

## GLACIOLOGICAL LITERATURE

THIS is a selected list of glaciological literature on the scientific study of snow and ice and of their effects on the Earth; for the literature on polar expeditions, and also on the "applied" aspects of glaciology, such as snow ploughs, readers should consult the bibliographies in each issue of *Recent Polar Literature* (supplement to the *Polar Record*). For Russian material the system of transliteration used is that agreed by the U.S. Board on Geographic Names and the Permanent Committee on Geographical Names for British Official Use in 1947. Readers can greatly assist by sending reprints of their publications to the Society, or by informing Dr J. W. Glen of publications of glaciological interest. It should be noted that the Society does not necessarily hold copies of the items in this list, and also that the Society does not possess facilities for microfilming or photocopying.

### CONFERENCES

- DIONNE, J.-C., ed. *Le glacier. Premier colloque international sur l'action géologique des glaces flottantes*, 20-24 avril 1974. *Revue de Géographie de Montréal*, Vol. 30, Nos. 1-2, 1976, [ii], 236 p. [Symposium held in Quebec, Canada. Contents include: A. Guilcher, "Introduction au premier colloque international sur l'action géologique des glaces flottantes", p. 5-7; H.-E. Reineck, "Concluding remarks to the first international symposium on the geological action of drift ice", p. 8; J.-R. Vanney et L. Dangeard, "Les dépôts glaciomarins actuels et anciens", p. 9-50; A. Moign, "L'action des glaces flottantes sur le littoral et les fonds marins du Spitsberg central et nord-occidental", p. 51-64; R. J. Knight and R. W. Dalrymple, "Winter conditions in a macrotidal environment, Cobequid Bay, Nova Scotia", p. 65-85; D. R. Sasseville and F. E. Anderson, "Sedimentological consequences of winter ice cover on a tidal flat environment, Great Bay, New Hampshire", p. 67-93; E. H. Owens, "The effects of ice on the littoral zone at Richibucto Head, eastern New Brunswick", p. 95-104; J. D. Hume and M. Schalk, "The effects of ice on the beach and nearshore, Point Barrow, Arctic Alaska", p. 105-114; A. D. Short, "Observations on ice deposited by waves on Alaskan beaches", p. 115-22; R. B. Taylor and S. B. McCann, "The effect of sea and nearshore ice on coastal processes in [the] Canadian Arctic Archipelago", p. 123-32; J.-C. Dionne, "Le glacier de la région de la Grande Rivière, Québec subarctique", p. 133-53; W. Brochwicz-Lewinski and S. Rudowski, "The action of ice and frost in the development of moderate climate Baltic beaches", p. 155-60; J. Dozier, B. D. Marsh and W. M. Marsh, "Ice cusp formation on Lake Superior icefoots", p. 161-69; J. Dozier, J. Mitchell and W. M. Marsh, "Modeling of backshore slope processes during the cold season, south shore of Lake Superior", p. 171-77; W. M. Marsh, M. L. Bryan and J. Dozier, "Aerial imagery of Lake Superior coastal ice", p. 179-86; W. P. Adams and S. A. Mathewson, "Approaches to the study of ice-push features, with reference to Gillies Lake, Ontario", p. 187-96; H.-E. Reineck, "Drift ice action on tidal flats, North Sea", p. 197-200; R. A. Davis, V. Goldsmith and Y. E. Goldsmith, "Ice effects on beach sedimentation: examples from Massachusetts and Lake Michigan", p. 201-06; D. J. W. Piper, "The use of ice rafted marine sediments in determining glacial conditions", p. 207-12; A. Cailleux, "Formes et dépôts nivéo-éoliens sur le pied de glace, à Poste-de-la-Baleine, Québec subarctique", p. 213-19; D. Lagarec, "Champs de blocs glaciels, actuels et anciens, au Golfe de Richmond, nouveau-Québec", p. 221-25; P. Guimont and C. Laverdiere, "Aspects glaciels d'une plage du lac Deux-Montagnes, parc Paul-Sauvé, Québec", p. 227-32; L.-E. Hamelin, "La famille du mot 'glacier'", p. 233-36.]
