THE ALASKAN SCIENCE CONFERENCE

On 9-11 November 1950 an Alaskan Science Conference was held in Washington under the auspices of the National Academy of Sciences-National Research Council. More than 300 scientists, many of whom are Alaskan specialists, attended the Conference at the invitation of the Research Council. The Conference was organized into ten sections in three divisions and each section designated a Resolutions Subcommittee to draft proposed resolutions of interest to that section. The proposals were then reviewed by the entire Conference and were approved, modified, or eliminated. The following resolutions, therefore, represent the final action of the Alaskan Science Conference.

I. General Recommendations

1. *Scientific information centres*

That scientific information centres be established in Alaska and the States to provide information relative to scientific research and to facilitate cooperation between individuals, organizations, and Government agencies concerned with Alaskan scientific research and development in collaboration with the University of Alaska and the Arctic Institute of North America.

2. *Future conferences*

That future scientific conferences relative to Alaska be held, and that they be held in Alaska when feasible.

3. *Establishment of committees*

That the National Research Council establish:

a. Appropriate committees representing interested organizations, formed on a permanent basis for furthering the study of interrelationships of physical, biological, and human factors affecting fisheries, wildlife, forests, etc.

b. A committee on Alaskan anthropology to survey the present needs and possibilities for field research and to act as a clearinghouse and advisory committee to governmental agencies, private institutions, and scientists on problems concerning anthropological research, preservation of antiquities, and native welfare in Alaska.

c. A continuation committee to begin functioning immediately under the chairmanship of John C. Reed to assist the National Research Council in implementing the recommendations of the Conference and to arrange for the early publication of the Conference proceedings.

4. *Exchange of information*

That there be utmost freedom in exchanging Alaskan scientific data in order to stimulate and coordinate research; and to this end the Conference strongly recommends that, insofar as the national interests permit, scientific investigations and their results in Alaska be unclassified and such information as is now classified be made available for general scientific use as soon as possible.

5. *Publication of scientific findings*

That every effort be made to further the publication, in appropriate scientific journals, of reports on systematic, ecologic, and other comprehensive studies in the sciences relating to arctic and subarctic research; and that, where such reports are not appropriate for publication in the journals, funds be secured for their publication as special monographs or reports.

6. *Field research centres*

That the feasibility be explored of establishing in Alaska specialized research centres for:

a. Subarctic marine investigations;
b. Wildlife research (nonmarine);
c. Studies in forestry;
d. A permanent research establishment for public health and medicine, such as the proposed Arctic Health Institute;
e. Studies of snow, glacier ice, and sea ice in the temperate, subarctic, and arctic zones of Alaska and adjacent areas.

In the event that the establishment of such specialized research centres does prove feasible, active steps to start them should be undertaken without delay, and when possible such centres should be established in close proximity to and in working relationship with the University of Alaska.

7. *Aids to maximum utilization of existing and planned facilities*

a. That well-coordinated, long-range, year-round research programs in arctic and subarctic studies at universities be encouraged, such as those programs in operation at the University of Alaska, the University of Washington, the University of Minnesota, and the Catholic University of America.
b. That agencies responsible for the planning and support of research programs in Alaska be reminded of the need for continued long-term studies extending over sufficient cycles of pertinent natural phenomena, as well as for suitably planned short-term investigations, and be urged therefore to provide for continued work of adequate duration.
c. That as part of the mechanics of staffing research in the several fields of science involved, arrangements be made for research fellowships at varying financial grades for competent graduate students and for grants-in-aid to established scholars, including local inhabitants of Alaska; that applicants for such fellowships or grants-in-aid be carefully screened for scholarly competence and suitability for Alaskan work.
d. That Federal agencies, foundations, and universities be encouraged to participate in Alaskan research, with emphasis on the value of interdisciplinary research.
e. That the military services be encouraged to further promote and assist scientific studies in line with their operational duties in the Alaskan areas, and that the research of nonmilitary Federal services be expanded in order that the potentialities of Alaska may be realized and its defence fostered.
f. That Federal aid to research be continued and expanded through such means as the programs of the Pittman-Robertson bill and the Office of Naval Research.
g. That the needs of and opportunities for Alaskan research be brought to the attention of the National Science Foundation.

8. *Conservation*

That studies be made to determine what areas in Alaska are suitable for designation as wildlife habitat combined with wilderness uses, from which shall be excluded uses incompatible with such purposes, such as private holdings, highways, etc. Specific projects would include critical caribou ranges to be kept as wilderness areas and certain waterfowl breeding areas.

II. Recommendations Pertaining to International Cooperation

1. That, when appropriate, scientists of other nations be encouraged to participate in field operations in Alaska. The value of this type of cooperative research has

been and is being thoroughly demonstrated in joint Canadian-United States research activities.

2. That, in carrying out the recommendations of this Conference, the National Research Council collaborate actively with the Arctic Institute of North America, which has contributed so effectively to arctic research.

III. Specific Recommendations

1. *Agricultural land-use planning*

That the appropriate agency or agencies, in order to facilitate the planning and settlement of available arable lands, be urged to continue and extend the survey and classification of soils and environments in those areas deemed most promising for potential agricultural development.

