

geogram

No.13 JUNE/JUIN 1980

an informal branch newsletter
un bulletin interne d'information



FROM THE CHIEF GEOLOGIST

Let me begin by saying "hello" to any members of the staff whom I have not met yet since my return to the GSC and by thanking those of you whom I met for your friendly welcome. It is most enjoyable to be back.

I returned last September during a period of restraint and was greatly encouraged to find the GSC carrying on in its usual way with field and laboratory work, writing, publishing, and all the rest, in the confidence that what the Survey is doing is right and worthwhile. I have been impressed with the positive attitude that I have encountered not only in the Ottawa office, but also in Dartmouth, Calgary, Vancouver and Patricia Bay.

Prior to my return last Autumn, I spent five years seconded into assignments relating to pipelines in the Yukon and Northwest Territories. During this period I had substantial contact with many of the federal agencies, boards, commissions, etc. that are active in the North, as well as both Territorial governments, public interest groups, native groups, and industry. Some observations relating to the Survey in the North may be of interest.

Amid the uncertainties that have arisen from changing priorities of the Federal Government and from the increasing attention that is being paid to Federal-Provincial relations we have viewed Canada's northern territories as areas in which the role of the Geological Survey is clear and accepted. Currently more than 50% of our effort is devoted to the area North of 60. My observations confirm that the Survey can continue to have a major role in the North, but that this role must be supported by the same attention to priorities and missions and external relations as is given to the rest of our program.

It was a tribute to the Survey and its staff that in all my assignments in the North, I was received favourably by people in all walks of life because of my association with the GSC. Further, I learned that the broad ranging knowledge of the geography and geology of Canada that comes as second nature to officers of the GSC is a valuable and relatively rare commodity. In fact, it was this perspective that allowed me to venture into subjects that are not directly related to geology.

Despite the general friendly acceptance of the GSC in the North and despite the substantial uses of geological information relative to resource development and northern planning, neither federal nor territorial agencies appear to recognize, at a corporate level, the importance of ongoing geological surveys. In fact, the general attitude of government agencies in the north regarding the GSC does not appear to differ substantially from that in other parts of Canada. I write this with full appreciation that the petroleum and mineral geologists in the Northern Affairs Program of INA in Ottawa, Yellowknife, and Whitehorse use our work and strongly support our program. It is helpful, moreover, that Dirk Tempelman-Kluit is fostering this relationship and promoting the importance of geology in his current assignment as regional geologist in Whitehorse. But the number of geologists in Northern Affairs is very small and they operate well down in the departmental hierarchy. During my period in the Northern Program it was clear that, while geology was recognized as useful, it has limited visibility in a Department which is responsible for northern policies, development priorities, and administration of northern lands, waters, and resources. Need for geological investigations never came before the Program Research Committee, whereas the need for more and better social and economic research was a familiar theme.

NOTE DU GÉOLOGUE EN CHEF

Je commencerais par saluer tous les membres du personnel que je n'ai peut-être pas pu rencontrer depuis mon retour à la Commission géologique et par remercier tous ceux que j'ai rencontrés lors de la gentille cérémonie de bienvenue organisée à ce moment-là. Je suis vraiment très heureux de revenir à la Commission.

Je suis arrivé en septembre dernier, pendant une période de contrainte économique, et j'ai été très content de m'apercevoir que la Commission géologique poursuivait comme d'habitude ses travaux sur le terrain et dans les laboratoires, la rédaction d'ouvrages, de publications et tout le reste. Je sais que ce qu'accomplit la Commission est juste et valable. J'ai été très impressionné par l'attitude positive que j'ai retrouvée non seulement à Ottawa mais aussi à Dartmouth, Calgary, Vancouver et Patricia Bay.

Avant mon retour à l'automne dernier, j'ai été détaché pendant cinq ans afin d'accomplir des travaux relatifs aux pipelines au Yukon et dans les Territoires du Nord-Ouest. Au cours de cette période, j'ai souvent eu l'occasion de communiquer avec plusieurs organismes, conseils et commissions fédérales qui oeuvrent dans le Nord de même qu'avec les Administrations territoriales, des groupes d'intérêts publics, des groupes autochtones et l'industrie. Je crois que les quelques observations suivantes relatives à l'activité de la Commission géologique dans le Nord pourront vous intéresser.

Malgré les inquiétudes provenant de la modification des priorités du gouvernement fédéral et malgré l'attention de plus en plus importante qu'on attache aux relations fédérales-provinciales, nous considérons toujours les Territoires du Nord comme des régions où le rôle de la Commission géologique est précis et accepté. À l'heure actuelle, nous consacrons plus de 50% de nos efforts à la zone située au nord du 60°. Les observations tendent à confirmer que la Commission peut continuer à jouer un rôle important dans le Nord mais que ce rôle doit être supporté par la même attention aux priorités, aux missions et aux relations de l'extérieur qui est portée au reste de son programme.

