Glaciers

A conference on surging glaciers was held at the Center for Continuing Education of the Banff School of Fine Arts, Banff, Alberta, Canada, 6–8 June 1968. Particular emphasis was placed on the possible geologic effects of surging glaciers, both now and in the past. Some attention was also given to the hydrology of such glaciers. Because the Steele Glacier, in the southwest Yukon, is one of the better known surging glaciers, it was the topic of several papers.

It was apparent from the beginning of the conference that the term "surging glacier" was used by the participants in different ways. At least three field criteria were suggested as indicative of a surge: (i) an unusually high velocity of the glacier; (ii) a depression or collapse of the ice surface in the accumulation zone of the glacier; and (iii) the presence of intensely crevassed or fractured surface of the glacier. A surprisingly large number of glaciers seem to have surged, but the distribution of this type of glacier is not well known, mainly because of the difficulties of access to the areas of their occurrence. Almost all information on surging glaciers is from areas of mountain glaciers. One paper and some informal discussion brought out the fact that there is no synchroneity of surges of mountain glaciers.

The possibility of glacial surges at the margins of continental glaciers is of great importance to Pleistocene geologists, because the interpretations of glacial history are now based on the assumption that ice fronts were stable for relatively long time spans in areas of prominent recessional moraines, and that synchroneity existed in advances along the margins of different ice lobes. The means of recognition in the geologic column of the deposits from a surging glacier are little known. N. W. Rutter (Geological Survey of Canada) presented the results of a comparative study of the deposits of mountain glaciers. One glacier had surged in the past, and the other lacked any evidence for a surge. There was no clear-cut orientation in the till fabric of the moraine of the surged glacier.

The conference concluded with a panel discussion on the needs for future study of surging glaciers. The panel consisted of Walter A. Wood, Aleksis Dreimanis, A. E. Harrison, and L. A. Bayrock. From the discussion, a number

of conclusions could be drawn: (i) a need for standardization of the terminology of surging glaciers; (ii) a need for further study of the physics of the ice in such glaciers, preferably starting on glaciers on which a surge is anticipated; (iii) a need for more data on the weather in the area of such glaciers; and (iv) a need for a careful examination of the stratigraphic record, with the purpose of recognizing possible large-scale glacier surges during the Pleistocene.

The conference was sponsored jointly by the National Research Council of Canada and the University of Alberta.

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Calendar of Events

National Meetings

November

8–11. American **Physical** Soc., Plasma Physics Div., Austin, Tex. (W. E. Drummond, Physics Bldg. 330, Univ. of Texas, Austin 78712)

10–15. American Soc. of **Agronomy**, New Orleans, La. (M. Stelly, c/o The Society, 677 S. Segoe Rd., Madison, Wis. 53711)

10–15. **Crop Science** Soc. of America, New Orleans, La. (Secretary, The Society, 677 S. Segoe Rd., Madison, Wis. 53711)

10–15. American Assoc. for **Inhalation Therapy**, Houston, Tex. (M. T. Bowers, 4075 Main St., Riverside, Calif. 92501)

11–13. Soc. of **Engineering Science**, 6th technical mtg., Princeton, N.J. (A. C. Eringen, Dept. of Aerospace and Mechanical Sciences, Engineering Quadrangle, Princeton Univ., Princeton 08540)

11–13. **Genetics** Soc. of America, Boston, Mass. (B. Wallace, Dept. of Genetics, Cornell Univ., Ithaca, N.Y.)

11–14. American **Nuclear** Soc., Washington, D.C. (Executive Secretary, 244 E. Ogden Ave., Hinsdale, Ill. 60521)

11–15. Society of the **Plastics Industry**, Inc., Chicago, Ill. (The Society, 250 Park Ave., New York 10017)

11–15. American College of **Preventive Medicine**, Detroit, Mich. (E. A. Piszcek, 6410 N. Leona Ave., Chicago, Ill. 60646)

11–15. American **Public Health** Assoc., 96th, Detroit, Mich. (Executive Director, 1790 Broadway, New York, N.Y.)

13–15. Eastern **Analytical** Symp., New York, N.Y. (L. M. Brancone, Lederle Labs., Pearl River, N.Y. 10965)

13–16. National Easter Seal Soc. for **Crippled Children and Adults**, Boston, Mass. (Natl. Easter Seal Soc., 2023 W. Ogden Ave., Chicago, Ill. 60612)

14–16. Southern **Thoracic Surgical** Assoc., San Juan, Puerto Rico. (H. H. Seiler, 517 Bayshore Blvd., Tampa, Fla. 33606)

15–16. American **Psychiatric** Assoc., Chicago, Ill. (L. Rudy, Illinois Psychiatric