

*Book review*

**Noctilucent Clouds/Leuchtende Nachtwolken  
(Theoretical concepts and observational implications)  
by Wilfried Schröder**

By kindness of the author, Geophysical Institute obtained a couple of copies of the monograph on the very intriguing phenomenon which was apparently never seen in geographical position of Croatia. Exclusiveness of the problem reflects itself also in the fact, that occurrence of the clouds is acknowledged from 1885 (two years after destruction of the Krakatoa volcano). The monograph has 339 pages with lot of graphs and one colour picture. The monograph has got label of Science Edition/IAGA, D-28777 Bremen, 1998, but it does not include board of editors and is obviously an author's own edition.

Contents is divided into five chapters: Mesosphere and Noctilucent Clouds, The Nature of Noctilucent Clouds, Climatology of Noctilucent Clouds, History, and Reviews. The book is a compilation of works which have been published in Germany by the author during the last decades mainly in issues which are out of the main-stream journals, and which previously geographically belonged to the Eastern Europe – therefore greatly escaping the attention of scientific public. Some of the contributions are written in German, some in English.

However, this is not just a collection of already published papers – reprints. According to division into chapters, papers are interlinked by descriptions, explanation and broad discussion of the problems they are focused on, giving more recent information.

First chapter serves as an introduction giving a broad picture of the phenomenon. The chapter on the nature of clouds traces development of ideas from the beginning to recent times. Chapter on climatology, less articulated, reprints works on diurnal frequencies, wave structure and dynamics of clouds, and describes some results of the most recent observations in Germany. Chapter on the history gives valuable information on the beginning of study of noctilucent clouds, where, for example, we can learn about early contribution of German pioneers in the field, who laid the base for the development of aeronomy. Text exposes very fine details for which the monograph gets its merits.

The monograph can be considered as a contribution to the geophysics with strong culturological accentuation. This is understandable since the main interest of the author is history of geophysics and meteorology, and in

lesser extent, research in climatology of the noctilucent clouds – where he is proponent of the idea that seasonal changes of the global circulation from winter to summer systems and vice versa are prerequisites for the outbreak of clouds. He is engaged at the Geophysical Station Bremen-Rönnebeck, he is a member of the IAGA Interdivisional Group on History and is known as co-author (with M. Gadsden) of the book »Noctilucent Clouds« (Springer Verlag, New York, 1989). He published also a monograph on the history of auroral research.

The monograph has no subject index, neither a complete list of references (all mentioned papers were not indexed in the corresponding reference lists), which fact largely diminishes the usefulness of the text to be used by research students. Graphical and technical outfits do not keep with the scientific message.

*Vladis Vujnović*