Partout où mes activités m'ont amené dans le Nord, des gens de toutes les classes de la société m'ont reçu favorablement à cause de mon association avec la Commission géologique; c'est là un hommage à la Commission et à ses employés. De plus, j'ai appris que les connaissances très vastes de la géographie et de la géologie du Canada, que les agents de la Commission tiennent pour acquis, constituent un actif très valable et relativement rare. En fait, c'est cette perspective qui m'a permis de m'intéresser à des sujets qui ne se rapportent pas directement à la géologie.

Malgré la réception généralement amicale réservée à la Commission dans le Nord et malgré l'utilisation considérable des informations géologiques relatives à l'exploitation des ressources et à la planification dans le Nord, les dirigeants des organismes fédéraux et territoriaux ne semblent pas reconnaître l'importance du programme permanent de levés géologiques. En fait, l'attitude générale de ces organismes à l'égard de la Commission géologique ressemble grandement à celles des gouvernements, ailleurs au pays. Je l'écris sans vouloir aucunement discréditer les géologues pétroliers et minéraux du Programme du Nord du ministère des Affaires indiennes et du Nord canadien à Ottawa, à Yellowknife et à Whitehorse, qui se servent de nos travaux et qui appuient fortement notre Programme. À cette fin,

An issue of current major importance in both the Yukon and Northwest Territories is constitutional development leading to expansion of the roles and responsibilities of the territorial governments. As yet, the Yukon and N.W.T. governments have had little reason to pay attention to our role to the need for adequate geoscience knowledge base, and to the requirement for geological advice by those charged with resource management. This situation will change fundamentally when control of land and resources is transferred to the territories. Although geological surveys are not likely to become an issue in the constitutional debate, there is no doubt that we will be affected.

Thus, it is apparent that the Geological Survey cannot afford to take its role in the North for granted. In particular it is important to be aware of and respond both to the present priorities and concerns of governments and the public in the North and to the evolutionary trends that will change the relative roles of the Federal and Territorial governments.

CLARENCE McNEIL

The Ottawa cartography section has been shocked by the loss of three old-time members who spent their careers with the Geological Survey. Clarence McNeil, recently retired Superintendent of Cartography, passed away on March 30th of this year. "Clarey", as he was known by his colleagues, joined the federal government in 1928 as a student draftsman in the old Department of the Interior. He joined the GSC in 1933 and served continuously in cartography until his retirement in 1973.

An excellent draftsman and cartographer, Clarey certainly made a lasting contribution to geological mapping over a period of 40 years and will be missed by his friends and associates in the GSC and throughout the Department.

CHARLIE CONNELL

The GSC was saddened by the news of the death of Charlie Connell. Charlie was section head of the photomechanical unit under cartography for 42 years until his retirement in 1965. He was a well-known, all-round athlete who earned acclaim in boxing, football and lacrosse. He helped the Ottawa Rough Rider football team to Grey Cups in 1925 and 1926, has been entered in the Rough Rider Hall of Fame and has been named to the Canadian Lacrosse Hall of Fame.

NELSON McCracken

We are also sad to report that Nelson McCracken died in January of this year. Nelson, who had been with the Cartography Unit in Ottawa for 20 years, retired in December 1975.

M. Dirk Tempelman-Kluit nous est très utile en encourageant ces rapports et en soulignant l'importance de la géologie pour les travaux qu'il mène à titre de géologue régional à Whitehorse. Mais il n'y a pas beaucoup de géologues au M.A.I.N.C., et ils n'occupent pas une place élevée dans la hiérarchie du Ministère. Lors de mon passage au Programme du Nord, il était évident que, bien qu'on reconnaisse l'utilité de la géologie, la présence de celle-ci est très limitée dans un Ministère qui est responsable des politiques du Nord, des priorités de mise en valeur et d'administration des terres, des eaux et des ressources nordiques. Le Comité de recherche du Programme n'a jamais eu à décider de faire des enquêtes géologiques, mais il a souvent eu à envisager des travaux de recherches économiques et sociales, en nombre toujours croissant.

À l'heure actuelle, la question de l'évolution constitutionnelle retient l'attention, tant au Yukon que dans les Territoires du Nord-Ouest. En effet, il devrait en résulter un accroissement des rôles et des attributions des Administrations territoriales. Jusqu'à maintenant, le Gouvernement du Yukon et celui des Territoires du Nord-Ouest n'avaient pas grand intérêt à s'intéresser au besoin d'établir une base de connaissances géoscientifiques convenable et de fournir des conseils géologiques aux personnes qui sont chargées de la gestion des ressources. Cette situation changera fondamentalement lorsque les Territoires auront acquis le contrôle des ressources. Les levés géologiques ne constituent pas un aspect important du débat constitutionnel dans les Territoires, mais les travaux de la Commission géologique seront touchés par tout changement.

Il est donc évident que la Commission géologique ne peut pas se permettre de tenir son rôle dans le Nord pour acquis. En particulier, elle doit être consciente des priorités et des intérêts du gouvernement et du public dans le Nord et porter attention aux tendances qui modifieront les rôles respectifs des gouvernements fédéral et territoriaux.

STAFF NEWS

Central Laboratories and Technical Services

Two long-time staff members elected to retire at the end of 1979: Gerry Meilleur, after 27 years in the Public Service of Canada (20 of them in the GSC as Head of the Instrument Development Shop), decided to heed his doctor's advice and take life somewhat easier. The spacious and well-equipped suite of rooms on the Ground Floor, where the fabrication and repair of instruments of all kinds is carried out in a highly skilled and competent manner, is our legacy from Gerry's many years of devoted service to Branch operations.

John Paris retired after 35 years in the Public Service, 23 of which he was responsible for the thousands of sample preparations and mineral separations turned out by this unit of our Mineralogy Section. John started as a clerk in the Mineralogy Division under Dr. Eugene Poitevin, at the old Sussex Street building where the present facilities got their modest start with John in charge.

Gerry and John take with them the warm wishes of all their colleagues for a happy and long retirement.

Branch Administrative Services Word Processing Unit

The renovations in the Word Processing Unit began in late March. Plans for the Unit include partitioning the office to allow a section for the Supervisor, closets for storage and clothing, a static-resistant carpet, an air conditioning system and drapes. What a relief for long-awaited renovations.

There are many new faces in the unit. We would like to welcome Susan Gagnon, who came to us from Secretary of State, and Jane Desautels, who was originally employed through Personnel Pool. Both are Xerox 800 operators. Also, welcome to Madeleine Aiken, who came to us from the Office of the Prime Minister. Madeleine is our new Bilingual Xerox 800 operator. Two proud mothers to welcome back are Janet Gilliland and Kathy Lacelle, who have been away on maternity leave.

Many thanks to Barbara Collis who replaced Kathy Lacelle in her absence. Barbara has now joined Dr. Hutchison's office (I.U.G.S.). We wish you all the best for the future.

Procurement, Chemicals and Stationery Stores

A hearty welcome is extended to Randy Hamilton in the Shipping and Receiving Area, where he will be helping out in the deliveries and stores area. Ron Falls is back on strength giving a helping hand in the stores area. Also, Richard Deschamps has been hired to help Irv Salter with the GSC Branch Inventory System. Welcome Richard. Doug St. Dennis is on French Training. We would like to bid farewell to Steve Palombo who left at the end of March to seek new endeavours in Calgary. Good luck Steve!

Accounts Office

Two new faces in the Accounts Office include Jeff Stapledon, our new Financial Officer, who comes to us from Health and Welfare, and Angie Eastman, our new Accounts Payable Clerk, who comes to us from Butler Mercury. Welcome! On the other hand we would like to wish Donna Lucas all the best in her endeavours of being a full-time mother. Stephanie Scully, previously with the Accounts Office, has recently won a competition in the Economic Geology Division in Vlad Ruzicka's office. Congratulations, Stephanie.



We would like to wish Mary Going a happy retirement. Mary began to work for the Geological Survey of Canada on January 4, 1967, and for twelve years she was the Supervisor of the Accounts Unit. Mary resigned her position on December 27, 1979 after completing 37 years of service in the Federal Government. All the best in your future endeavours Mary!

Economic Geology Division

Fred Langford, professor of engineering geology, University of Saskatchewan in Saskatoon, arrived in January to spend three months doing library research and writing a book on vein-type uranium deposits. Fred is on sabbatical leave and spent the first part with BRGM in France examining uranium deposits.

Raymond Gaudreau became the Division's first Administrative Officer in December, 1979. After graduating from University of Ottawa in 1974 Ray joined the Department of Supply and Services, and in 1976 transferred to Administrative Services Branch of EMR, first with TFSS in Hull and later with Property Planning and Management.

Congratulations to Frits Agterberg who was recently awarded the position of Esso Distinguished Lecturer for 1980 by the Earth Resources Foundation of the University of Sydney. He will spend 3 months in Australia, from 1 August to 1 November, visiting universities, government surveys and companies involved in the mining and petroleum industries as well as addressing meetings of professional associations.

Jim Franklin is also off to Australia by invitation. He will be Key-note Speaker, Economic Geology Section of the 1980 Archean Symposium and Australian Mineral Foundation Workshop in Perth, Australia. Jim will also be a participant in the Australian Mineral Foundation (Inc.) Workshop.

Frits Agterberg and Andrea Fabbri were informed in January that their paper "Spatial Correlation of Stratigraphic Units Quantified from Geologic Maps" was selected by the International Association of Mathematical Geologists as the best paper for 1978. The paper was selected from amongst those published in both the Journal of Mathematical Geology and Journal of Computers and Geosciences.

Geological Information Division

Bob Blackadar was appointed Division Director in March 1980 after acting in the position since June 1979. With the new position he also has a new Divisional secretary, Diane Plourde. Diane is no stranger to EMR; she has been working in Surveys and Mapping Branch for the last five years.

David Reade has recently been appointed Manager, GEOSCAN, Canada Centre for Geoscience Data. In his three years as Head, Automated Search Services, David established many new contacts and introduced the GEOSCAN data

base to our users. He will be missed by both his colleagues and the clients of the library's automated services.

Alicia Prata has left the GSC to accept the position of Head Technical Services at the National Museums of Canada Library. During her two years with the GSC Alicia inaugurated several new programs such as automated cataloguing, standardization of cataloguing practices and a new classification system; her efforts will benefit the GSC for many years to come.

L. Lalonde has replaced Debbie Martin, cataloguing clerk, who is now on maternity leave. Athalie Banks has been hired to work on the GSC Library's automated Serials list project.

Institute of Sedimentary and Petroleum Geology

Brian Cromier has left the Institute to be a mining technologist in the Department of Indian and Northern Affairs in Calgary. While at the ISPG for eight years in the Coal Subdivision, Brian was responsible for drafting, computer data compilation and interpretation of lithologies of geophysical logs.

Denise Armstrong has left her position as geological technician to be a reserve technologist with the National Energy Board. She will be concerned with data gathering with respect to resource reserve potentials.

Curtis Stephens has accepted the position of mining analyst with a firm of coal consultants. He was data manager for the Coal Subdivision.

Helmut Geldsetzer and Andy Okulitch were transferred to the ISPG from Ottawa in October and September 1979 respectively. Helmut was with the Appalachian Section of the Regional Economic Division and is now a mainland regional geologist at the ISPG. In Ottawa, Andy was a geologist in the Petrology Section of Correlations and Standards, Regional Economic Division. He is now regional economic geologist in the Arctic Section, Regional Geology Subdivision.

Bob Munson, ISPG Office Manager (and prime mover of the bridge club) for two and a half years, is now acting in a AS 2 position in the Calgary office of the Department of Agriculture. The bridge club will miss him.

Claudia Thompson will be leaving her word processor behind in May when she moves to Kimberly, British Columbia to help her husband set up his refrigeration business.

Jean Spirritts left the typing office some months ago to deal with customers in the Publications Department.

With the appointment of a new library technician, Susan Coutts, the Library is now running at full strength. Susan was part of the Calgary public school system before coming to the ISPG for more experience in a technical "specialized" library.

Wolfgang Kalkreuth is the coal scientist hired to undertake maturation studies on organic material and coal evaluation. From 1973 to 1978 he was a coal petrologist at the RWTH Aachen University in Aachen, Germany. Last year he did a research stint for 8 months on peat and coal liquifaction in the Chemical Engineering Department of the University of Sherbrooke. He replaces Stephen Creaney who left last year for an geochemical exploration geologist position with Esso.

The Coal Subdivision has also gained a technician for their laboratory. Ken Prat, from Gulf Oil, replaces Lee Marconi who left us last year for the coal fields of British Columbia.

Dianna Campbell, alias the Geophysical Gopher, has come out of her burrow to become Operations Geologist in the Energy Subdivision. She will be responsible for control of petroleum data.

ROSS McLean, whose research focused on sedimentological studies of Tertiary and Lower to Upper Cretaceous coal-bearing rocks of the Foothills, is now employed as a petroleum exploration geologist in the Shell Oil Company.

Bob Thompson fêted his departure in grand style at a swinging party held at Mike and Carole Cecile's place last month. He leaves with his wife, Gwen, and kids and Jogger Joe to take up residence in Vancouver-by-the-sea. (Jogger Joe, a dashing character complete with toque and scarf and breathless expression who gets pinned to a jogger's jacket, has been specially designed to keep Bob from getting lonely on those first few runs until this intrepid geologist has joined the GSC Vancouver jogging enthusiasts.)

Soon coal geologist, Peter Graham, will be jogging through downtown Calgary traffic. After 4½ years in the Coal Subdivision, he leaves in May to take a position with Manalta Coal Ltd.

A warm welcome is extended to Alberto Ricardi who has joined our Paleontology Section in Ottawa. A native of Argentina, Alberto will be uncovering Upper Cretaceous faunas of western and Arctic Canada.

A note received by Don Stott in late 1979 expressed Phil Moore's thanks for his "action-packed" six months at ISPG. Phil is back at the New Zealand Geological Survey spreading the new ideas (some but not all geological) that he gained in Canada and expresses the hope that there will be more exchange visits in future.

OF GENERAL INTEREST

The Subdivision and the Public

Recent contacts with the "outside world" have been, as usual, varied and interesting. Guest lecturers visiting the Regional Geology Subdivision discussed geochronology (Chris Brooks, Université de Montréal), mylonites (Dick Brown, Carleton University), and Precambrian plate tectonics (Alec Baer, Université d'Ottawa). In preparation for a report requested by the Inuit on the mineral resource potential of parts of northern Canada, the Economic Geology Division consulted members of the Subdivision.

Ken Card attended a meeting in Washington of U.S. Geological Survey personnel interested in his work in the Superior and Southern provinces of the Canadian Shield.