- HOOD, D. W., and BURRELL, D. C., ed. *Assessment of the Arctic marine environment: selected topics*. Fairbanks, Alaska, Institute of Marine Science, University of Alaska, [c1976]. xi, 468 p. (Institute of Marine Science, University of Alaska. Occasional Publication No. 4.) [Based on symposium held 11-15 August 1975 in Fairbanks, Alaska, in conjunction with the third International Conference on Port and Ocean Engineering under Arctic Conditions. Articles relevant to glaciology include: A. F. Treshnikov, "Recent Soviet research in the Arctic", p. 55-59; C. H. Everts, "Sedimentation in a 'half-tide' harbor. Part 2. Sedimentation during periods of ice-cover", p. 147-60; C. M. Hoskin and S. M. Valencia, "Sediment transported by ice-rafting in southcentral Alaska", p. 173-85.]
- [HYDROLOGY OF GLACIERS.] Vortragsveranstaltung, 9. Februar 1977. *Technische Universität München. Sonderforschungsbereich 81*, [1977], [iv], 101 p. [Symposium on discharge in rivers and in and from glaciers, held in Munich in February 1977. Contents include: F. Wilhelm, "Die Bedeutung isotopehydrologischer Verfahren im Rahmen einiger Teilprojekte des SFB 81", p. 5-18; J. Martinec, "Bestimmung der Verweilzeit des Schmelzwassers in Gebirgsgebieten durch Tritium-Messungen", p. 19-28; A. Herrmann, W. Rauer and W. Stichler, "Isotopenmessungen an Niederschlag und Abfluss im Lainbachgebiet", p. 30-42; A. Herrmann and W. Stichler, "Stabile Isotope in einer randalpinen Schneedecke", p. 43-65; H. Oerter, "Wasserbewegung in einem Gletscher, dargestellt an dem Feldarbeiten auf dem Vernagtferner", p. 67-91; O. Reinwarth, "Bemerkungen zu einem Film über den Ausbruch des vom Morenogletschers, Patagonien, gestauten Sees", p. 93-100.]
- [ICE SHEETS: RADIOACTIVE WASTE DISPOSAL.] Workshop I; ice as a depository. *Modern Geology*, Vol. 6, No. 1, 1976, p. 43-47. [Part of colloquium on radioactive waste disposal, held in Montreal, Canada, 3-4 October 1973. Discussion presented here is based on papers published in same issue: E. J. Zeller, E. A. Angino and D. F. Saunders, "Antarctica, a potential disposal site for the world's high-level radioactive waste", p. 31-36, and W. S. B. Paterson, "Radioactive waste in Antarctica: some glaciological aspects", p. 37-42.]
- LEGGET, R. F., ed. *Glacial till. An interdisciplinary study*. [Ottawa], Royal Society of Canada in co-operation with the National Research Council of Canada, [c1976]. x, 412 p. (Royal Society of Canada Special Publications, No. 12.) [Conference held in Ottawa, 17-18 February 1975. Papers presented: A. Dreimanis, "Tills:

their origin and properties", p. 11-49; J. S. Scott, "Geology of Canadian tills", p. 50-66; M. M. Fenton and A. Dreimanis, "Methods of stratigraphic correlation of till in central and western Canada", p. 67-82; P. F. Karrow, "The texture, mineralogy, and petrography of North American tills", p. 83-98; R. W. May and A. Dreimanis, "Compositional variability in tills", p. 99-120; E. A. Christiansen and S. H. Whitaker, "Glacial thrusting of drift and bedrock", p. 121-30; R. J. St. Arnaud, "Pedological aspects of glacial till", p. 133-55; C. R. De Kimpe, G. A. Bourbeau and R. W. Baril, "Pedological aspects of till deposits in the Province of Quebec", p. 156-69; D. F. Acton and J. B. Fehrenbacher, "Mineralogy and topography of glacial tills and their effect on soil formation in Saskatchewan", p. 170-85; N. Keser, "Douglas fir growth on two Vashon tills and associated surficial materials", p. 186-202; W. W. Shilts, "Glacial till and mineral exploration", p. 205-24; R. Kujansuu, "Glaciogeological surveys for ore-prospecting purposes in northern Finland", p. 225-39; P. LaSalle, B. Warren and P. Gilbert, "Till sampling at depth in the Royun-Val d'Or area", p. 240-48; D. W. Alley and R. M. Slatt, "Drift prospecting and glacial geology in the Sheffield Lake-Indian Pond area, northcentral Newfoundland", p. 249-66; V. Milligan, "Geotechnical aspects of glacial tills", p. 269-91; G. S. Boulton, "Till development of geotechnical properties in glacial tills", p. 292-303; G. E. Grisak, J. A. Cherry, J. A. Vonhof and J. P. Blumele, "Hydrologic and hydrochemical properties of fractured till in the interior plains region", p. 304-35; R. M. Quigley and T. A. Ogunbadejo, "Till geology, mineralogy and geotechnical behavior, Sarnia, Ontario", p. 336-45; A. A. Loiselle and J. E. Hurtubise, "Properties and behaviour of till as construction material", p. 346-63; J. Peters and J. McKeown, "Glacial till and the development of the Nelson River", p. 364-80; S. W. E. Pepler and I. D. MacKenzie, "Glacial till in winter dam construction", p. 381-90; W. J. Eden, "Construction difficulties with loose glacial tills on Labrador Plateau", p. 391-400.]

- [PORT AND OCEAN ENGINEERING UNDER ARCTIC CONDITIONS.] *Proceedings of the third International Conference on Port and Ocean Engineering under Arctic Conditions held in Fairbanks, Alaska, University of Alaska, 11-15 August 1975.* Fairbanks, Alaska, Institute of Marine Science, University of Alaska, [1976]. 2 vols.: xviii, 686; vii, 687-1382 p. [Includes the following papers: K. Ahlnäs and G. Wendler, "Sea ice conditions in the Chukchi, Beaufort, east Siberian and northern Bering seas during March 1973, 1974, and 1975 as seen from the NOAA 2, 3, and 4 satellites", p. 83-104; J. C. Barnes, C. J. Bowley and M. D. Smallwood, "Monitoring Arctic sea ice using Landsat imagery", p. 105-27; K. O. L. F. Jayaweera and S. Marvill, "Techniques for interpreting IR satellite imagery for sea ice research", p. 129-39; L. A. LeSchack, "Applications of submarine under-ice profiles and satellite IR data to solving Arctic offshore problems", p. 141-62; R. F. Carlson, "A theory of spring river discharge into the Arctic icepack", p. 165-66 (abstract only); E. C. Chen and B. F. Scott, "Aging characteristics of crude oil on ice", p. 167 (abstract only); J. H. Getman, L. A. Schultz and P. C. Deslauriers, "Tests of oil recovery devices in ice covered waters", p. 169-87; E. L. Lewis, "Oil in sea ice", p. 207-10 (abstract only); A. Assur, "Sea ice engineering", p. 231-34 (abstract only); J. L. Burdick, "Tensile creep-rupture of polycrystalline ice", p. 235-46; K. Hutter, "The significance of the shear rigidity and of the Poisson ratio for sea ice plates", p. 247-68; H. Ito and F. Müller, "Measurement of sea ice force by the strain rosette method in the North Water area", p. 269-84; P. R. Johnson, "An early desalination and ice structures project using natural freezing", p. 285 (abstract only); H. R. Kivisild, "Ice mechanics", p. 287-313; H. Kohnen, "Glaciological investigations for the improvement of ice-going ship design carried out on the sea ice near Pond Inlet, N.W.T. (northern Baffin Island) in spring, 1972", p. 313-31; A. Kovacs, A. J. Gow and W. F. Dehn, "Islands of grounded sea ice", p. 333-48; M. Määttänen, "On the flexural strength of brackish water ice by *in situ* tests", p. 349-59; R. D. Nelson, "Internal stress measurements in ice sheets using embedded load cells", p. 361-73; D. E. Nevel and F. D. Haynes, "Interpretation of the tensile strength of ice under triaxial stresses", p. 375-87; T. Pousi, M. Luukkala and E. Palosuo, "A narrow beam sonar to measure the submarine profile of an ice ridge", p. 389-406; R. Q. Robe, "Height to draft ratios of icebergs", p. 407-15; L. H. Shapiro, "A preliminary study of ridging in landfast ice at Barrow, Alaska, using radar data", p. 417-25; L. H. Shapiro and E. R. Hoskins, "The use of flatjacks for the *in situ* determination of the mechanical properties of sea ice", p. 427-36; T. Tabata and T. Ishida, "On the movement of pack ice", p. 437-38 (abstract only); K. D. Vaudrey and M. G. Katona, "An elastic structural analysis of floating ice sheets by the finite element method", p. 439-53; R. L. Weaver, R. G. Barry and J. D. Jacobs, "Fast ice studies in western Davis Strait", p. 455-66; R. Colony, "The simulation of Arctic sea ice dynamics", p. 469-86; A. Heiberg, "AIDJEX field operations to August 1975", p. 487-93; M. McPhee, "Water stress sub-model for the AIDJEX model", p. 495-508; K. R. Maser, "A mechanical model for the deformation of Arctic pack ice", p. 509-11 (abstract only); R. S. Pritchard and R. T. Schwaegler, "Applications of the AIDJEX ice model", p. 513-26; W. J. Stringer and S. A. Barrett, "Ice motion in the vicinity of a grounded floeberg", p. 527-51; N. Borgert, "Ice conditions along the Alaskan coast during breakup", p. 555 (abstract only); E. Mäkinen, A. Keinonen and A. Laine, "Ice resistance measurements in ridges with I/B APU in the Baltic Sea", p. 611-43; J. V. Danys and F. G. Bercha, "Determination of ice forces on a conical offshore structure", p. 741-51; M. Määttänen, "Experiences of ice forces against a steel lighthouse mounted on the seabed, and proposed constructional refinements", p. 857-69; A. R. McKay, "Estimating pile icing under northern climates and tidal conditions", p. 871-72; D. V. Reddy, P. S. Cheema and A. S. J. Swamidass, "Ice force response spectrum modal analysis of offshore towers", p. 887-910; R. J. Robbins, P. H. Verity, T. P. Taylor and M. Metge, "Techniques for the study of ice/structure interaction", p. 911-24; P. Tryde, "Ice forces acting on inclined wedges", p. 957-60; P. Tryde, "Ice forces acting on slender structures", p. 961-63; M. C. Brewer, "The seaward extension of permafrost off the northern Alaska coast", p. 987-88 (abstract only); J. O. Hakala and J. C. Balch, "Permafrost: from the bottom up", p. 1009 (abstract only); W. D. Harrison and T. E. Osterkamp, "Theoretical models for sub-sea permafrost", p. 1011-24; J. A. Hunter and A. S. Judge, "Geophysical investigations of sub-sea permafrost in the Canadian Beaufort Sea", p. 1025-57; J. C. Rogers, L. H. Shapiro, L. D. Gedney and D. Van Wormer, "Near shore permafrost in the vicinity of Pt. Barrow, Alaska", p. 1071-82.]

