

**Canadian Geoscience Education Network
Winter Meeting: January 28, 2005
Vancouver, B.C.**

Summary Notes and Members Reports

Present: Dileep Athaide, Diane Baldwin, Ron Clowes, Vic Levson, Linda Ham, Alan Morgan, Godfrey Nowlan, Charlie Roots, Sheila Stenzel, Bob Turner, Eileen Van der Flier Keller, Christy Vodden, Erica Williams. Thanks to all who sent along their regrets, and especially to those who sent in “virtual” reports.

Canadian Geoscience Council (CGC): Geoscience Summit (Alan Morgan)

The Summit, held in Ottawa in October, was set up to reassess the role of the Canadian geoscience community, given the difficulties and pressures many of its component parts are currently facing. Outreach was a recurring theme, and there was recognition of CGEN’s success as a forum for networking and as a leader, advisor and sounding board for outreach activities. As an outcome of the Summit, Alan Morgan has prepared a **think-piece about outreach**, and would like comments on it from CGEN members.

ACTION (ALL): draft attached as *Appendix A*; please send comments to Alan at avmorgan@uwaterloo.ca by May 2. Your input is important, as the document will be the basis of further discussion by the CGC.

Report of the Secretary-Treasurer (Christy Vodden)

The CGEN account as of December 31, 2004 had a balance of \$56,637.89. Of this, \$17,511.25 is for CGEN activities; \$36,676.64 for Geoscape Ontario; \$1,000 for the Careers in Earth Science; and \$1,450 for Friends of Canadian Geoh heritage. EdGEO received its 2004-2005 allocation of \$3,000 at the meeting.

Funding opportunities were discussed, with an updated listing of funding bodies to be appended to the May minutes. In a general discussion, Vic Levson stressed the vital importance of having a commitment to outreach funding as basic component of any major earth science programs funded by the government or others. Sadly this is not the case, e.g., major NSERC-funded programs have no requirement to include outreach, and, indeed, cannot use funds for outreach without breaching the terms of the contract – this topic is also covered in Alan’s Geoscience Summit document, *Appendix A*.

Core projects: reports and issues

The detailed reports from the leaders of core projects will be in the May meeting notes.

Key points raised:

General: The CGEN core projects function best as a synergistic team, working each into the others’ programs, but Sheila Stenzel encouraged everyone to take advantage, as well, of the **opportunities provided by the activities of other CGEN members**, e.g., for

cross-publicity, sharing of resources, etc. She challenged CGEN members to maximize these opportunities. As an example, Sheila puts out a newsletter for BC teachers, and would welcome running relevant and timely information from other CGEN members -- check out the newsletter at www.bcminerals.ca.

EarthNet (Godfrey Nowlan for Jennifer Bates)

The key issue for EarthNet is the need for **more content**. CGEN members are asked, implored, begged to send ideas and materials along to Jennifer (jbates@nrcan.gc.ca). **Promotion to teachers** is another area where CGEN members can provide ongoing help. (www.earthnet-geonet.ca)

EdGEO (Eileen Van der Flier Keller)

EdGEO's success is becoming a **funding pressure** as more groups apply for support, so the EdGEO team is focusing on creative fundraising. **Better geographical representation** remains a goal – Ontario and Quebec are particular targets. It would help in both regards if CGEN members would consider claiming any education workshops they put on (e.g. at professional development days, teachers' conferences, etc.) as EdGEO workshops even if no funding is required from EdGEO. This would better represent the geographic scope of education workshops put on in Canada to potential funding bodies. (www.edgeo.org). Erica Williams reported that she is working to put on two EdGEO workshops a year in Vancouver and/or Vancouver Island.

Geoscape (Bob Turner)

Geoscape continues to **expand into new areas** with its waterscape posters and community-based posters (anyone interested in taking the lead on one for their community can get the template from Bob at bturner@nrcan.gc.ca). **Partnerships** with external groups are paying big dividends: the Gulf Islands Waterscape will be on all BC ferries and Environment Canada is paying for the print run. (www.geoscape.nrcan.gc.ca)

“What on Earth” (Alan Morgan)

Promotion to readers, more **content** from other parts of the country, and **funding** are areas for CGEN assistance. The NSERC Promoscience grant will only cover one or two more issues. “What on Earth” is an excellent place to promote your activities. Check out the online version at www.whatonearth.org.