A group of non-geologists associated with the Boreal Institute of Northern Studies invited Garth Jackson to give an outline of

the geology near Igloolik and on northern Baffin Island.

Bob Baragar, Fred Campbell and Paul Hoffman lectured to university audiences.

The eruption of Mount St. Helens in the western U.S. has increased the number of requests to Maurice Lambert, resident volcanologist, to explain volcanoes to the general public.

- Regional Geology Subdivision

Geological Wives' Association

To celebrate the 20th anniversary of the Geological Wives' Association, a light-hearted history of the G.W.A. has been written by Joan Roscoe. Copies of this 6 page booklet are available from Mrs. P.J. Hood, 375 Second Avenue, Ottawa, Ontario, K1S 2J3. The price is \$1.00 and all profits will go to the scholarship fund.

Precambrian Division

André Ciesielski recently joined the Regional Geology Subdivision as a research scientist in a term position. With strong background in mapping rocks of the eastern Precambrian Shield, expertise in chemical petrology, and fluency in English and French, André will be responsible for mapping the geology in Quebec at a scale of 1:250 000. Since arriving in Ottawa last spring he has participated in a multidisciplinary project directed by Fred Chandler that studied the relations between uranium anomalies in late Precambrian sedimentary rocks and the character of the underlying gneissic basement on northern Baffin Island. This summer André will begin his own project in Quebec.

Born in France of Polish-Yugoslavian parents, André lived most of his life in Montreal. He returned to France to obtain a Ph.D. from Pierre and Marie Curie University (Paris VI) for a study of the metamorphic and igneous petrology of Archean rocks in the James Bay area. A first class photographer, with interests in philosophy and literature in his spare time, Dr. Ciesielski is a welcome addition to the Subdivision.

Terrain Sciences Division

Fernand Morin, who left the Division in July, has accepted a CIDA assignment in Sénégal. Fernand is now Professor of Soils at École polytechnique de Thies.

Roger Thomas, who has been with Regional Projects Section for 5 years, left the Division at the end of April. Roger has joined a private consulting firm, Terrain Analysis and Mapping Services Limited. We wish him all the best in his new job.

North from the ISPG

The migration north (for the most part) will soon be upon us. Geologists throughout the ISPG are secretly in training: unobtrusively climbing Rocky Mountain slopes, jogging along grassy trails and generally working themselves over so that they will be able to say in good conscience that they can still outclimb, outdistance and outlast their soft and untried assistants.

Helmut Geldsetzer and an assistant will be leaving during the first week of June for the Rocky Mountains north of Jasper in the southern Peace River Hart Range area. They will be moved from fly camp to fly camp by helicopter throughout the area until

the end of August. Middle and Upper Devonian sedimentology will be studied from measured sections.

Neil Ollerenshaw and two assistants left at the end of May the Foothills area around Turner Valley and Ram River where they will look at the structural geology and stratigraphy of the area until the beginning of July and again for two weeks in August.

Dave Gibson and his assistant travel to northeastern British Columbia to look at coal core during August. Bob Christie also plans to be in the area of northern Ram River for a short period this summer season to study phosphate beds from the Devonian to the Cretaceous. He also hopes to navigate his way through Triassic beds in Fernie and up through the Cretaceous phosphate beds of the Yukon. Don't lose your compass, Bob, and watch out for those magnetic reversals (not to mention the bears)!

Don Norris will be studying Upper Devonian rocks along the Alaskan-Yukon border, in the area of Old Crow Plain. He will be mapping both sides of the boundary with USGS geologists for a few weeks in July. Gordon Taylor will continue work he started last year in northern British Columbia.

Darrel Long will spend three weeks in August examining surface and subsurface core sections in the Bonnet Plume and Fort Norman areas. Art Sweet will join him at Fort Norman to sample coal core sections and look at outcrops in the area.

Steve Hopkins will study Tertiary rock samples for two weeks in late August with Jim Monger of the Vancouver office who is mapping in the Fraser River area of British Columbia, about 480 km north of Vancouver.

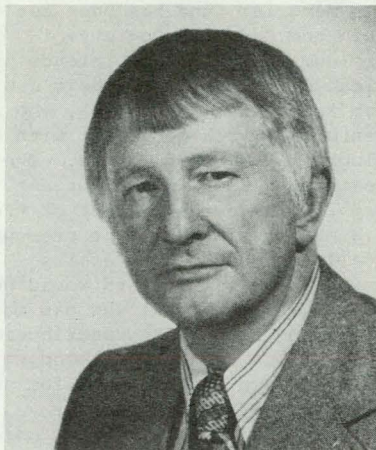
The Nahanni map area will be Brian Norford's area of interest from the last week in July until mid-August. He will be measuring and dating stratigraphic sections.

Walter Nassichuk and Alberto Ricardi will cover the Medicine Hat-Bassano-Lethbridge areas of Alberta this September looking at Cretaceous stratigraphy of the Western Canadian Sedimentary Basin.

