

Quote of the Month:

"The astronomical Columbus who was to lead an expedition into the new worlds was Edwin P. Hubble. Born in Marshfield, Missouri....he was taken to a suburb of Chicago, where his lawyer father was engaged in the insurance business...where the boy attended high school...and excelled in all forms of athletics...A sports promoter who saw him in action wanted to train him to fight Jack Johnson, then heavyweight champion of the world. But nothing came of this offer, and at twenty-one Hubble's keen mind took him to Oxford University as a Rhodes Scholar...While preparing for his doctorate in astronomy he showed his unusual powers as an observer in a paper he published in 1916 which dealt with *A Photographic Investigation of Faint Nebulae.*"

Bernard Jaffe

1. Meeting began at 11:30 am and adjourned at 1:30 pm.
2. Members present: Bergschneider, Breed, Cherington, Collier, Fischer, Foley, Hodge, Keen, Kithil, Yarnell.
3. Melanie Fennema-Jonker apprised the group of the status of the Allstate grant application which is due next week. The members provided her with topics that they have and will lecture on. She asked for methods of measuring the outcome success of our projects. We suggested evaluation forms be prepared. In addition, we shall keep a record of the number of presentations given by our members.

All present expressed our appreciation to Melanie for her work on this task.
4. I reminded everyone to submit to Richard Keen copies of their Curriculum Vitae and resumes and chapter topics for the book, *Many Aspects of Lightning*, which he is coordinating. I also mentioned that according to yesterday's sports page the airplane in which the Denver Nuggets were travelling was struck by lightning as it approached Atlanta's Hartsfield airport at 4:15 am on March 9. Later that day on the basketball court Atlanta beat Denver by a score of 99-88.
5. Dan Breed reported that he is looking for the cloud conditions that existed in Vail last September on the day one of our patients was struck by lightning. Dan, Phil Krider, Phil Yarnell, and I are putting together the clinical and atmospheric descriptions of that case. Dan reported that there are some difficulties in obtaining data on clouds in the mountains. He made the following three points:
 1. There are no radar data for the mountains from the National Weather Service.
 2. Satellite data may be useful, but it is expensive.

3. He believes another method of tracking the path of lightning storms may be valuable in this regard and has spoken with Phil Krider about this third possibility.

Dan will be speaking at the IUGG meeting (Boulder, July 3 and 4 1995) on the subject of Electrification of Clouds.

6. Kevin Bergschneider reported that with approach of the Golf season he will be soon be spending time on the golf courses on matters of lightning detection and protection.

7. Rich Kithil reported that he will send to our members before the next meeting suggested bylaws for LDC. Michael Foley will join Rich in this project. Rich has been on the seminars tour. He presented at 2 seminars for the National Safety Council in Orlando, FL. He also presented 6 seminars on Safety and Risk Management for ATT. Rich suggests that LDC could be involved in these types of efforts.

He reported from the NewsBank the following information:

According to a study at Eastern Michigan University during the years 1959 to 1992 in Michigan there were 589 lightning injuries and 90 fatalities.

Rich reported from a conversation with an airplane pilot of their concern about the fiber composite material used in the manufacture of modern planes. Lightning could potentially cause burns in these materials. Apparently, as a safety measure, microscreens of copper in the forms of grids are imbedded in the fiber material.

8. Richard Keen reported that the thunderstorm season arrived in February. There were 2 events. One in Thornton occurred in the line of a snow squall. Rich will bring copies of his books to our next meeting for those members who would like to purchase them. Rich has written Skywatch, Skywatch East, and books on Michigan and Minnesota weather. He is currently working on a book on Colorado weather, and of course beginning on the book to which our members will contribute chapters.
9. George Hodge distributed a handout entitled: Frequently Asked Questions about Lightning. The material is based on information by Kerry Anderson of the Canadian Forest Service. George also indicated that he will be summarizing the controversial topic of low frequency EMF as a potential health hazard.
10. Michael Foley distributed a list of potential new names for LDC. His names include the following:
 - International Institute for Lightning Studies
 - Institute for Lightning Studies
 - Institute for Lightning Research
 - Center for Lightning Research

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Center for Lightning Studies
International Center for Lightning Studies
International Center for Lightning Research
Center for Medical and Technological Studies of Lightning
Lightning Research Center
Center for Advancement of Lightning Studies
Center for Advancement of Lightning Research
Center for the Advancement of Medical & Technical Research of
Lightning Effects on Society
Consortium for Medical and Technological Studies of Lightning Effects
on Society
Lightning Data Center

Please select your five choices for the name of our group and send them by fax to Michael. His fax number is 797-2667. Your favorite selection should be given the number 1.

Michael will report the results at our next meeting and we can proceed with any action on name changes.

11. Dick Fischer reported on seismic data on an event in Wyoming. Dick told us that seismic waves can indicate: earthquakes, implosions, or explosions. The event in Wyoming was measured at 5.4. Since the waveforms were downward, the data was consistent with an implosion. (Explosions are characterized by upward waves). This Wyoming event represented a roof fall in a soda ash mine. Two miners were trapped; one died.

Dick stated that in most earthquakes, it is safer to be underground than in a surface installation. He stated by examples that in the San Francisco quakes people in the BART underground are not injured in quakes.

12. Rich Collier reported that he has been working at the Nevada Test Site on Lightning Threat Discharges for underground facilities. He has been using radiofrequency methods to measure current paths in vents and air terminals.
13. Phil Yarnell reported on 2 patients (husband and wife) from Dillion, Colorado who were struck while on the telephone. Both worked at a motel. The woman worked at the switchboard and had headsets on when she experienced a "pop" in her ears. Since then she has had headaches. Her husband was on another phone. He experienced a burn in his back. He has complained of dizziness. An ENG is reported to be abnormal. Furthermore, a coin machine in the restaurant next door was melted during the lightning strike.

Phil commented that many of the post lightning strike patients have symptoms similar to the "whiplash syndrome."

14. The meeting ended with slide shows of lightning by Rich Kithil and Richard Keen.

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15. Next meeting: Friday April 14, 1995 at 11:30 am in Conference Room B at St. Anthony Hospital Central.

Respectfully submitted,



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