Careers in Earth Science initiative (Christy Vodden for John Clague)

There should be a **review version of the new website** available for the May meeting.

Geoheritage Project (Christy Vodden for Al Donaldson)

The Ottawa-Gatineau project provides a model for other groups across the country, but the issue is how to **encourage the spread across the country**. Diane Baldwin noted that plans are afoot to set up a **mining heritage museum in Yellowknife**. Godfrey Nowlan described the **GeoParks** concept (80 in China, none in North America) – see attached

article. In a nutshell, these parks are Unesco-approved, become part of an international network of parks, and are proving to be a good way to stimulate economic development in small communities. Plus Geoparks are good draws for the public, thus exposing them to geoscience.

Reports from CGEN member groups

Lithoprobe (Ron Clowes):

Make sure to check out the new Lithoprobe website (www.lithoprobe.ca), particularly the free downloadable teaching materials prepared by Stella Heenan to accompany the book “Dancing Elephants and Floating Continents”. Ron will do a promotional piece about the new materials for “What on Earth”, provide copies for handout at EdGEO workshops, and cross-link to EarthNet. Other suggestions for promotion are welcomed (clowes@lithoprobe.ubc.ca). Lithoprobe concluded with a “Celebratory Conference” held in Toronto last October. An entire morning was devoted to talks for the media, and they will be made available on a CD shortly. The media handout may be a good centrefold for “What on Earth” (Ron and Alan to discuss).

Mineral Resources Education Program of BC (Sheila Stenzel)

Sheila reported that her program at the Cordilleran Roundup was a solid success, with five classes taking part in a career-oriented mini-conference on geology. She expressed concern about the impact of curriculum changes in BC that are weakening earth science education, especially at the junior level. The issue seems to be that all sciences are losing ground, as literacy becomes the priority in BC. The website for this program is well worth a visit www.bcminerals.ca

New UBC Museum (Dileep Athaide)

Dileep reported that a new museum is being installed in the UBC earth sciences faculty, and that it will have teacher resources.

GSC: Geoscience Experience for Northern Communities (Godfrey Nowlan)

See *Appendix B* for Godfrey’s full report on this four-year Geological Survey of Canada project. GENCOM’s goal is to produce and deliver geoscience outreach to northern communities, with the dual purpose of increased understanding of earth sciences as the basis of informed decision-making by the communities, and to encourage northerners to pursue careers in the earth sciences. It has been very active so far, with lots of interesting projects underway (fact sheets, posters, videos, workshops, and even a card game). GENCOM also is working closely with Geoscape and EarthNet. Godfrey welcomes further ideas.

Northwest Territories (Diane Baldwin)

Diane reports that she is working on the Geoscape project for NWT that has just got underway with support from GENCOM. Key activities over the past year include two prospecting courses put on for the Mining Recorder’s office in February, a very

successful Mining Week in June, and the Yellowknife Geoscience Forum in November which had, for the first time, an outreach program for students.

Yukon (Charlie Roots)

Charlie, who works for the Geological Survey of Canada, is co-located with Yukon Geological Survey, and the combined office is the focal point for public/political interest in geoscience information (especially linked to land use). Activities with an outreach component include: a geological history of Yukon (PowerPoint presentation with moving pictures to show ice movements); a regional resource brochure (detailed map on one side with geology and resource areas – gravel pits, known mineral occurrences with issue related stories on the flip side); and a geological road map.

Nunavut (Linda Ham)

Linda Ham, who works with Indian and Northern Affairs Canada in Nunavut, reported that key issues are a recent loss of geoscientists and travel challenges that impede connecting with teachers. Recent successful outreach projects include Mining Week in September, and a science camp with a focus on rocks and minerals at Baker Lake. In February, Claudia Riveros and Laura Clinton (of PDAC Mining Matters) will put on teachers workshops in Iqaluit during a professional development week. INAC is a good supporter of outreach, but available staff time and resources are limited.

