After 52 years, AGU is cutting its umbilical to the Academy

In a move that many feel is long overdue, the American Geophysical Union is in the process of cutting the umbilical cord that has tied it to the National Academy of Sciences for over half a century, and it plans to incorporate as an independent organization sometime this year.

In a way, the separation will be no more than a legal recognition of changes that have already taken place. The AGU was founded as a committee of the National Research Council in 1919; its purpose was to represent the United States in the International Union of Geodesy and Geophysics. Eventually, the AGU began to take in members, and in 1932 it began to collect dues. The AGU now has some 10,000 members and an annual budget of around $1.5 million, holds two national scientific meetings annually and publishes the respected JOURNAL OF GEOPHYSICAL RESEARCH. As AGU grew, its executive council, composed of the union officers, heads of the union's nine sections, and a number of NAS/NRC representatives, assumed the role of U.S. National Committee to the IUGG. Except for this role, and an annual allotment of $400 from the Academy, the AGU is, and has been for some time, operating independently of the NAS.

The relationship had, in fact, become something of a burden on both parties. All AGU documents and activities had to be approved by the Academy. In this way, the Academy acts as a quality control over the scientific programs of embryonic organizations. As an Academy spokesman pointed out, AGU obviously no longer needs such controls, and approval of its actions had long since become a formality.

In November 1970, Academy President Philip Handler wrote to the AGU suggesting that AGU consider acquiring independent legal status. The letter, says AGU executive director A. F. Spilhaus Jr., brought to the surface similar feelings among AGU members. When the subject was discussed at the AGU executive council meeting the following month it was agreed that the time had come for AGU to move out on its own.

The process of disentanglement, says Homer E. Newell, President of AGU, will be long and complicated. AGU's 43 employes, for instance, at present constitute about five percent of the Academy staff, and the Academy provides services to them and to the union as a whole that will have to be provided some other way. But the process is already well along. A committee headed by William Durbin has produced a new constitution and set of statutes and by-laws which have been approved by the executive council. These will be published in the organization's magazine EOS in the near future for approval by the membership and will become effective on incorporation of AGU. Spilhaus says incorporation will probably take place "sometime this year." The union has already vacated its Academy offices and moved to a new location in Washington. A committee will be appointed to recommend a permanent headquarters.

On the whole, says Spilhaus, the AGU will be very little changed. The biggest difference will be in its relationship to the IUGG, in which AGU fervently hopes to continue to play an active role. The proposed plan at present is that AGU, as spokesman for the U.S. geophysical community, would make recommendations for membership on the U.S. National Committee to IUGG.

The Academy has nurtured a number of scientific organizations which, like AGU, eventually outgrew it. The American Geological Institute and the American Institute of Biological Sciences were once part of the Academy. The U.S. National Committee to the International Radio Sciences Union (URSI) seems to be following the same route and though still a part of the National Research Council, now holds large scientific meetings. Says Newell: "After 52 years, AGU has certainly achieved adulthood. Now the parent has asked the child when it plans to leave home."

Princeton-Penn: Requiem for an accelerator

The Federal Government seems to be the country's only viable patron of large basic-science laboratories. This is the lesson of the terminal illness of the Princeton-Pennsylvania Accelerator, located on the campus of Princeton University, which gave up the ghost last week after an 18-month struggle for survival.

The PPA was a product of the palmy days of basic physics in the United States. The physicists wanted a medium-energy proton accelerator (its three-billion-electron-volt maximum would now be considered rather low energy) with a high intensity of protons per pulse in order to investigate important questions of detail in the structure of particle physics. They got it, at something less than the cost of a new military airplane.

The PPA worked very well. In somewhat less than a decade of operation it did yeoman service. But at the beginning of 1970, the Atomic Energy Commission was faced with the cruel choice of cutting the budgets for all its laboratories (already funded well below capacity) or sacrificing one. The Commission's High Energy Physics Advisory Panel recommended that the PPA was expendable if one had to go.

The PPA's director, Milton G. White, set out on a valiant quest to find other sources of funds. An important point in his campaign was the conversion of the PPA to heavy-ion acceleration. The physics and chemistry of heavy ions is a coming topic, and White felt that if the particle physicists no longer needed the PPA, here was a whole new field in which it could be useful. Accelerated heavy ions are also of promise in radiobiology, and there may have been a memory of Ernest O. Lawrence's famous dictum that when money is tight you can always get some by talking about curing cancer.

White got some money, including a sizable grant from the Fannie E. Rippel Foundation, which is precisely interested in curing cancer, and he kept the laboratory going long beyond the end of 1970, when the AEC had contemplated shutting it down. In the course of that the PPA achieved the first acceleration of heavy ions (nitrogen) to billion-volt energies and did some interesting radiobiological experiments.

But now the money has run out, and the university has decided to shut down the PPA. In part, the demise of PPA reflects the competition it faced in its new field. A number of accelerators specifically built for heavy ions are competing for the limited money, and in the high-energy range (for heavy ions) the management of the Lawrence Berkeley Laboratory set out at the same time to prove that their Bevatron (a six-billion-volt proton accelerator) could also accelerate heavy ions, and it took them to higher energies than the PPA could reach. □