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■ 28–30 November 2007 **50th Anniversary** of the Global Carbon Dioxide Record Symposium and Celebration, Kona, Hawaii, USA. Sponsors: NOAA; Scripps Institution of Oceanography; Peabody Energy Corp; others. (M. Marquis, NOAA/ESRL, 325 Broadway, Boulder, Colo., USA; Tel.: +303-497-4487; Fax: +303-497-6951; E-mail: Melinda.Marquis@noaa.gov; Web site: http:// www.co2conference.org)

LETTERS

This conference brings together leaders of business, government, and science to discuss the global  $\rm CO_2$  record, climate change, and what is needed from future  $\rm CO_2$  measurement systems to monitor the efficacy of mitigation efforts. The conference will include a keynote speech by U.S. National Academy of Sciences president Ralph Cicerone and presentations and panels focusing on a range of concerns.

■ 26–28 February 2008 Symposium on Meteorology: Mesoscale Meteorology and

## Data Assimilation, Norman, Oklahoma, USA. Sponsors: University of Oklahoma; Chinese Academy of Sciences; Natural Science Foundation of China; others. (P. Lamb; Tel.: +1-405-325-3041; E-mail: plamb@ou.edu; Web site: http://conferencepros.org/CIMMS/ InternationalMeterologySymposium.htm)

The goals of the first U.S.-China symposium on meteorology are to define the state of knowledge for mesoscale meteorology and data assimilation, and to identify the most important challenges for the next decade. Topics include observations of mesoscale phenomena; theory of mesoscale phenomena; and connections between mesoscale phenomena, regional climate, and largerscale circulation.

of different aurorae was compiled based on their new classification.

## Comment on "Amateur Observations of Atmospheric Phenomena During the IGY"

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Following the article by *Schröder* [2007], we point out the key roles played by several Russian scientists in the planning and implementation of observations of aurorae during the International Geophysical Year (IGY).

The leader of the program and the organizer of the visual observational network in the USSR was Nikolay V. Pushkov (1903–1981), director of the Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation (IZMIRAN, Troitsk, Russia, now called the Pushkov Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation). As a member of the Comite Special de l'Annee Geophysique Internationale (CSAGI), Pushkov was actively involved in the inception of the international program of visual observations of aurorae that was accepted for the period of the IGY.

By the beginning of the IGY, Pushkov had prepared a campaign that incorporated aurorae observations by volunteers, amateur astronomers, and meteorologists from 620 locations within the USSR and had established a group at IZMIRAN to collect, systematize, and analyze visual observations. A special system of World Data Centers (WDC) was created for the international exchange of observational data obtained in various countries. One of the universal WDCs for solar-terrestrial physics (WDC-B2 for STP) was based in Moscow, with another (WDC-A) based in the United States. Pushkov, who supervised the WDC-B2, thought that the efforts of the World Data Center could be successful if specialists from different branches of the STP participated in its activity. Thus, he organized WDC-B2 as an IZMIRAN department staffed by IZMIRAN scientists.

The August 1958 CSAGI assembly in Moscow recommended compiling auroral indices and visoplots (tabular plots that take into account the three coordinates involved in auroral observations: time, longitude, and latitude) in eight longitudinal sectors, including three sectors on geomagnetic longitudes of 100°–235° at WDC-B2. The total visoplots summary was published in *Annales of the IGY* (I.G.Y. Auroral visoplots, edited by B. McInnes, vol. 29, Pergamon, 1964).

Sergei I. Isayev (1906–1976) was a pioneer of visual observations of aurorae in the USSR. Isayev took part in observations in 1932–1933 of aurorae and geomagnetic field variations in the auroral zone at geomagnetic latitudes ~65° during the Second International Polar Year at the Matochkin Shar observatory in the Novaya Zemlya archipelago. He also participated in expeditions that observed aurorae in the Kola Peninsula in northern Russia in 1948–1949, and he took an active part in the preparation for publication of the new *International Auroral Atlas* (Edinburgh, University Press, 1963). This atlas with photographs

Alexander I. Lebedinsky directed photographic aurorae observations in the USSR during the IGY. In 1948-1950, Lebedinsky built and used novel equipment that allowed for automatically photographing the sky every minute with all-sky cameras (C-180, providing 180° coverage of the sky) and patrol spectrographs C-180-S (see Annales of the IGY, 11, 133-144, 1961). Equipment of this type was widely used during the IGY at dozens of USSR stations in the Arctic and Antarctic. At the CSAGI assembly in Moscow, it was recommended that the IGY annals should include a volume dedicated to all-sky camera data in the form of ascaplots (diagrams that summarize the information recorded on ascafilms, all-sky camera auroral films). This time-consuming work involved watching hundreds of kilometers of film and was carried out jointly by groups at Moscow University and IZMIRAN; results were published in Annales of the IGY (I.G.Y. Ascaplots, edited by W. Stoffregen, vol. 20, parts 1 and 2, Pergamon, 1962). Ascaplots fulfilled the goal, planned by S. Chapman prior to the beginning of the IGY, of building isoauroral contour maps (i.e., lines of equal frequency of auroral appearance in the zenith). The analysis of observations material included in the ascaplots and ascafilms led to the appearance of a new paradigm-the auroral oval, which is the region with the most frequent appearance of aurorae, located during day hours ~10° nearer to the geomagnetic pole than during night hours.

## Reference

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Schröder, W. (2007), Amateur observations of atmospheric phenomena during the IGY, *Eos Trans. AGU*, 88(12), 141–143.