

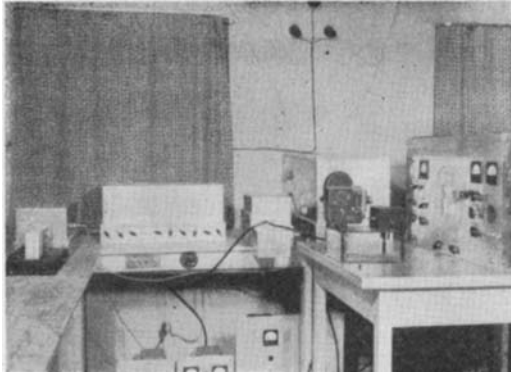


Fig. 4. A corner of the recording room showing the 20 kW panoramic recorder with 16 mm automatic film camera.

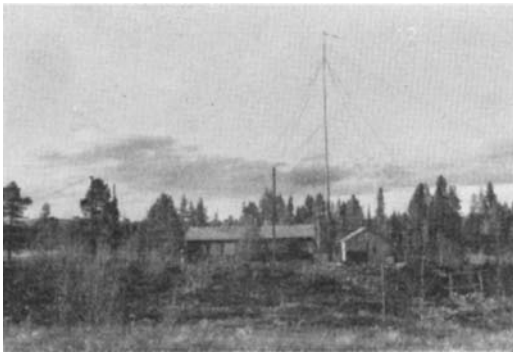


Fig. 5. General view of the main observatory buildings.

To the right automatic recording 16 mm film camera in front of 12GP7 scope tube.

Fig. 5 is a general view of the main buildings with the central mast carrying the aperiodic antennas for vertical broad band radiation. Fig. 6 finally is a picture of the observatory with the surrounding forests and mountain ranges which



Fig. 6. The observatory is surrounded by forests and long mountain ranges.

certainly must attract the attention of every nature loving scientist.

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We hope that this new observatory will be a valuable link in the international chain of ionospheric observatories and we hope that it will contribute both to our knowledge of the regular ionospheric phenomena and of the complicated and fascinating relations between solar, geomagnetic, auroral and ionospheric phenomena.

Our thanks are especially due to the *National Research Councils for the Technical and Natural Sciences* which have generously facilitated the development of the observatory equipment and the erection of the observatory itself. Our thanks are further due, and are cordially extended, to Professor ROLF M. SIEVERT for his encouraging support and to the *Wallenberg Foundation* for general support of our research activity.

Olof E. H. Rydbeck

Chalmers University of Technology,
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New publications

Glaciers and Climate

Among those scientists who in recent years have been particularly concerned with the progress of the glaciological science, Professor Hans W:son Ahlmann of the University of Stockholm has been one of the leaders and pioneers. On the fourteenth of November 1949 Ahlmann entered his sixty-

first year. At this anniversary his colleagues in different countries, his many friends and grateful pupils have wished to honour him and their homage has taken the form of a beautiful volume including geophysical and geomorphological articles dealing primarily with glaciers and their relation to climate, by thirtyfour scientists representing different parts of

the world. The »contributions are dedicated to Hans W:son Ahlmann as a tribute from the Swedish Society for Anthropology and Geography and from a large number of his colleagues, friends and pupils». The volume was edited by F. Hjulström, University of Uppsala, L. Kirwan, Royal Geographical Society, London, C. M:son Mannerfelt, University of Stockholm, C.-G. Rossby, University of Stockholm and University of Chicago, Å. Wickman, Litographic Office of the General Staff, Sweden, and A. Ångström, Swedish Meteorological and Hydrological Institute, Mannerfelt being the chief-editor. It is issued as the first two numbers of the »Geografiska Annaler» of 1949 under the heading »Glaciers and Climate» and distributed by Generalstabens Litografiska Anstalt, Stockholm, Sweden.

The articles can be separated in different groups according to their scientific content. The volume starts with a short note »Glaciers and climatology: Hans W:son Ahlmann's contribution» by L. Kirwan, C. M:son Mannerfelt, C.-G. Rossby and V. Schytt, which concludes with some beautiful pictures from the glaciated regions Ahlmann has visited during different expeditions. Among the articles then following there are not less than twelve devoted to the matter of climatic variations and related problems. Some of them deal with purely climatic studies as the following: A. Defant, Austria: Konvektion und Eisbereitschaft in Polaren Schelfmeeren. — J. Eythorsson, Iceland: Temperature variations in Iceland. — B. Helland-Hansen, Norway: Remarks on some variations in atmosphere and sea. — H. E. Landsberg, USA: Climatic trends in the series of temperature observations at New Haven, Connecticut. — G. H. Liljequist, Sweden: On fluctuations of the summer temperature in Sweden. — S. Pettersen, Norway: Changes in the general circulation associated with recent climatic variation. — H. C. Willett, USA: Solar variability as a factor in the fluctuations of climate during geological time. — A. Ångström, Sweden: Atmospheric circulation, climatic variations and continentality of climate. They all give contributions to the discussion on the recent climatic variation and its showing up in changes of meteorological elements and the general circulation of the atmosphere. As far as Willett's article is concerned also suggestions for an explanation of the causes of climatic changes are given.

Closely related to these articles are some others which primarily deal with glaciological and Quaternary geological evidences for climatic variations:

C. E. P. Brooks, Great Britain: Post glacial climatic changes in the light of recent glaciological research. — I. Hustich, Finland: On the correlation between growth and the recent climatic fluctuation. — J. Leighly, USA: On continentality and glaciation. — G. Manley, Great Britain: The snow-line in Britain. — E. Nilsson, Sweden: The pluvials of East Africa. — C. C. Wallén, Sweden: The shrinkage of the Kårsa Glacier and its probable meteorological causes.

Ahlmann's scientific contributions have to a large extent been devoted to purely glaciological problems. It is therefore reasonable that there should also be articles concerned with snow and glaciers in a more limited meaning: G. J. Klein, Canada: Canadian survey of physical characteristics of snow-covers. — W. V. Lewis, Great Britain: Glacial movement by rotational slipping. — E. de Martonne, France: La dyssymétrie des glaciations régionales et ses facteurs. — V. Schytt, Sweden: Re-freezing of the meltwater on the surface of glacier ice. — G. Seligman, Great Britain: Research on glacier flow. — C. Troll and K. Wien, Germany: Der Lewisgletscher am Mount Kenya. — W. Werenskiöld, Norway: Glacier measurements in the Jotunheim.

Other branches of physical geography are also represented in the publication through some articles. Two of them are particularly dealing with Ice-age problems: R. Foster Flint, USA: Pleistocene drainage diversions in South Dakota and C. M:son Mannerfelt, Sweden: Marginal drainage channels as indicators of the gradients of quaternary ice caps. Two articles discuss other geological tools in the study of climatic changes than the glaciers: S. Thorarinsson, Iceland: Some tephrochronological contributions to the vulcanology and glaciology of Iceland and A. Noe-Nygaard, Denmark: Samples of volcanic rocks from the sea bottom between the Faroes and Iceland. Articles which can be said to represent the field between Quaternary geology and geomorphology are: F. Hjulström, Sweden: Climatic changes and river patterns. — H. Baulig, France: Causalité et finalité en géomorphologie. — R. Blanchard, France: Le problème du Temiscamingue. — G. Lundqvist, Sweden: The orientation of the block material in certain species of flow earth. — A. Schou, Denmark: Danish coastal cliffs in glacial deposits. — J. Sölch, Austria: Ueber die Schwemmkegel der Alpen. Of a quite general geophysical character is finally: H. U. Sverdrup, Norway: Theoretical tools in geophysics.

C. C. Wallén.

Arkiv för geofysik

Since the beginning of this century the Royal Swedish Academy of Science has published »Arkiv för matematik, astronomi och fysik», which has appeared in 36 volumes during these almost fifty years. Because of the increasing number of contributions during the last years the Academy recently decided to divide this series, covering such a large field of the natural sciences, into three different series, viz:

Arkiv för matematik,

Arkiv för astronomi,

Arkiv för fysik

and to add a new series devoted to geophysical contributions called *Arkiv för geofysik*.

As before printing and publication is handled by »Almqvist och Wicksells Boktryckeri», Uppsala and the separate issues will appear at irregular intervals.

Six issues will form one volume. With the new series the format has been increased to 175—250 mm, being more convenient, in particular from a geophysical point of view.

Vol. I No. 1 of »Arkiv för geofysik» will appear in December this year. This issue will contain the following papers:

1) NORINDER, HARALD & SIKSNA, REINHARDS: The measurements of the variation characteristics of the density of small-ions.

2) NORINDER, HARALD & SALKÅ, OSCARS: The effect of geological discontinuities on artificial lightning discharges as studied in a model test arrangement.

3) LÖNNQVIST, OLOF: A general method and a simplified formula for calculating effective radiation.

4) RAAB, LARS & RODSKJER, NILS: A study of the accuracy of measurements of the Väisälä radiosonde.

B. Bolin.