From the first week of June to mid-August Mike Cecile will be in the MacMillan Pass area of east-central Yukon; the stratigraphy of Lower Paleozoic shales and cherts will be of importance to his work this season.

A party of eleven will go to Ellesmere Island for all of July and half of August to examine Lower Paleozoic and Mesozoic rocks. Ray Thorsteinsson, Ash Embry,

Bancroft Award to Hutch



W.W. Hutchison, "Hutch" to Survey staff and geoscientists in Canada and throughout the world, will receive the Bancroft Award of the Royal Society of Canada when the Society meets in June at Montreal. Hutch is currently Secretary General of the International Union of Geological Sciences (I.U.G.S.) and is the founding editor of the highly successful international quarterly, *Episodes*, which now has subscribers in 83 countries.

The following is a quote from parts of the citation accompanying his honour:

"Much of the credit for the sense of community that has grown up in Canadian Geoscience over the past decade is due to the work and influence of W.W. Hutchison...Most of his leadership in cooperation and communication has been undertaken as a labour of love. Bill Hutchison is an accomplished scientist whose work with the Geological Survey's Coast Mountain Project between 1962 and 1973 developed many new field and laboratory approaches to regional synthesis...The Coast Range study led him into data manipulation and this, in turn, led to his appointment as Head of the Survey's Data Systems Group in 1979...It is not for his scientific accomplishments, however, but for his energy in successfully spreading his messages of geoscience that we cite W.W. Hutchison..."

The Bancroft Award is given every second year for "publication, instruction and research in the geological and geophysical sciences". Previous winners include: J. Tuzo Wilson, David M. Baird, Ward Neale, Roger Blais and F. Kenneth North. Congratulations, Hutch!

Andy Okulitch and one non-Survey geologist will be accompanied by assistants and field support personnel. It is rumoured that Professor Andrew Miall from the University of Toronto may act as associate geologist to this party.

Hans Trettin, heading up a party of five, will also be in northern Ellesmere Island area. His base camp will be located at Tanquary Fiord from June 14 to August 2. A large part of his time will be spent looking for stratigraphic sections of Lower Paleozoic and Proterozoic bedrock and mapping the northern area. ♦

GSC Involvement in the Precambrian Division, G.A.C.

Several Geological Survey of Canada personnel are actively involved in the affairs of the Precambrian Division of the Geological Association of Canada. Fred Campbell, past-president of the Precambrian Division (G.A.C.) organized a symposium on Proterozoic Basins in Canada for the G.A.C.-M.A.C. annual meeting in Halifax held in May 1980. Some 27 papers were presented at the symposium covering the Proterozoic of areas ranging

from the Mackenzie Mountains in the west to the coast of Labrador in the east. A number of papers were given on recent paleomagnetic studies in some of these basins, ranging from polar wandering paths to interbasinal correlation. The symposium presented an excellent grouping of "state of the art" papers on Proterozoic geology in Canada. The papers are to be published by the Geological Survey of Canada in a volume designed to be a partial successor to the very successful "Basins and Geosynclines in the Canadian Shield" (GSC Paper 70-40). The Precambrian Division (G.A.C.) is also planning a symposium and companion volume on the Archean for the 1982 G.A.C.-M.A.C. meeting in Winnipeg.

Ken Card (current Precambrian Division President) and Tony Frith (current Secretary-Treasurer) are attempting to formulate a submission on the Precambrian time-scale for the Precambrian Stratigraphy Subcommittee of the I.U.G.S. Ken, as corresponding member of the Subcommittee, attended the field trip and meetings of the Subcommittee in Canada and the United States last fall. The Subcommittee members were gratified at the interest shown by the Precambrian Division membership, as expressed by the response to several questionnaires circulated

in 1978 and 1979. The Subcommittee would welcome a submission from the Survey, and toward that end the Subcommittee has contacted people across the country, including a number of Survey personnel, asking for time-stratigraphic correlation charts. Several such charts have been received; when sufficient data are in hand, an attempt will be made to design a time-scale for the Precambrian of Canada which, hopefully, will have worldwide application. ♦



The Awards Committee of the Canadian Institute of Mining and Metallurgy has presented six prominent Members with the 1980 CIM Distinguished Lecturer Awards, one of whom was Bob Boyle of our RGG Division. The presentation of the awards was made by E.H. Caldwell, 1970-80 CIM President, during the annual dinner held April 22 in Toronto.

Mount St. Helens - Bulletin

The following bulletins on the Mount St. Helens eruption for May 20-22 as reported by Lindsey McLelland, Smithsonian Institution, Washington, D.C., were sent to us by Maurice Lambert of the Precambrian Geology Division.

May 20, 1980

The eruption began at 0832 a.m. PDT Sunday, May 19, 1980 without warning of any kind. An earthquake of magnitude 5.0 on the Richter scale occurred simultaneously with the eruption. The explosion was centred on the dome-shaped uplift on the north flank. One eyewitness account reported that the north flank lifted then was blasted away into the eruption column. The explosions were heard 200 to 300 miles away.