Ontario Geoscience Resource Network OGRENet (Cam Tsujita via email)

Cam reports the completion of three lesson plans highlighting the importance of geology in space science for the Ontario curriculum. These will be posted shortly on the website www.ontariogeoscience.net. The OGRENet interactive map is also nearly complete, with two major geological sites of interest represented for most counties/municipalities in southern Ontario. To promote OGRENet, Cam gave a presentation at the Science Teachers Association of Ontario annual conference in Toronto in November. As OGRENet enters its final quarter of development, work is focused on a field guide on geological sites of interest in Ontario. Tentatively entitled "Geology Worth Seeing in Ontario", it is to be completed in the spring. The field guide will be published, as well as downloadable from the website.

Saskatchewan (Kim Mysyk and Fran Haidl via email)

Both Kim and Fran reported that there was good participation by Saskatchewan geoscientists at Sciematics 2004, in October in Saskatoon. This is a special conference held every two years by the Sask. Science and Math Teachers' associations. The geoscientists organized a workshop that looked at mineral resources and climate change, and set up a booth which gave away lots of maps, posters, CDs and rock samples. The next Sciematics conference will take place in Regina in 2006.

Fran's report for the Saskatchewan Geology Society's School Liaison Committee, attached as *Appendix C*, includes the annual school lecture given by GSC's Simon

Hamner to 600 students; and an update on the Geoscape Southern Saskatchewan (almost every school in the province has received a free copy!), its new website (www.geoscapesask.ca), which averaged over 200 users daily during October, workshops, and the development of lesson plans.

Science Council Manitoba (Heather Robinson via email)

Heather reports that the Science Council, through its Youth Stewardship in Environmental Sustainability Project, has struck a new sub-committee to resurrect EdGEO and to improve earth science education in the province of Manitoba. The EdGEO workshop is planned for September 2006 and will be targeted at teachers working on the Grade 3,4 and 5 earth science curricula. The sub-committee is hoping to use the International Year of Planet Earth as a hook on which to hang this and a range of other activities. Heather would welcome any ideas, comments or assistance from CGEN members. She can be reached at hrobinson@wsd1.org.

International reports and liaison

International Year of Planet Earth (Alan Morgan/Godfrey Nowlan)

Stay tuned and keep your fingers crossed. Very few countries have signed on, and hopes that the United Nations would proclaim the year have not yet been realized (maybe in September). There are fears that the year will get submerged into the International Polar Year.

International Geoscience Education Organization

IUGS Committee on Education and Outreach (Alan Morgan)

These items were not covered owing to a lack of time. They will be the subject of an email in the near future.

New initiatives/opportunities

Geohazard education (Godfrey Nowlan)

The Boxing Day tsunami triggered the largest and most dramatic international public awareness/education effort ever. The geoscience community has to build on this. The free forum, "When the Earth Shakes", in Halifax on May 14 is a key Canadian initiative (flyer sent to CGEN on April 11).

Y.O. Fortier Earth Science Journalism Award (Christy Vodden)

Deadline for nominations is January 31 every year. CGEN members should keep an eye out for newspaper articles year-round. The award is given out at the Canadian Science Writers' Association annual convention, giving it good profile. I will try to send out more frequent reminders about it.

Curriculum revision in B.C. (Erica Williams)

A working group led by Erica (Vic Levson, Bob Turner and Eileen Van der Flier Keller, with input from Alan Morgan and Godfrey Nowlan) was set up with a view to sending a brief to Minister of Education.

CGEN Executive 2005-2007 (Christy Vodden)

It was agreed that the current CGEN Executive (Alan Morgan, President; Jennifer Bates, Vice-President; John Clague, Past President; and me, Secretary-Treasurer) would continue on for an extended term of one year. This was confirmed by a notice to all CGEN members on March 21, and no objections were received.

