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A Progress Report by the Canadian Geoscience Council's Advisory Committee to the Geological Survey of Canada

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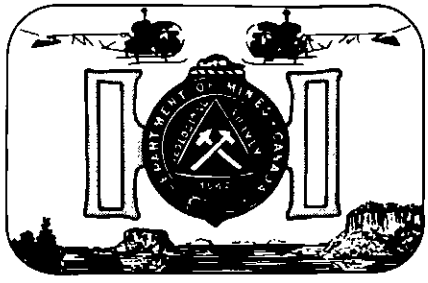

The Survey Seeks and Gets Advice

A Progress Report by the Canadian Geoscience Council's Advisory Committee to the Geological Survey of Canada

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Government organizations are visible. They spend our money. They are often large by comparison with others. Their responsibilities may be global, not local. Being visible they are easy to criticize; as taxpayers' creatures their responses to criticism, however ill tempered the critics may be, must be good-humoured and understanding. The Geological Survey of Canada, a branch of the Federal Government's Department of Energy, Mines and Resources, faced its potential critics squarely and asked the Canadian Geoscience Council to appoint a group to advise it, to criticize it, and to recommend changes if changes should be necessary.

An Advisory Committee to the GSC was appointed by negotiation between Council and the Survey, and the first members were Alan Coope (Newmont, Toronto), Jack Mollard (Mollard and Associates, Regina), Don Weir (Chevron, Calgary), David Strangway (Univ. Toronto), Mike Keen (Dalhousie Univ., Halifax) and Atholl Sutherland-Brown (Dept. Mineral and Petroleum Resources, Victoria, B.C.). This mix is: mineral industry, petroleum industry, universtiy, and provincial government, with a geographical spread from far west to fairly far east. There are obvious gaps in representation, but these gaps will be filled in future. We spent our first year learning; how we learned, what we did, and what we think, follows.

We first met with the Survey's management, and were introduced to the variety of work done by each of seven Divisions. We decided then to visit Divisions individually, and went in groups of two or three for one or two days to: the Vancouver office (with the Cordilleran Subdivision of the Regional and Economic Geology Division, and a part of Terrain Sciences Division); the Institute for Sedimentary and Petroleum Geology, Calgary; the Atlantic Geoscience Centre, Dartmouth; Regional and Economic Geology Division; and the Terrain Sciences Division.

Not all Divisions have been visited yet, but this phase of the work will be completed soon. A certain style developed during these visits - meet with the Division or Subdivision management, meet with as many research scientists as possible, and briefly tour the laboratories. We asked questions: what do you do? who tells you what to do? are you happy in the Survey? do you have complaints? what contacts do you have with industry? with university? with other arms of government? are you adequately supported with services? are you overwhelmed by demands which require immediate response? what scientific or technical aims move you? And so on, depending on responses By the time we have toured all seven divisions, we will have met about half of the research scientists in the Survey, and all the managers. There was criticism that visits were too short, and that we did only meet with managers and research scientists. These criticisms are fair, but I do not think we could reasonably have spent more time than we did, some 40 or 50 person-days, I think, in our first year.

We wrote a report on each visit, giving a summary of the views of the inquisitorial duo or trio. These were sent to the Director-General, and passed to Division managers. They served two purposes - they provided managers with outsiders' views of a Division (or Subdivision), and provided us with the raw material for our first year's report We were not afraid to be blunt, as some quotations will show. "Your own officials in EMR do not appreciate that mapping is a core program. . . The Division is dangerously thin in some disciplines. . . This (unit) is a grab-bag of disparate elements. . ."

The visits and reports led us to concentrate in our end-of-year report, sent to the Assistant Deputy Minister, Science and Technology, on the following topics: 1) the roles of the Survey, 2) suggestions for change, 3) research scientists, 4) communications, 5) decentralization, 6) the committee's future activities. The report was some 8000 words long, with many appendices - and so I can only comment on some of the issues which we raised.

