

Mitteilungen

Adoption of a Standard Projection for Polar Region

By S. P. Srivastava *

A large number of papers concerning the geology and geophysics of the Arctic region have been published over the past decade. When one tries to compare the observations as reported in these publications, one invariably is faced with a problem of transferring the information from a set of diagrams published in one publication onto a set of diagrams published in some other publications. The problem is not insurmountable provided the diagrams use the same projections north of 70° N.

The majority of the publications use either Mercator projection or Polar projection for regions north of 70° N. The distortion in Mercator projection in such high latitudes is so large that transferring information from one projection to another can give rise to large errors. Thus to avoid such errors and to make the task easier for the fellow workers, a resolution was put forward to those attending the Conference on Geophysics, Geology, Geomorphology and Geodesy of Spitsbergen in Hamburg on 2 and 3 October 1978 which states

To facilitate compilation of geological and geophysical observations made by different organizations in latitudes north of Iceland (65° N), it is recommended that a common projection be used by all workers. It is further recommended that a polar stereographic projection be used for this purpose.

The resolution was unanimously adopted by those present. It is thus requested that those working in regions north of latitude 65° N should use Polar Stereographic projection for compiling and publishing the results of their investigations. The scale used for such compilations is immaterial as they can easily be adjusted using photographic techniques by those interested.

Two excellent maps giving the physiography of the surrounding land masses for this region have recently been published and both of them use the same projection but different scales. They also give the major bathymetric features of the oceanic regions. Because these maps are readily available to everyone and because of their excellency in cartography, it is recommended that a Polar Stereographic projection as used in these maps be used by all workers. The maps are:

1. The map of the Arctic Region. By B. C. Heezen and M. Tharp.
Published by American Geographical Society,
The World 1:5,000,000 Sheet 14.
Projection — Stereographic
Scale — 1:5,000,000 at 71° N.
Available from: The American Geographical Society, Broadway at 156th Street,
New York, N. Y. 10032 (U. S. A.)
2. General Bathymetry Chart of the Oceans (GEBCO). — The Arctic, Map No. 5.17
Projection — Polar Stereographic
Scale — 1:6,000,000 at zero degree
Published by the Canadian Hydrographic Service, Ottawa, Canada. (For details see
paper by JOHNSON et al. in this issue.)
Available from: Hydrographic Chart Distribution Office, Dept. of Fisheries and
Environment 1675 Russell Road, Ottawa, Ont. K1G 3H6 (Canada).

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