IUGG Birmingham, England 21 July, 1999

Working Group Chair David Boteler called the meeting to order at 7:15 PM.

Reports on Indices

Michele Menvielle – Report on provisional and definitive values of AU, AE, AL, aa (Kpa), am (Kpm), Kp, and Dst indices.

Efforts in the last two years focused on developing a web site that will serve the community as a doorway to all indices. The International Service of Geomagnetic Indices (ISGI), is now providing information and data on Quick Look (QL), Provisional and Definitive indices and the new Longitude Sector Activity indice. See the web site at: http://isgi.cetp.ipsl.fr/

M. Menvielle requests the Working Group undertake an assessment or determination of users needs. This recommendation was passed and a task force established including Richard Holme of GFZ and Chris Balch of SEC/NOAA. The task force will attempt to determine:

- Who is using what indice
- What are they using indice for
- On what time scale (how timely) do users need indices (QL, Provisional and definitive values)

The task force should report their findings to Susan Mclean for posting on web site and publication in the IAGA News.


Indices available on Web at: http://www-app3.gfz-potsdam.de/kp_index/index.html

Toydrish Kamei - World Data Centre for Geomagnetism, Kyoto - Report on Ae & DST

DST Providing QL Provisional and final values.

All values are available on line from the WDC (http://swdcd.db.kugi.kyoto-u.ac.jp/) and also linked from ISGI (http://isgi.cetp.ipsl.fr/)

- Quick Look (QL) Dst is current to within 1 day.
- Dst Provisional is current to approximately 1 year of present.
- Dst final is about one and one-half year delayed.

Ae providing QL, P, Final

- QL since ~ January 1999 providing QL Ac; delays of 1 day
- Provisional – current through 1994
- Final – complete through 1988

The computation of Ae is severely impacted by the availability and quality of data from observatories, especially CWE, which closed. Dr. Kamei requests the Working Group V2 submit a resolution from IAGA supporting early establishment of a replacement station for Cape Wellen. A group, consisting of Toyo Kamei, Susan McLean, Volodya Papitashvilli formed to word the resolution for Division V. Dr. Charlie Barton recommended also approaching ICSU with a request for funds to support a special effort to process backlog of data. Toyo Kamei would need to identify resources needed, approximate
costs and show the cross organization use of the Ae index.

**Polar Cap Magnetic Activity (PC) Index**

During the IAGA 1997 (Uppsala), Working Group V2 formed a task force to prepare a report on the Polar Cap Magnetic Activity (PC) Index for circulation within the community. The task force did not complete the report in time for IAGA, Birmingham, however the World Data Centre for Geomagnetism, Copenhagen has a brief report on the PC Index available at URL (http://web.dmi.dk/fsweb/Projects/wdcc1/pcn/pci-iaga.pdf). Because the PC Index is widely used and referenced in literature, many feel the Working Group should recognize it as an IAGA index. Concern about the long-term ability to derive the index was expressed. Therefore, Dr. Troshichev, with Dr. Rassmussen and Dr. Papitashvili will produce report describing the PC family, method of producing, and use of index in sufficient detail to enable others to continue to produce the index. The report should include such things as a table of coefficients. Richard Coles and Michelle Minvielle will referee the report. Upon completion of this process, the WGV2 (chairs) will draft a letter for the President of IAGA to send to the institutes operating Thule (Greenland) and Vostok (Antarctica) stations. The letter will inform the institutes of the value of the PC index, IAGA’s intention to adopt the PC Index as an official IAGA index, acknowledge their past support and look forward to continuing support for these key stations. Dr. Barton offered to review letter.

**Election Of New Offices**

Susan McLean nominated and unanimously supported for chair. Toydrishi Kamei nominated and unanimously supported for co-chair (indices). Toby Clark nominated and elected (in absentia) provisionally pending his acceptance, as co-chair (forecasting). Thanks for a job well done were given to David Boteler.

**IAGA 2001 - Suggested symposia**

- Indices with an emphasis on uses of rather than production of index. Kamei and Balch conveners.
- Modern techniques for data acquisition and dissemination; 1/2 day IAGA and 1/2 IASPEI McLean and Iyemori IAGA conveners.
- Practical applications, monitoring and predicting geomagnetic hazards; 1/2 day perhaps with Division III. T. Clark (UK), Boteler, Koskinen (Finland) Division V conveners.

**IAGA2000 - New ASCII Data Exchange Format - S. McLean reporting for task force**

A task force was formed at the IAGA 97 to develop an ASCII based data exchange format to facilitate exchange of data between observatories, from observatory to data center, and from data center to data user. McLean and Boteler presented the results of this task force.

**GOAL:** Develop a Year 2000 compatible exchange format for definitive magnetic observatory 1-second, 1-minute, hourly, daily, and monthly values.

**Considerations:**

- Formats should be acceptable to both the WDC and INTERMAGNET to minimize impact on observers providing data
- Formats must carry century information in date
- Formats should be spreadsheet “friendly”
- For ease of use, data should be in ASCII rather than binary
- Improved precision for location and elements
- Allow for 4 or 5 character IAGA code
- Allow for descriptive header in data file
- Clearly identify type of mean
- Which and how many elements (X, Y, Z; all 7; what units)

**Candidates:**

Several format options were proposed either to modify the existing WDC exchange formats or to create new format options not tied to existing formats. The following summarizes each of the...
proposed format options. See the Open Forum on Format Recommendations at: (http://www.sprl.umich.edu/MIST/IAGA/wg2-formats.html)

- ASCII-based format from WDC C1 for Geomagnetism Copenhagen
- Updated current WDC format from WDC C2 for Geomagnetism
- ASCII-based format from WDC A Boulder & GSC

The Working Group agreed in principle on an ASCII format similar to the Boulder and Copenhagen formats and recommended a small group form to finalize the format at the IUGG. The group consisted of S. McLean, T. Kamei, V. Papitashvilli, O. Rassmussen, S. McMillan, and others. The resultant IAGA format is described at http://www.ngdc.noaa.gov/IAGA/vdat/iagaformat.html

Meeting adjourned at 9:30 PM