total Personal Services			77,724

TRAVEL:		
In-State Meetings & Conferences	2,800	
Out-of-State Meetings and Confs.	4,000	
Total Travel		6,800
CONTRACTUAL:		
Programming Consultant	5,700	
Duplicator rental	2,050	
Microfilm services	1,900	
Computer charges/time sharing	2,300	
Communications	3,250	
Equipment maintenance and misc.	1,200	
Total Contractual Services		16,400
COMMODITIES:		
Climate data acquisition	1,220	
Office and computer supplies	2,800	
Storage boxes and misc.	580	
Total Commodities		4,600
EQUIPMENT:		
Computer I/O equipment	6,800	
Microfiche & tape storage cabs.	1,150	
Calculator	550	
Total Equipment		8,500
TOTAL PROJECTED FY82 EXPENDITURES		$114,024

February 18, 1981

The Honorable Jim Duncan
Speaker of the House
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Mr. Speaker:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill relating to the establishment of a state climate and weather program and a state climate center. This bill was originally introduced in the last legislature as HB 413. This version is virtually identical to the House Resources Committee's CSHB 413.

The program would begin with the preparation of a plan, updated on a biennial basis, for the acquisition and dissemination of climate related data and information. The plan would include an assessment of the state's climate data and information needs, a basis for establishing priorities among these needs, and a program for orchestrating activities directed toward meeting these needs. A State Climate Planning Advisory Group, composed of members from organizations which provide climate related information and data and from the public sector and organizations which use this information, would participate in preparing and updating the plan.

In order to implement the plan, the bill would provide that the state climate center be established within the University of Alaska. The center would operate and maintain a central repository for information and data relating to the weather and climate of Alaska, provide weather and climatological information and technical advisory services to climate information users, and cooperate with other state and federal agencies in order to satisfy the intergovernmental climate program participation requirements of the National Climate Program Act.

In addition, the center would be authorized to investigate the characteristics of Alaska's climate;

[SEE ATTACHED PAGE 2]

research and assess the impact of climate fluctuations on the availability of solar, wind, and water resources; make available the results of all research undertaken by the center; contribute to the general education of the public on the climate of the state; and enter into cooperative arrangements with other organizations engaged in climate-related research.

This bill is consistent with the provisions of the National Climate Program Act, Public Law 95-367, under which the state may be eligible to receive up to a 50 percent grant to cover the costs of conducting climate-related studies and providing climate-related services.

Sincerely,

S/JSH

Jay S. Hammond
Governor