The eruption consisted of a vertical eruption column that rose 50 000 to 60 000 feet and a laterally directed blast that went 12 to 15 miles toward the northwest. At 12:17 the colour of the ash changed from dark grey to pale grey suggesting a change from old rock material to juvenile ash emission. The major eruption of ash continued until 15:10 when there was a sudden decline

R.J.W. Douglas Memorial Fund

A memorial fund has been set up within the Canadian Society of Petroleum Geologists by friends and colleagues of the late Robert J.W. ("Bob") Douglas (1920-1979), who was a senior research geologist with the Geological Survey of Canada. The objective is to raise sufficient money for the establishment of the R.J.W. Douglas Medal to be presented annually by the Society as its premier award. The award would be given to an individual who has made outstanding scientific contributions to geology in Canada. In keeping with Bob's own achievements the award would seek to recognize major contributions to regional tectonics and petroleum and structural geology and the general understanding of sedimentary rocks in Canada.

Bob Douglas was one of Canada's most distinguished and respected geologists and the memorial seeks to honour Bob Douglas and other geologists who follow his example in contributing to the development of Canada through their geological achievements.

Cheques should be made payable to the Canadian Society of Petroleum Geology and marked for the "R.J.W. Douglas Memorial Fund". Contributions will be received and receipts provided by:

E.T. Tozer,
Geological Survey of Canada,
601 Booth Street,
OTTAWA, Ontario K1A 0E8

J.O. Wheeler,
Geological Survey of Canada,
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in activity and the eruption plume rose to only 11 000 to 15 000 feet.

Height of the mountain is now 8800 feet indicating that about 800 feet of the mountain has blown away. The summit crater has increased substantially and is now an amphitheatre-like crater 1 km in an east-west direction and 2 km in the north-south direction. Estimated volume of material ejected is about 2 km³.

David Johnston, a U.S.G.S. geologist and his photographic assistant perished at an observation post about 5 miles north of the summit. His last radio communication, heard at the beginning of the eruption, was "...this is it" - and the radio went silent. A helicopter survey of the area after the main blast revealed no sign of his trailer or vehicle, tremendous damage to the countryside and about 5 feet of ash cover. It appears that he was engulfed in a powerful ash flow of substantial extent.

Trees were knocked flat by the blast over an area of about 15 miles wide. Bodies of loggers were found in an overturned vehicle about 15 miles from the eruptive centre. Vigorous boiling of Spirit Lake may have been due to a hot ash flow that entered the lake. Substantial mudflows poured down the north and south forks of the Toutle River. Houses were ripped from their foundations and carried downstream. Mud swollen rivers were jammed with logs. Ash and mud have dammed Spirit Lake.

May 21, 1980

The most significant change in the eruption is a decrease in frequency and magnitude and increase in depth of seismic activity. There have been only about 3 earthquakes of magnitude greater than 3 on the Richter scale. Depth of earthquakes is between 18 and 30 miles whereas before the eruption they were 8 miles or less.

Activity in the crater has diminished to steam and ash columns a few hundred feet high - more steam than ash. The crater extends down to the 4400 foot level.

The main destruction is fairly well delineated. Mudflows moved 18 miles down the Toutle River Valley. Major pyroclastic flows created a dam of debris 200 feet high in Spirit Lake. The Toutle River below the dam is almost dry. Minor mudflows entered Yale and Swift reservoirs on the south side of the mountain and caused a rise in the level of the Swift Reservoir of 2 feet. The Columbia River is clogged with mud, logs and debris and will require major dredging. The north and northwest flanks of the mountain were destroyed by the main explosion on May 19. Chicago reported an impressive sunset on May 20 that may have been caused by ash from the volcano.

(continued on page 8)

SPORTS BEAT

GSC Headquarters Golf Tournament

The annual GSC Golf Tournament (Ottawa divisions) was held May 16 at the Gatineau Golf Club. Even though it was held on a Friday afternoon before the long weekend, 50 people participated making it one of the most successful ever. The organizers - Wilf Lagroix, Yvain Demers, and Larry Côté - picked a beautiful day again this year - sunny and warm temperatures.

Yvain Demers with a low gross of 84 won the Dr. Keith Bell Memorial Trophy followed by Larry Côté with 87 and Bob Delabio with 92. The Gerry Charlebois Memorial Cup for the low net was presented to Carmen Gougeon. Runners up were Floyd Heney who won the Paleontology Trophy with 48 and Jocelyn Watson with 50.

Everyone enjoyed themselves and were most appreciative of the efforts of the organizers who would like to thank Jocelyn Watson, J.L. Bouvier, and Serge Courville for recording the scores and calculating the handicaps. ♦



THE CHAMPS!

