

E. P. Fedorov as President of Commission 19 of IAU During the Period of the Reorganization of ILS

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Evgeniy Pavlovich Fedorov (1909-1986) was President of Commission 19 of the IAU in 1955-1961. In this period the future of the ILS was discussed very actively and the plan for future study of the polar motion was elaborated. E. Fedorov was the organizer and the leader of these preparatory works.

He was editor of the collection of papers "On the present state and the future of latitude investigations" (1960, Moscow). In this collection well-known scientists discussed their opinions on the state latitude observations and their improvement. Among them where: H. Spencer Jones, P. Melchior, T. Hattori, I. Fleckenstein, N. Sekiguchi, W. Munk, R. Vicente, A. Young, E. Fedorov, M. Torao, N. Stoyko. In that time Fedorov wrote on the problem of the ILS. The inception of the ILS was preceded by a period of thorough discussion of various aspects of latitude work. By the end of the 19th century polar motion had become a problem of vital importance in astronomy and geophysics. Many efforts were made at that time to find the best means for obtaining the most accurate polar coordinates. As a result a plan of international cooperation for the study of polar motion was worked out.

For some 60 years the ILS kept working in accordance with this plan and has provided data for practical needs and theoretical investigations pertinent to polar motion. However, doubts arose from time to time as to whether the initial plan of the ILS was still adequate to meet new requirements and facilities. These doubts had been gradually gaining ground, and by 1950 most of the interested scientists were inclined to believe that the present organization of latitude work required complete revision. This is quite natural, for the work had undergone considerable expansion and change since the inception of the ILS. However, the striking fact is that after more than 60 years of extensive latitude investigations we have a diversity of opinions as to the future plan of these investigations, and, moreover, many basic problems related to this plan still remain obscure. Some astronomers have even begun to doubt whether any really useful purpose is being served by the continuation of observations at the international stations.

The next years should be a period of transition from the present organization of the study of the polar motion to more advantageous organization. Fedorov was organizer and chairman of the SOC of the Symposium on the future ILS at the XII General Assembly of the IUGG (1960, Helsinki, Finland). The reports or communications were made by well-known scientists: Cecchini, Jeffreys, Melchior, Danjon, Markowitz, Stoyko, Munk, Vicente, Murray, Guinot,

et al. The resolutions adopted by this Symposium had marked effects, in particular:

- The Symposium considers that ILS should be reorganized in the future into the International Polar Motion Service, which will utilize both time and latitude observations made at both independent stations and the stations of the present ILS.
- A small working group should be nominated to establish a definite plan for the organization of international cooperation in the study of the polar motion and then to direct the work in the future. The group should submit recommendations to the IAU concerning the future place of the Central Bureau of the ILS.
- Results obtained with ILS and independent instruments should be published in detail as soon as practicable.
- The following problems should be investigated further:
 - a. Reduction to a uniform system and careful analysis of the data of the ILS.
 - b. Elaboration of criteria for the precision of latitude observation and comparison, by means of these criteria, of observations made with different instruments.

At the XI General Assembly of the IAU at Berkeley, USA in 1961 the structure of the new International Polar Motion Service (IPMS) was confirmed. The direction of this service was carried out by Scientific Committee. Fedorov and Guinot were the representatives of the IAU in this Committee. According to Fedorov's suggestion, the Central Bureau of the ILS was placed in Mizusawa with director T. Hattori. In 1972 Fedorov visited Mizusawa with lectures and helped in the work of the Bureau of IPMS. The IPMS began to publish the coordinates of the pole based on all latitude measurements on a current basis with the issue for January 1975 of the Monthly Notes of the IPMS. In this issue the coordinates for 1974 were also given. Solutions starting from 1962, based on latitude alone and also based on latitude and time were given in the IPMS Annual Reports for 1971 and 1974.

References

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