[SEA, RIVER AND LAKE ICE.] Symposium kring isfrågor. *Ingenjörsvetenskapsakademien. Meddelande* 190, 1974, 163 p. [Symposium on floating ice and related engineering problems held in Stockholm, Sweden, 6 June 1974. Includes following articles: P. Larsen, "Internationell isforskning", p. 9-17; S. Fremling, "Isundersökningar i inlandsvatten vid hydrologiska byrån på SMHI", p. 18-42; P. Tryde, "Isforskning i Danmark—översigt", p. 43-52; T. Carstens, "Råker i innsjöer", p. 53-70; M. Määttänen, "On the flexural strength of brackish water ice", p. 71-80; S. Lindgren, "Istryck vid temperaturhöjningar", p. 81-93; P. Tryde, "Iskrafter virkende på slanke konstruktioner og på kile med skrånende forside", p. 94-112; N.-O. Larsson, "Istryck vid broar", p. 113-19; A. Engelbrekton, "Istryck mot utsjöfyrrar", p. 120-34; P. Larsen, "Strømning i istäckta kanaler", p. 135-43; T. Thompson, "Havsisforskning", p. 144-57; A. Christenson, "Havsis och vintersjöfart", p. 158-62. Most articles have English summaries, where necessary.]

## GENERAL GLACIOLOGY

- ARMSTRONG, T. E., and others. Proposed new terms and definitions for snow and ice features, by T. [E.] Armstrong, B. [B.] Roberts and C. [W. M.] Swithinbank. *Polar Record*, Vol. 18, No. 116, 1977, p. 501-02. [Invites comments on new terms and definitions: iceberg, ice creek, ice dome, ice ramp, ice rumples.]
- BARKOV, N. I. Glaciological studies with the U.S. Antarctic Research Program, 1974-1975 and 1975-1976. *Antarctic Journal of the United States*, Vol. 12, Nos. 1-2, 1977, p. 11-14. [Experiences of Russian glaciologist stationed at McMurdo.]
- BARNES, C. R., ed. The geosciences in Canada—1976. A status report. *Canada. Geological Survey. Paper* 77-6, 1977, [ii], 75 p. [Includes: G. K. C. Clarke, "Glaciology", p. 23-24; W. O. Kupsch, "Permafrost", p. 29; B. Michel, "Snow and ice", p. 31-32.]
- CHIZHOV, O. P. Oledneniye severnoy polyarnoy oblasti [Glaciation of the north polar area]. *Rezultaty Issledovaniy po Mezhdunarodnym Geofizicheskim Proyektam*, [Unnumbered series], 1976, 240 p. [Past and present land and sea ice. English summary, p. 213-14.]
- CROSBY, R. L. Ice engineering research at CRREL. *Arctic Bulletin*, Vol. 2, No. 10, 1977, p. 177-81. [Describes recent research at the U.S. Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire, U.S.A.]
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- HARRIS, D. H. Ice mantles, and the size of interstellar grains. *Dissertation Abstracts International*, B, Vol. 38, No. 1, 1977, p. 233-B. [Interpretation of infra-red photometry data in terms of low ice abundance due to dust temperature of 50 K. Abstract of Ph.D. thesis, University of Arizona, 1976. University Microfilms order no. 77-15336.]
- KRENKE, A. N. Ob urovnyakh glyatsiologicheskikh issledovaniy i o predmete lednikovedeniya [On the levels of glaciological studies and the subject of glaciology]. *Materialy Glyatsiologicheskikh Issledovaniy. Khronika. Obsuzhdeniya*, Vyp. 27, 1976, p. 27-36. [Broad outline of the study of glaciology. English summary, p. 35-36.]
- KUUVINEN, K. C., and SPLETTSTOESSER, J. F. Greenland Ice Sheet Program. *Arctic Bulletin*, Vol. 2, No. 9, 1977, p. 146-52. [Describes GISP organization, projects, field activities and future plans.]
- RADOK, U. International Antarctic Glaciological Project: past and future. *Antarctic Journal of the United States*, Vol. 12, Nos. 1-2, 1977, p. 32-38. [Reviews results to date of this project which commenced in 1969, and discusses future plans.]
- SACKINGER, W. M. Arctic coastal research on sea ice and offshore permafrost. *Arctic Bulletin*, Vol. 2, No. 10, 1977, p. 169-76. [Describes programme, which commenced in 1972, of the Geophysical Institute, University of Alaska.]