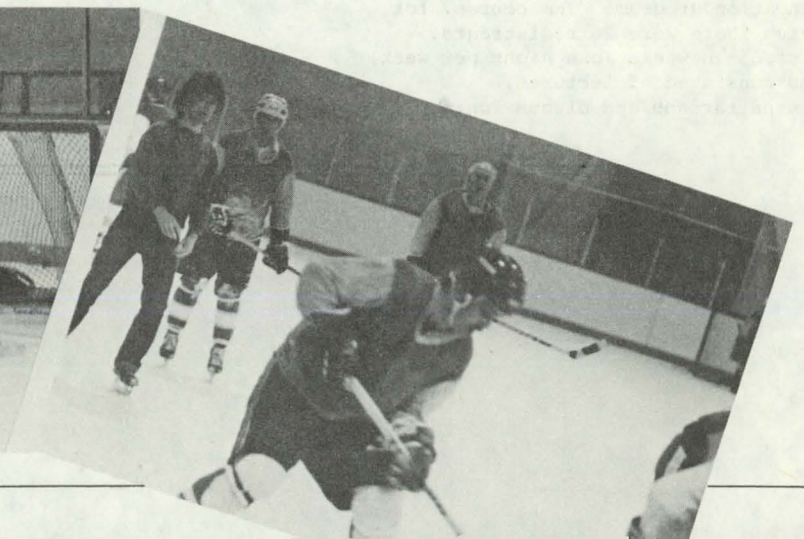
Back row (left to right):
George Cameron, Dr. McLaren, Frank Williams, Les Kornick,
Tony LeCheminant, Bill Coker, Wayne Goodfellow, Ron DiLabio

Front row (left to right):
Mike Kiel, Bruce Ballantyne, Dave Sinclair, Greg Martin
(missing Wilf Podolak)

GSC Hockey League Championship '79-80

The slashing sounds of sharp skates on fresh ice, the cries of anguish at missed opportunities and the thump of exhausted bodies collapsing on the benches have been silenced for another year as the GSC Hockey League completed its sixth season. The league operated out of the RA Centre and consisted of four teams of 12 players. The Blue team topped off a highly successful season, they registered the first two shut outs in League history (much to Ken Clark's chagrin) by capturing the League championship.

Their inspired play in the championship game was no doubt due to the cheering throng of spectators consisting of Dr. McLaren and other notables of the Survey. Speaking of notables, the League wishes to thank Dr. McLaren and the rest of GSC management for their continued sponsorship of this worthwhile activity. Thanks must also go to Marcel St. Pierre and Craig Taylor (Fred's son) for their efforts as referees. And to the rest of the League from the BIG BLUE MACHINE, better luck next time lads!



Bulletin

(continued from page 6)

Main danger at present is the potential for flood disaster when the dam at Spirit Lake bursts. People in the town of Kelso will have about $\frac{1}{2}$ hour to evacuate after the dam bursts.

About 100 people are not accounted for. Footprints seen in ash on some parts of the mountain suggest that there may be more survivors.

Remote sensing equipment that was monitoring sulphur content in the atmosphere was destroyed during the eruption of May 19 and has not been replaced.

May 22, 1980

Fear of flooding has lessened considerably. The dam appears fairly stable because debris extends over a broad area from the high point well down the Toutle River Valley. Some water is passing through and around the dam so that the level of the lake is dropping.

Work in the area has stopped because of the visit of President Carter who is attempting to observe the area by helicopter. Bad weather is hampering both observations of the volcano and rescue operations.

Death toll is now 19. Almost 100 people are still missing. Probably some of these people are stranded in areas where rescue equipment cannot get to them.

Some of the population of the town of Kelso has evacuated voluntarily whereas others are waiting for a warning. ▲

The Geological Wives' Association wishes to remind those interested that a \$200 award is to be offered again this year to a son or daughter of an employee of the Geological Survey of Canada, who is preparing to enter university or college in September for the first year. Application forms are available at Survey offices in Ottawa, Calgary, Vancouver and Dartmouth. They must be completed and in the mail by September 1st addressed to the Chairman of the Awards Committee, Mrs. R.F. Emslie, 13 Laurentide Road, Nepean, Ontario, K2H 6T6.

Once again many thanks to those who contributed to this issue of Geogram. A special "Merci" is extended to Diane Plourde and Germaine Drapeau whose typing talents were greatly appreciated. ◆

That time of year is upon us once again when some stay behind and get bronzed (or burned!) and others pick up their hammers to search out conodonts, moving pegs, striae and the like. From those of us minding the store to those of you stocking up on freeze-dried carrots: "May you be half-an-hour on the homeward trek before the bugs and bears realize you were there!" ◆

Material for the next issue of Geogram should be sent to your Division office or to Lorna Firth.

Les articles pour la prochaine parution de Geogram devront être dirigés au secrétariat de votre Division ou à Lorna Firth.

Editor/
Rédacteur R.G. Blackadar

Editorial Advisors/
Conseillers à la rédaction

M.J. Copeland
P.J. Griffin
L.A. Firth

Ann Stenson gave a course in "Gemmology" during the Spring Session of Carleton University's Continuing Education Program. The course, for which there were 26 registrants, lasted ten weeks (one night per week) and consisted of lectures, demonstrations and discussion. ◆