2. *Development of vegetation and of soils*

That comprehensive studies be made of agricultural climatology as well as of the development of vegetation and of soil on recent surfaces, or potential soils exposed at known or discoverable dates, for which study Alaska presents exceptional opportunities.

3. *Botanical exploration*

That attention be called to the many botanically unexplored regions in Alaska in which extensive and intensive collecting needs to be done, for example, in the regions of the Brooks Range, Kuskokwim Basin, the interior of the Seward Peninsula, and the Alaska Range, and furthermore that systematic work on cryptogams be strongly encouraged.

4. *Vegetation and frost action*

That the importance of field studies on the vegetation of Alaska in relation to frost action in the soils be emphasized because of its bearing upon the structure and development of the vegetation, and through these, upon road and railroad building, air fields and other military installations, water-supply systems, sewage and garbage disposal, construction sites, and development of agricultural and range lands.

5. *Vegetation and animal life*

That other field studies of vegetation in Alaska, in relation to utilization by domestic and wild animals, be encouraged.

6. *Plant sciences*

That field research in plant physiology, anatomy, cytogenics, and other plant sciences be carried on in Alaska. This will require mobile or temporary laboratories adequately equipped.

7. *Environmental health and sanitation*

That studies be initiated, and, if already underway, be intensified in the following sanitation problems under low-temperature conditions, and that these studies be directed toward obtaining information that can be used to assist and protect both civil and military populations of Alaska, including very small and isolated groups of individuals.

a. Water supplies–feasible methods of attaining and maintaining safe water supplies.
b. Water pollution–studies necessary of both inland and coastal waters.
c. Sewage, excreta, and garbage disposal.
d. Insect control–studies on the species, flight range, breeding habits, etc., of mosquitoes and other biting insects to develop feasible control measures.
e. Housing.

8. *Life histories*

That research on the life histories of Alaskan wildlife species be encouraged through the Fish and Wildlife Service, universities, and other agencies.

9. *Habitat changing factors*

That cooperative research programs which involve the effect of fire, logging, and other habitat-changing factors on wildlife be augmented.

10. *Applied physiology*

That the maintenance of a broad research program should include primarily the fundamental studies which form the basis for applied physiology and should also include intensive studies on problems immediately related to agriculture and animal husbandry, fisheries, industries, general medicine, public health, preventive medicine, and military medicine.

11. *Geophysical Institute*

That the Conference express to the Delegate to Congress from Alaska, to the Government of Alaska, and to the Regents and President of the University of Alaska its gratification at the establishment of a Geophysical Institute at the University and the development of a comprehensive program of training and investigation in geophysical subjects of unique importance to Alaska.

12. *High altitude cosmic ray studies*

That full advantage be taken of the unique combination of high mountains at high latitudes, in furthering cosmic ray studies.

13. *Publication of weather data*

That additional publication be made of comprehensive basic weather and climatic data which are necessary for research, for governmental projects, and also for the use of private enterprise in developing the resources of Alaska.

14. *Ice islands*

That advantage be taken of the large ice islands in the Arctic Ocean to establish scientific field bases for operations extending over adequate periods of time.

15. *Climatic change*

That questions of climatic change in Alaska, both in the recent past and the near future, be investigated through studies dealing with such subjects as the advance and retreat of glaciers, botanic distributions by pollen analysis, etc., and permafrost, as well as through climatic and meteorological analysis.

16. *Mapping*

That current mapping programs for Alaska, including topographic and planimetric mapping, charting of coastal waters, aerial photography, and geodetic surveys be speeded up in order to provide as rapidly as possible the basic map information essential to natural-resource surveys, scientific research, national defence, and economic development.

17. *Geological investigations*

That geologic mapping and other investigations in the geologic field be continued and expedited to contribute to more adequate understanding of the basic geology of the Territory.

18. *Archaeological sites*

That more active and effective measures be taken to preserve archaeological sites in Alaska, many of which are now being destroyed despite provisions of the Antiquities Act of 1906.

IV. Final Resolutions

1. *Nonmilitary support of research*

That the Conference express its appreciation for the support of scientific research in Alaska, particularly by the following nonmilitary Government or Government-associated agencies: the Department of the Interior, the Department of Agriculture, the Department of Commerce, the Public Health Service, the United States Coast Guard, and the Smithsonian Institution.

2. *Military support of research*

That the Conference express to the Department of Defense its deep appreciation for the support being given to a wide range of scientific investigations in Alaska, for example, that being rendered by the Office of Naval Research through the Arctic Research Laboratory at Point Barrow.

3. *Territorial support of research*

That the Conference express to the Territory of Alaska its appreciation for research being carried on under Territorial auspices and for the active support being given to research by the University of Alaska.

4. *Support of the Conference*

That the Conference express its appreciation to the National Academy of Sciences-National Research Council, the Department of the Interior, the Department of Agriculture, the United States Army, the United States Navy, the United States Air Force, the Public Health Service, and to the Arctic Institute of North America for providing essential facilities and financial assistance which were major factors in making the Conference possible.