IDEA 256

Shining light on grey literature: Preserving and promoting data collections and reports from the early days of North American arctic research.

(Submitted by Florence Fetterer, for the National Snow and Ice Data Center, World Data Center, Boulder. 15 March 2004.)

The United States and Canada originated intensive programs of arctic data collection as a result of military interest beginning in the late 1940s and extending into the 1960s. The Arctic Research Laboratory (ARL) was established near Barrow, Alaska by the U.S. Office of Naval Research in 1947. In the same year the U.S. Air Force established a research station on ice island T-3. Canada and the U.S. declared the Distant Early Warning line of radar and weather observation stations operational in 1958. The first measurements by western scientists for ice/ocean/atmosphere heat flux calculations were made on drifting stations supported by ARL in the 1950s and 1960s. The U.S. National Science Foundation joined the Office of Naval Research in supporting the Arctic Ice Dynamics Joint Experiment (AIDJEX), which took place in the Beaufort Sea in 1975 and 1976. A collaboration between the United States, Canada and Japan, AIDJEX was the first large scale coordinated sea ice observation program undertaken in the West. Meteorological and ocean data were collected from four manned ice floe camps and from instrumented buoys.

Much if not most of the data collected during these early programs are now in digital archives at the World Data Center for Glaciology, Boulder, and NOAA National Data Centers. However there are numerous “grey literature” reports on these activities, providing historical context, documentation of data collection methods, and additional metadata that is useful to present day researchers. These reports are often difficult to access. Generally they had limited print runs and can be obtained only through interlibrary loans.

We propose increasing the usage of a selection of these early reports by reproducing them in electronic form, and making them available on CD-ROM. We would first query the small community of scientists familiar with this genre to learn what reports would be most valuable to today’s arctic research community. When appropriate, we would propose collaboration with libraries or institutes holding the reports, for example reports from the Arctic Institute of North America housed at the University of Calgary Library, or the AIDJEX bulletins from the University of Washington. (There are 40 AIDJEX bulletins containing on the order of 4000 pages of original Arctic studies. Many of these reports convey playfulness and sense of discovery that today’s IPY participants will enjoy).

This document preservation and distribution effort would complement the spirit of IPY 2007 by recalling for present day scientists and graduate students the data collection accomplishments of earlier generations. Practically, it would put real data and information in the hands of those planning IPY expeditions. It could be broadened and carried out as a collective endeavor, with research groups generating a list of relevant reports and then collaboratively scanning them. The World Data Centers for Glaciology would then compile and disseminate CD-ROMs containing PDF files.

Some example report titles follow:


