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RESOLUTIONS ADOPTED BY THE GENERAL ASSEMBLY
WHICH ARE TO BE BROUGHT TO THE ATTENTION OF
GOVERNMENTS AND INSTITUTIONS

ENGLISH TEXT

I. International Exchange Service

Having regard to the great importance of a rapid distribution of the publications of the International Union of Geodesy and Geophysics, the General Assembly instructs the Bureau of the Union:

(1) To inform the International Council of Scientific Unions that the transmission of the publications of the Union through the "Service des Échanges internationaux" has not hitherto satisfied the needs of the Union, the transmission often taking several months, and

(2) To suggest that the Council ask the "Service des Échanges internationaux" to ensure prompt transmission of publications from country to country and their immediate distribution in the receiving countries.

II. Recommendation for more Gravity Determinations

The International Union of Geodesy and Geophysics wishes to reaffirm its conviction of the great importance, not only for geophysical research, but also for the determination of the geoid, of more gravity work, especially in regions, on land and at sea, where no such work has been done.

Meanwhile, it desires to put on record its appreciation of the achievements in this field of geodetic departments and other bodies, and, in particular, to thank the navies of France, Great Britain, Holland, Italy, the United States and the U.S.S.R. for authorising, and their submarines for carrying through, such valuable programmes. It expresses the hope that these programmes will be resumed with energy as soon as circumstances permit.

III. Recommendation for Determining the Geoid by Astronomical Observations

The International Union of Geodesy and Geophysics, recognising the importance of the method of determining the form of the geoid by integration of values of the deviation of the vertical, either along lines or over networks, expresses the hope that all

countries will carry out such work in the way best suited to their special circumstances. The work of this nature mentioned in the "Rapport sur les deviations de la verticale" to the Washington Assembly provides examples of valuable progress in this field, particularly in India and Switzerland.

IV. Recommendation for Torsion Balance Observations

The International Union of Geodesy and Geophysics wishes to recommend that, in addition to other observations for determining the geoid, observations with the torsion balance should also be made at stations suitable for the purpose.

V. Recommendation for more Observations of Earth Tides

The International Union of Geodesy and Geophysics deems that the establishment of further stations provided with trifilar gravimeters and horizontal double pendulums, and at different distances from the coast, is necessary for the study of elastic Earth tides and variations in the elasticity of the rocks forming the Earth's crust.

VI. Recommendation for the Extended Use of the Photographic Zenith Tube

The International Union of Geodesy and Geophysics is of the opinion that it would be of great importance to geodesy and geophysics to extend the use of the photographic zenith tube to a number of stations throughout the world.

VII. Alternative Path of the Meridional Arc from the Arctic Ocean to the Mediterranean prolonged to Africa

The Bulgarian National Committee has already expressed its desire for rapid progress in the selection of an alternative path for the Meridional Arc from the Arctic Ocean to the Mediterranean prolonged to Africa (see the provisional programme for the Seventh General Assembly of this Union, *Bulletin Géodésique* No. 62, concerning the alternative path through Rumania, Bulgaria and Turkey, adopted at the Lisbon Assembly of 1933).

Following the proposal of the Bulgarian National Committee, the International Union of Geodesy and Geophysics will, after consulting the respective departments of Rumania and Turkey, select a definite route across the three countries. Through the continuous first-order network of Bulgaria, the selected route might pass through either Sofia or Rousse. The Military Geographical Institute of Bulgaria will make the necessary observations at the points where the selected route joins the triangulations of Rumania and Turkey.

VIII. Recommending the Charting of the Sub-Oceanic Crust

Whereas an accurate knowledge of the configuration of the underwater areas of the surface of the Earth is essential to all aspects of Earth science, the International Union of Geodesy and Geophysics calls attention to the desirability of a comprehensive programme for the proper charting of the sub-oceanic crust so as to show its true configuration.

IX. Recommending the Study of Rocks at High Pressures and Temperatures

In view of the need for accurate information regarding the behaviour of rocks at high pressures and temperatures, and of the fact that such information can be obtained only by—

- (a) prolonged, careful and skilfully directed research and experiment in the laboratory,
- (b) continuous collection of field evidence,
- (c) the computation and correlation of field and laboratory results,

the International Union of Geodesy and Geophysics hereby stresses the importance of a continuous study of the deformational properties of rocks, and its desire to assist, wherever possible, the development and pursuit of research designed to contribute materially to this important field of earth science.

X. Acknowledges the Progress of Seismological Work at Sea

The International Union of Geodesy and Geophysics notes with satisfaction the progress of seismological work at sea, and the part taken in this work by the British Navy, by the Coast and Geodetic Survey and by the Woods Hole Oceanographic Institute of the United States.

XI. New Seismological Stations

The International Union of Geodesy and Geophysics learns with great satisfaction of the establishment of new seismological stations in several regions in which there had previously been no efficient seismographs. Congratulations and thanks are offered to the authorities responsible for providing these stations, viz. Bermuda, Fiji, Papeete, Martinique, Montserrat, Brisbane and Johannesburg.

XII. Canadian Seismological Stations

The International Union of Geodesy and Geophysics notes with satisfaction the continuation of the seismological stations at

Toronto and Victoria by the Government of the Dominion of Canada.

The geographical position of Victoria and its long history make it essential that this station should not lapse. If, at some future time, stations for geophysical investigation should be established in central and northern Canada, it would be highly desirable to include seismographs in the equipment.

XIII. Proposed Seismological Station at Tristan da Cunha

The International Union of Geodesy and Geophysics, having learned that the establishment of a meteorological station in Tristan da Cunha by the Government of the Union of South Africa is under consideration, asks the Government to include seismographs in the equipment of the Station. Seismological observations at such a station would be of great value in the location of earthquakes in the southern hemisphere and in the study of the structure of the bed of the Atlantic Ocean.

XIV. Seismological Stations in the Pacific Ocean Area

The International Union of Geodesy and Geophysics endorses the views expressed in resolutions of the Pan-Pacific Science Congress, meeting in San Francisco in August, 1939, relative to the need for establishing additional seismological stations in the Pacific Ocean area.

Reports to this Union emphasise the need for more extensive studies of earthquakes within and about the Pacific Basin, and that for the solution of the problem involved international co-operation is essential. They call attention in particular to the value of records which could be obtained by the establishment of seismological stations in south-eastern Australia, New Guinea, the New Hebrides, southern Argentina and southern Chile, and by installing modern radio time controls in the otherwise well-equipped stations in Mexico. The Union calls the attention of the governments concerned to the international scientific service that might be rendered by maintaining seismological stations, and it also expresses its gratitude to the Carnegie Corporation of New York for supplying funds to equip the newly established station at Bogotá, Colombia.

XV. Provision for Geomagnetic Determinations at Sea

The International Union of Geodesy and Geophysics strongly recommends that governments interested in the magnetic survey of the oceans make provision for the building of non-magnetic ships to continue accurate geomagnetic determinations at sea.

XVI. Recommending the use of Networks of Synoptic Radio-Sonde Stations

The International Union of Geodesy and Geophysics has been impressed by the new possibilities for theoretical and practical meteorology opened by the radio-sonde ascents, and desires to express its wholehearted support of the resolution passed by the International Meteorological Organisation in Salzburg in 1937 concerning the desirability of the establishment of networks of synoptic radio-sonde stations.

XVII. Recommending the Record and Storage of Geodetic and Geophysical work carried out by Petroleum and Mining Companies

It is the opinion of the International Union of Geodesy and Geophysics that an agency should be established in each member country, in which geodetic and geophysical work is done by petroleum and mining companies, to secure from these companies geodetic and geophysical data which may no longer be of commercial and economic value to them. Such data would be of great scientific value, and it is hoped that National Committees will use them.

XVIII. Pan-American Institute of Geography and History

The International Union of Geodesy and Geophysics expresses its high appreciation of the activities of the Pan-American Institute of Geography and History for the co-ordination and encouragement of scientific investigations in the various States of the American continents, and tenders a cordial invitation to this Institute to co-operate in furthering common scientific interests and, if possible, to send representatives to the Assemblies of the Union.

XIX. Isostatic Institute of Helsinki

The International Union of Geodesy and Geophysics expresses its high appreciation of the scientific work already done by the International Isostatic Institute at Helsinki under the leadership of Dr. W. Heiskanen, and expresses the opinion that the continuation of this Institute is of the greatest importance for all the sciences engaged in the study of the Earth's crust.