Christy Vodden
Secretary-Treasurer, CGEN

April 13, 2005

The Geoscience Summit 2004, Ottawa

Summary and Action Plan for Education and Outreach

INTRODUCTION

In October 2004, the Canadian Geoscience Council called a "Geoscience Summit" in Ottawa to try to gauge the feelings of the community about the different problems that are assailing our professional area. About 100 geoscientists from many diverse areas (disciplinary and geographically) attended the summit. Many of them commented on various areas of concern and a summary report will appear in *Geoscience Canada* in the relatively near future. It was fairly obvious from the conference that "recruitment", "education", "outreach", "public awareness" and "public image" were key words that illustrated a desire from the geoscience community to address these problems.

I was less certain that our message got through that CGEN is a logical place to handle many of these tasks. Godfrey Nowlan expressed concerns that "professionals" should be brought in to promote some of these aims, but the "professionals" must be in close contact with "us" (CGEN) to transmit the right messages in the correct way.

RECRUITMENT (and JOB PROSPECTS)

In respect to "recruitment" a number of speakers outside the CGEN presentation stressed that almost immediately, and certainly looking perhaps about a decade down the line, the Earth science professions are going to be faced with a shortfall of Canadian-trained geoscientists. This is particularly true for those with advanced degrees. This "shortfall" might be offset by the current practitioners of Earth science working past 65; by accepting professional geologists from overseas (if professional registration and provincial migration problems can be resolved), and perhaps by accepting newly graduated students from China, India, Pakistan, and Russia.

Europe and the United States can be likely be removed from the pool because of closure and consolidation of Earth Science Departments. In fact both of these major western regions likely also will be competing with Canada since they will actively be looking for new Earth scientists for their own demands. In some ways this is discouraging, but on the other hand, given the laws of supply and demand, one is likely to see salaries increasing substantially perhaps 10 to 15 years from now. In turn this SHOULD help us in our drive to interest teachers and (particularly) students in the prospects for Earth science.

It seems that there is conflicting information out there. Industry personnel from the Petroleum sector, from the Mining Community and (perhaps) from consulting (and even

the government sector?) suggest that this is a real problem. Information gathered by CSPG, PDAC(?) and the 2001 CGC Census all point to a problem that might be present today. Certainly it will be a problem in 5 years, a major headache in 10 years, a disaster in 15 years and a catastrophe in 20!

However, it was intimated that Government-gathered statistics (and also some privately-generated information) do not back-up the internal Earth science community-generated census data. Contact should be made with Industry Canada (or whatever it's called these days), to make sure "we" and StatsCan are not sending conflicting messages to School counsellors, and more importantly, through them to teachers, parents and students.

The increasing technological innovation within the Earth Sciences means that different skill sets are being required. A definition of such skill sets is essential and it might help promote the Earth sciences in areas that are not (traditionally) regarded as a potential student source.

Recommendations

1): Industry and perhaps other sectors should involve CGC in preparing a brief for senior government to show that lack of recruits will be a serious problem (if it isn't already).

2): CGC should act to compile such an inventory from its Member Societies and other Geoscience Organisations.

3): A compilation of this type (career paths and potential future shortages) should be added to any Careers websites prepared for CGC.

EDUCATION

This brings us to education. We all know that there are major problems in this area and they assail us at all levels. At the Junior school level we face the challenge of teachers that have little or no Science training (let alone Earth science education). Teachers are "uncomfortable" about introducing topics for which they have little experience or personal knowledge.

A slightly different problem prevails at the senior school level. Here the problem can be announced as those of a "turf war" (*We can't afford the time/space to allow Earth science into the curriculum*). "We" in this case are often "other" science teachers (chemists, physicists, and biologists) who refuse to give up time to introduce Earth science. They have little or no knowledge of the subject area and are unwilling (or unable) to take the time to learn basic information about the "upstart" science that is being interjected into "their" curriculum. To elaborate further; high-level providers of

secondary science education resources in Ontario are ignoring the Earth science component that is already IN the school system. Faculties of education, the Ministry and STAO continue to place a heavy emphasis on Chemistry, Physics, and Biology with little or no acknowledgement of Earth science even though it is an identified strand in the science curriculum.