- SHCHEGLOVA, O. P. Vynos melkozema iz glyatsial'noy oblasti i temperatura vozdukh na poverkhnosti lednikov [Silt outwash from a glacial region and air temperature at the glacier surface]. *Doklady Akademii Nauk SSSR*, Tom 233, No. 6, 1977, p. 1185-87.
- SWITHINBANK, C. W. M. Glaciological research in the Antarctic Peninsula. *Philosophical Transactions of the Royal Society of London*, Ser. B, Vol. 279, No. 963, 1977, p. 161-83. [Discusses recent research and its implications.]
- WATANABE, O., ed. *Glaciological research program in Mizuho Plateau—west Enderby Land, east Antarctica. Part 4, 1974-1975*. Tokyo, National Institute of Polar Research, 1977. 11., 183 p. [Japanese Antarctic Research Expedition. JARE Data Reports, No. 36 (Glaciology).] [Contents include: O. Watanabe, K. Satow and M. Inoue, "Positions and elevations of stations along the Highland traverse and items of observation conducted there, 1974-1975", p. 7-13; K. Satow, "Density and hardness of the surface snow cover along the traverse routes in 1974-1975", p. 14-18; O. Watanabe, "Surface conditions of the ice sheet traversed in 1974-1975", p. 19-35; K. Satow, "Net accumulation of snow measured (in 1974-1975) by stake method", p. 36-58; K. Satow, "Snow temperatures at a depth of 10 meters", p. 59-60; O. Watanabe, "Stratigraphic observations of surface snow cover", p. 61-125; H. Narita and O. Watanabe, "Photographs of vertical section of firn", p. 126-38; K. Satow, "Resurvey of strain grids at Mizuho camp and Y 200", p. 139-41; M. Inoue, "Meteorological data in 1974-1975", p. 142-53; S. Kobayashi and K. Yokoyama, "Measurements of drifting snow on the route between Syowa station and Mizuho camp, 1973", p. 154-55; M. Inoue, "Measurements of drifting snow at Mizuho camp, 1974-1975", p. 156-57; K. Kato, "Oxygen isotopic composition and gross  $\beta$ -radioactivity in firn", p. 158-69; H. Shimizu, "Corrected result of altimetric surveys of ice sheet surface made in 1969-1975", p. 170-82.]
- ZWALLY, H. J., and GLOERSEN, P. Passive microwave images of the polar regions and research applications. *Polar Record*, Vol. 18, No. 116, 1977, p. 431-50. [Presents examples of recent microwave images, reviews physical basis for measurements of certain desired parameters, and discusses significance of some glaciological oceanographic and meteorological observations that have been made.]

## GLACIOLOGICAL INSTRUMENTS AND METHODS

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- ANNAN, A. P., and DAVIS, J. L. Impulse radar and time-domain reflectometry experiments in permafrost terrain during 1976. Project 750037. *Canada. Geological Survey. Paper 77-1B*, 1977, p. 67. [Frequency range 1 to 1000 MHz. Outlines results from field work in northern Canada.]
- ANNAN, A. P., and DAVIS, J. L. Impulse radar applied to ice thickness measurements and freshwater bathymetry. Project 750037. *Canada. Geological Survey. Paper 77-1B*, 1977, p. 63-65. [Demonstrates utility of method applied to ice thickness of frozen lakes and rivers.]
- ANNAN, A. P., and DAVIS, J. L. Radar range analysis for geological materials. Project 750037. *Canada. Geological Survey. Paper 77-1B*, 1977, p. 117-24. [Radar range equation used to determine maximum range at which smooth and rough, plane, specular targets can be detected given geologic material properties, attenuation characteristics, and system parameters. Range characteristics of various ground probing radars are then compared.]
- ANUTA, P. E. Computer-assisted analysis techniques for remote sensing data interpretation. *Geophysics*, Vol. 42, No. 3, 1977, p. 468-81. [Describes elements of computer software system and presents examples of conversion of topographic and geophysical variables to an image form compatible with analytical methods.]
