
Comparison of Magnetic Observations in the Northern and Southern Hemispheres (Summary Only)

P. N. Mayaud

Phil. Trans. R. Soc. Lond. B 1977 **279**, 273

doi: 10.1098/rstb.1977.0089

Email alerting service

Receive free email alerts when new articles cite this article - sign up in the box at the top right-hand corner of the article or click [here](#)

To subscribe to *Phil. Trans. R. Soc. Lond. B* go to: <http://rstb.royalsocietypublishing.org/subscriptions>

Phil. Trans. R. Soc. Lond. A. **279**, 273 (1977) [273]

Printed in Great Britain

Comparison of magnetic observations in the Northern and Southern Hemispheres (summary only)

BY P. N. MAYAUD

Institut de Physique du Globe, 4 Place Jussieu, Tour 14, 75230 Paris, France

A special feature of the regular daily magnetic variation S_R at sub-auroral latitudes in both hemispheres can be considered as equivalent to the temporary flow, during a few hours of each U.T. day, of a current circulating all around the auroral zone (clockwise in the Northern Hemisphere, anticlockwise in the Southern Hemisphere); its intensity is the largest at the summer of each hemisphere. This current may be related to the S_R variation inside the polar caps, which is deeply different from the S_q^p described by Nagata and Kokubun (in fact, that variation is nothing but a residue of the S_D variation on quiet days on these regions) and from the Mansurov–Svalgaard effect. The source of this phenomenon, an integrant part of the S_R , is probably cor-puscular since it still occurs during the polar night. Further investigations would be of great interest.