A secondary problem is that Earth science cannot be taught even by those who are trained (and have graduated) in the discipline, because the teaching colleges deem this as a "non-teachable" subject area. There are some jurisdictions, for example in BC, where this is an exception. I might add that a similar problem prevails at the university level where biology, chemistry and physics are deemed to be basic requirements for science, but Earth sciences can barely be tolerated.

Such attitudes must change. We live in a world where burgeoning populations are demanding ever-increasing resources and at the same time are being faced with the twin calamities of massive urbanisation and increasing natural hazards. The tsunami of December 26th whose effects might have been reduced with populaces better-trained in Earth sciences is a case in point. Lastly the world will need populations that are better versed in demands on natural systems. They must be in place for the problems of the next few decades since water demand and shortages in fuel supplies will soon reach crisis levels with potential conflicts rising in most areas of the world.

Recommendations

1): At the Junior School level we must continue to expand the EdGEO programme where teachers are assisted in understanding basic concepts, provided with practical materials and offered advice and resources that are suitable for classroom situations. Continuation and expansion of fieldwork opportunities would also be advantageous. Additional funds from Industry will help. Teaching assistance through increased EarthNet and What on Earth articles.

2): At the Senior school level, working with other science teachers might resolve some of the conflict. The EdGEO workshops will also assist in smoothing the way to better understanding of the Earth sciences. Cooperation with teaching resources and having scientists in the schools might also help. Again teaching assistance through increased EarthNet and What on Earth articles.

3): EdGEO might need a re-vamp in terms of operational strategies. Perhaps try establishing regional bases with "nodes" to assist local teachers. Resources and personnel would be "on call" to provide regional workshops with enthusiastic local teachers.

4): Where possible there should be local groups that discuss the continuum and

deficiencies in education moving from K to Grade 16, and beyond into the senior world of continuing education.

5): **Every** national meeting of all Canadian Earth Science Organisations and Societies, including PDAC, should have an awareness and outreach session for education to which local teachers are invited. Associated workshops should be held wherever possible. A forum of this type would be established to engage local teachers in workshops, field trips, perhaps a “simplified” technical session; access to contacts and perhaps materials, and the encouragement of a website section aimed at teachers.

6): CGC (in addition to GAC) should promote a national Earth Science Award at the National Science Fairs (ca. \$1,000 - \$2,500/annum). Local fairs (or those at the Provincial level) should be supported to lesser amounts, perhaps in the \$100 - \$200 range.

7): Approaches should be made to the Ministries of Education about potential problems concerning non-teaching options for Earth science graduates. If necessary CGC should provide support particularly in teaching qualifications both for Earth science graduates entering teaching and for specialist qualifications in Earth sciences. Provincial curriculum reviews should also be examined by CGC.

8): Requests (through CGC) should be made to all universities in Ontario (senior administration especially in Science Faculties) that Earth and Space Science (GR 12) be allowed as a substitute (and/or) for Biology for entrance. Similar approaches might be needed elsewhere.

9): Efforts must be made to improve the "Careers aspects" so that students (at GR 7-9 and 11-12) become more aware of the discipline and opportunities for employment. Here Industry and Government support is essential. Establishment of attractive web sites to promote these aims. CGEN should strive (together with industry and professional registration bodies) to produce posters to promote Earth science and environment. CGC (through CGEN) should coordinate roles and inputs.

10) CGEN (perhaps through CGC) should be actively supporting, by letters of commendation to school boards and departmental heads, those teachers, lecturers and scientists who are actively promoting the cause of geoscience education at all levels.

OUTREACH AND PUBLIC AWARENESS

Again one of the themes that emerged is that our science is poorly understood. In spite of laudable aims expressed in the national network of posters such as **Geoscape** and **Waterscape**, and excellent books on landscapes, processes and other geological themes

illustrated in regional or urban books on the Maritimes, Toronto, Edmonton, Vancouver and Victoria, we still have a lot of work to do. Assuming that some of the problems concerning the schooling system have been addressed above, we should consider ways in which promotion of geoscience may be achieved or expanded.

Recommendations

1): CGEN has to encourage others to promote Earth science projects that affect the community at large. This can be at the local, provincial or national levels. This might require CGC addressing such promotional matters to academic heads in universities and schools across Canada (public outreach really is as important as scientific papers). The same should apply to Federal and Provincial departments.

2): Better attempts should be made to promote a wider network of newspaper reporters and science writers to promote geoscience articles. (GAC's Fortier Award really is a step in the right direction). The idea behind this is to raise profiles at the local and regional level. Contacts should also be extended to local TV and radio across Canada. Major national disasters (Vancouver landslides) or international disasters (Sumatran Mv 9 earthquake and tsunamis) provide easy access points to newspapers and other media outlets. Very direct messages can be put in front of the public through these outlets.

3): Well promoted and managed public lecture tours at major science centres. CGC should approach the granting councils and other funding agencies to insist that (like the Europeans) perhaps 1% of all direct grants should be devoted to outreach and public information. This should be outside normal "Promo Science" funding from NSERC for example. All CFI grants should have (and should have had) such a component built in. This would/should show tax-payers how their funds are being spent. For example, 1% of the NEPTUNE research programme specifically targeted to outreach would have provided \$600,000 for awareness.

4): Every major Earth Science project should specifically target MPs with a "facts and accomplishment sheet" that explains in simple terms what the project aims to accomplish; how it betters society; what "spin-offs" might benefit local communities and/or regional and the national economy. This could be applied to Geoscapes, local and national "geo" initiatives.

5): Earth scientists should meet with their local MPs and members of Provincial legislatures to discuss matters that affect their communities.

6): CGC should get behind promotional activities such as Earth Science week and (if it ever gets approval) really act as a focal point for the International Year of Planet Earth, by organising a comprehensive outreach and awareness programme for Canada. Monies to come from Member bodies of CGC.

7): CGC should assist in the Canada Prize initiative by bringing key-players together from their own ranks (i.e. people with big bucks).

If anyone wishes to add additional remarks to add to or amplify the text above, please do so by May 01, 2005. As educators our responsibility is to attract new persons to our profession. We also need to act as “enlightened correspondents” to the public at large and to communicate with and to guide governments about their shortcomings in public education and awareness of our discipline.

A document which will be finalized by incorporating additional comments and input from CGEN members will serve as working protocols for CGEN activities.

Alan V. Morgan

Appendix B

**REPORT ON THE GEOSCIENCE EXPERIENCE FOR NORTHERN
COMMUNITIES PROJECT**

Prepared for CGEN Meeting, Vancouver, 28 January 2005

This project is part of the Northern Resources Development Program (NRD) of the Geological Survey of Canada. It began in 2003-04 and will conclude in March 2007. It was designed to coordinate, facilitate and deliver geoscience outreach to northern communities. The plan has been to provide readily understandable geoscience information to northern communities through community and school based programs. We are assisting communities in garnering the necessary knowledge to make informed decisions on resource development and land-use planning. We are also hoping to encourage northerners to pursue careers in geoscience-related fields. The long-term goal is for northerners to have more skills and knowledge and therefore better jobs.

The project works closely with other projects in the NRD Program and is, indeed, the catalyst through which outreach occurs in each of those projects. We work cooperatively with existing programs in the north being delivered by government or other agencies. Current developments under this project are:

- **Funding the revitalization of the web site EarthNet.** This is being accomplished by providing some of the human resources required to get this done. A longer term goal is to put EarthNet on a more solid footing from the human resources point of view. To date there has been a re-examination of many aspects of the dataset, an on-going transformation into a more modern database setting and attempts to acquire new data from those provinces that have very little information in the database.

- **Preparation of Fact Sheets.** These sheets are colour, double sided pages on a variety of northern geoscience stories. The long-term goal is to convert them to a web site dealing with northern resources. This project suffered a major set-back when we were forced to re-design all the sheets that we had prepared to conform to an NRCan standard that was introduced *after* we had already completed several sheets. There are now twelve complete: four of these are through translation into French and Inuktitut; eight are undergoing translation now. A further six are advanced states of preparation.
- **Snowmobile Poster.** Research is ongoing to provide the background for a poster showing the various parts of a snowmobile and what Earth resources are required to make them.
- **Dawson Geoscape.** Charlie Roots (GSC Whitehorse) is the lead on this. The panels are in an advanced state of preparation.
- **Northern British Columbia Geoscape Guides.** Bob Turner is leading this aspect of the project. The concept is a compact poster answering questions as to where the community gets its resources (water, minerals, food, goods and energy) and where the wastes (sewage, garbage and exhaust gases) go. The guide for Prince George is complete and work is underway on Terrace, Smithers and some smaller communities.
- **Northern British Columbia Energy.** Bob Turner is also leading this project. It is conducted jointly with The Exploration Place in Prince George. The program is to put information and activities on northern BC energy into Science-in-a-Box that will travel around schools in northern British Columbia. We have already delivered a workshop to teachers in Prince George and we plan another for March 2005.
- **Northern Alberta Outreach.** We have delivered Earth Science resources to all schools in the Fort Vermillion district and gave a workshop for teachers at the local teachers convention in September 2004. Rod Smith is the lead on this part and is actively dealing with the education system in northern Alberta. In cooperation with SciQ and Access TV a television program has been completed called the Rock and Fossil Road Show. This features Rock and Fossil clinics in the province. Thirteen segments will be included in the 50-minute show that will be aired in late February across Alberta.
- **Northern Saskatchewan Geoscape.** Stephanie Douma is completing this project under David Corrigan's project on the Trans-Hudson Orogen. A draft was shown at the Saskatchewan Open House in November 2004. A contract is being raised to supply classroom activities associated with this poster.
- **Nunavut Geoscape.** Stephanie Douma is also completing this project under David Corrigan's project on the Trans-Hudson Orogen. A planned release is set for Iqaluit or Arviat in April 2005.
- **NWT Geoscape.** A meeting to scope content was held in Yellowknife in December 2004 and this is proceeding under the leadership of Donna Schreiner at the NT Geoscience Office.

- **Boothia Peninsula.** An aeromagnetic survey was flown on Boothia Peninsula in the summer of 2004 and a poster was prepared for each of the communities in the region. Warner Miles led this aspect of the project. The communities of Taloyoak, Gjoa Haven and Kugaaruk were contacted. Further work in this area in 2005 led by Jim Ryan (GSC Vancouver) will see more development of outreach in this region.
- **Video on the Mining Cycle.** This video, aimed at the aboriginal community, describes the mining cycle from early exploration, to advanced exploration, to mine development, to clean-up. It features voices from the geological surveys of Ontario and Canada, but mostly aboriginal voices. It will be a 6-part DVD, one part of which is a 15 minute summary, that I think will be useful to any individual or organization doing outreach in northern Canada. The English version will be shown at PDAC in March. General release, once it has been translated into French, Cree, Oji-Cree and Ojibwa will be in the spring.
- **A Geologic Journey.** This is the title of a multi-part TV show being produced by CBC and the NFB. I have met with the producers and their researchers to help them scope out stories for inclusion in the series. It will be under production in 2005 and aired in 2006. If you need further information, please contact me.
- **Got Gas?** This is card game, based on rummy, which is currently under development in the GSC Atlantic office as part of a project being conducted in the eastern offshore. John Shimeld is the lead on this. Prototypes have been tested, and the game is currently being revised. The idea is to explain to players basic elements of the oil and gas industry.
- **Nunavut Science Outreach Network.** This organization is off the ground and in the capable hands of Claudia Riveros. Representatives of this project were at the founding meeting and find its development to be a great step in northern outreach, as it brings together people from many different aspects including education and science.

This is the selection of the projects being pursued under the general banner of this project. Ideas are welcome.