- APINIS, J. J. Passive microwave mapping of ice thickness. *Dissertation Abstracts International*, B, Vol. 37, No. 8, 1977, p. 4085-B. [Presents basic calculations from which feasibility of scanning microwave radiometer system for mapping thickness of lake ice may be evaluated. Abstract of Ph.D. thesis, Ohio State University, 1976. University Microfilms order no. 77-2339.]
- APPEL, I. L. K voprosu o tochnosti vychisleniya divergentsii dreyfa l'da [On the accuracy of calculation of divergence of ice drift]. *Trudy Arkticheskogo i Antarkicheskogo Nauchno-Issledovatel'skogo Instituta*, Tom 320, 1976, p. 161-67.
- ARAPOV, P. P., and ZILITINKEVICH, S. S. O vozmozhnom novom podkhode k raschetu teplo- i vlagoozbmena poverkhnosti lednikov [Possible approach to the calculation of heat and moisture exchange of glacier surfaces]. *Materialy Glyatsiologicheskikh Issledovaniy. Khronika. Obsuzhdeniya*, Vyp. 27, 1976, p. 175-77. [Based on theory of turbulent heterogeneous boundary layers. English summary, p. 177.]
- ARIKAYNEN, A. I. K metodike dolgosrochnogo prognozirovaniya ledovitosti morya Laptevykh [On a method of long-term forecasting of the Laptev Sea ice conditions]. *Trudy Arkticheskogo i Antarkicheskogo Nauchno-Issledovatel'skogo Instituta*, Tom 320, 1976, p. 117-20.
- ARIKAYNEN, A. I. Metod rascheta sostoyaniya Chukotskoy zapripaynoy progaliny v iyune [Method of calculating the state of the Chukchi Sea flaw lead in June]. *Problemy Arktiki i Antarktiki*, Vyp. 49, 1977, p. 39-45.
- ARMSTRONG, R. L., and ARMSTRONG, B. A note on procedures and problems in avalanche data collection. *Glaciological Data. Report GD-1*, 1977, p. 5-12. [Describes how and where records are made.]
- BAGOV, M. M. Metodika i nekotoryye rezul'taty izmereniy skorosti mikrospolzaninya snezhnogo plasta so sklonov [Methods and results of velocity measurements of snow layers microsliding from slopes]. *Materialy Glyatsiologicheskikh Issledovaniy. Khronika. Obsuzhdeniya*, Vyp. 27, 1976, p. 82-85. [Describes equipment for micro measurement of creep of snow down slopes. English summary, p. 85.]
- BARENDREGT, R. W., and others. Paleomagnetic remanence characteristics of surface tills found in the Pakowki-Pinhorn area of southern Alberta. Project 650027, [by] R. W. Barendregt, J. H. Foster and A. M. Stalker. *Canada. Geological Survey. Paper 77-1B*, 1977, p. 271-72. [Suggests technique for detecting and mapping surficial deposits.]
- BRUNNER, K. Orthophotokarten vergletscherter Gebiete. *Zeitschrift für Gletscherkunde und Glazialgeologie*, Bd. 12, Ht. 1, 1976 [pub. 1977], p. 63-67. [Differentially rectified air photographs, supplemented cartographically, are inexpensive alternative to topographic glacier maps. Techniques of production are described.]
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- BUSHUYEV, A. V. Koordinatnaya setka dlya vvoda dannykh ledovykh nablyudeniy v EVM [Coordinating of grid for lead-in of ice observation computer data]. *Trudy Arkticheskogo i Antarkicheskogo Nauchno-Issledovatel'skogo Instituta*, Tom 320, 1976, p. 222-26. [Grid for charting observations in Arctic basin.]
- DANILINA, A. V., and OKOLOV, V. F. Issledovaniye primenimosti raschetnykh metodov opredeleniya intensivnosti tayniya snega v Khibinskikh gorakh [Studies of the application of calculations to determine the intensity of snow melting in the Khibiny mountains]. *Materialy Glyatsiologicheskikh Issledovaniy. Khronika. Obsuzhdeniya*, Vyp. 28, 1976, p. 66-71. [Murmanskaya Oblast'. English summary, p. 71.]
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