It may not be obvious to outsiders, but the activities of the survey are changing in their nature. Most of us think of the Survey as have a responsibility for programs which lie at the heart of our understanding of the geology of Canada and ocean basins adjacent to it; examples of such programs include mapping, taxonomy, stratigraphy, geophysical surveys and so on. However, new types of programs have been introduced in the last few years, which have at least two common attributes: they demand expertise from many of the traditional divisions, branches or departments, not just one, and they are socially very visible. Among these programs are those which involve the evaluation of hydrocarbons, the disposal of nuclear wastes, and the environmental hazards of offshore drilling. It was not clear to the committee that there are adequate administrative mechanisms for the establishment of the task forces which should be mobilized to make such programs effective What was made clear is this: there is not much "new" money provided for new programs. Most money has to come from existing funds, and as a consequence core programs, classical programs, are squeezed.

The Survey's roles are changing at a difficult time: the relationships between the federal and the provincial governments are being altered: the Survey is short of people to meet the demands placed upon it - the short term fire-fighting demands, and the long term, core-program, demands; social problems are enormous - energy, waste disposal, mineral resources, pipe-line corridors, the 200 mile limit and effective sovereignty, offshore drilling, and so on. The committee appreciates that the Survey does at the present time about half of the geological research in the

country, and appreciates too that the Survey has had in the past a very real role of leadership in the geological aspects of the earth sciences in Canada. But we do not believe that the Survey can solve the present problems that the country faces by itself, and must rather see that all expertise is mobilised, that all earth scientists work in concert, wherever they may be - in industry, provincial or federal government, or university.

We had not appreciated before we began the constraints faced by the Survey. Systems are imposed government-wide upon all departments and all branches, with no consideration that the different units have different needs, and would operate more effectively if these differences were taken into account. The Survey has to carry out its programs hindered by government-wide systems, not helped by them. A cynic said informally: in five years time we will be operating at 100 per cent efficiency in reporting our activities, and accounting for our time and purchases; but we will be doing no geology - there will be just no time. The constraints we refer to include an abominable research scientist appraisal system and wholly unsatisfactory approaches to decentralization. The Survey can do almost nothing to solve the problems caused by the imposition of such systems, because they are not within its control.

Communications within the Survey are not as good as they should be, a potential problem for any large organization. We gave in our report specific examples, and made specific recommendations, but essentially the problems caused by poor communications can only be solved by constant attention on the part of managers. We did suggest specifically that there is a place for meetings of Survey scientists - indeed, with other interested scientists, at which the Survey's programs are discussed, and something like this is being done. It really is very difficult for a geophysicist at the Atlantic Geoscience Centre to find time to be aware of programs in the Precambrian Shield (say), but the interchange could be invaluable.

The committee's work will change in the next year; when visits to divisions have been completed, the members will turn their attention to specific areas where we felt particular attention is needed. These topics include marine geosciences, radioactive waste disposal, the uranuim reconnaisance program, geochronology, and northern pipelines. Clearly, the committee doesn't have the expertise to do all that, and so will adopt a rather different strategy, forming miniature task forces for most areas. Should the committee deliberately change its membership? We though so when we started, but perhaps now we feel that slow change being generated by natural attrition may be better, because a government agency is a complex organism, and a good deal of learning is involved before reasonable criticisms, reasonable suggestions for change, may be made. It is easy to discharge at half-cock, and we have been anxious to avoid doing that. Will the Survey take note of our comments? They have already: changes in Reports of Activities are being considered so that feedback can be obtained from members of the public; there will be meetings crossing divisional boundaries; some of the areas where we thought there is a need for particular attention will be reviewed in the fall of 1977; our comments on the criteria for decentralization have been extracted lock, stock and barrel in a report to the Assistant Deputy Minister. These are some examples, and they augur well.

This responsiveness by the Survey seems to us to be typical. Its officers welcome comment and advice. If you have constructive criticisms, send them to the Director-General - do you like the format of maps? of memoirs? of papers? has the Uranium Reconnaissance Program been useful to you? Tell the Survey, because, otherwise, it will never know. The Survey's doors were wide open to the committee, and its members welcomed us and cooperated with us. The invitation to Council to establish the committee is in itself a tribute to an organization which has contributed so much to the development of the earth sciences in Canada.

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