Godfrey Nowlan, Calgary, 27 January 2005

Saskatchewan Geological Society: School Liaison Committee

The School Liaison Committee continues to be committed to providing opportunities to Saskatchewan students to enhance their awareness of Earth, of its geological processes, and of how modern society is built upon its mineral and energy resources.

This year we resumed our annual school lecture, the 17th in the series. Simon Hanmer (Geological Survey of Canada) spoke to an estimated 600 school students in his two-day visit to Regina, May 20th and 21st. His schedule began with a morning and afternoon talk entitled *The Rocky Planets: a geological field trip through the inner Solar System* to about 300 students at Martin Collegiate. Simon also gave an informal lunchtime presentation about his career in geoscience to a small group of interested students. This was well received and prompted a few students to comment that they had not thought about geoscience as a career, but were going to explore their options. Simon's first day concluded with his public lecture (same theme) delivered at the Royal Saskatchewan Museum; over 70 people attended this event. On the 21st, Simon twice presented his lecture at Balfour High School. Judging by the large number of questions asked after each presentation over the two days, the students were well prepared and seemed to get a lot from what they heard. The feedback to the Committee was highly positive.

In October, SGS, in collaboration with CIM and the University of Saskatchewan, participated in *Sciematics 2004*, a conference held every two years by the Saskatchewan Science Teachers' Society and the Saskatchewan Math Teachers' Society. The theme of the conference this year was "*Change: Facts and Figures*". At an earth science workshop, Dr. Dan Brisbin (Cameco) presented "*Saskatchewan's Mineral Resources in Society (and Through Time)*" and Dr. Bill Patterson (Department of Geological Sciences, University of Saskatchewan) discussed "*Global Perspective on Climate Change: Evidence from Emerging Technologies at the University of Saskatchewan*". Participating teachers received *Geoscape Southern Saskatchewan* posters and Saskatchewan Geological Highway Maps provided by SGS, plus many other educational resources from government and industry sources. SGS also provided highway maps for free distribution at a booth that featured displays of various earth science educational resources and abundant free geoscience classroom materials (with a focus on those with Saskatchewan content).

The Geoscape Southern Saskatchewan Sub-committee has had another successful year. 8950 copies of the poster were printed: 8500 English and 450 French. Over 800 posters have been delivered to schools across Saskatchewan – almost every school in the province has now received a free copy. The *Geoscape Southern Saskatchewan* website (www.geoscapesask.ca) was created during the summer and averaged over 200 hits per day during the month of October. This suggests that more and more Saskatchewan teachers are becoming aware of our *Geoscape* poster and the geoscience educational resources it provides. The website also lists the many sponsors (too many to mention here) who have given so generously to the *Geoscape* project. On behalf of the SGS, Saskatchewan geoscientists, the Saskatchewan teachers and general public, we would like to thank all of the sponsors for supporting the printing of the posters and the development of related resources for teachers.

A handful of teachers and geoscientists have worked tirelessly to develop curriculum-related lesson plans and organize teacher workshops based on Geoscape poster panels. Without their efforts fewer teachers would be utilizing and adapting Geoscape for their classrooms. A special thank you to Kate Grapes-Yeo and Sarah Ehman who led three teacher workshops at the Regina Public and Catholic School Board offices. The

committee has received very positive feedback from all those who attended. We are currently trying to recruit volunteers to help organize similar workshops in other Saskatchewan communities. Several lesson plans will soon be posted on the website and available for teachers to download.

In 2005, a two-part workshop, *Rock Forming Processes and Rock and Mineral Identification*, co-sponsored by the SGS, EdGEO and local school divisions, is scheduled for late January. The School Liaison Committee also plans to participate in the Middle Years and Teacher-Librarian conferences through workshops and/or a display booth.

Once again, our thanks go out to all members of our committees and to the network of dedicated teachers, science consultants and geoscientists that help to ensure geoscience is alive and well in our schools.

Respectfully submitted,

Andrew Nimegeers and Melinda Yurkowski (School Liaison Co-Chairs)
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December 20th, 2004