

Minutes April 8, 1994 Lightning Data Center St. Anthony Hosp.

Quote of the Month:

"Some guy asked if it was true that lightning never struck in the same place twice, and Steiny said yes, it was true. Then the guy asked why, and Steiny said because there was nothing there for lightning to strike the second time."

Attributed to Charles Proteus Steinmetz by Floyd Miller.

1. Meeting began at 11:30 am and adjourned at 1:14 pm.
2. Members present: Bergschneider, Breed, Cherington, S. Clark, Fischer, Keen, Kithil, Langford, Simmons, Yarnell.
3. I presented two packets of correspondence to our group that were sent in reponse to Dan Breed's letter to other groups around the nation and around the world. Both correspondants applauded our goals. One of them has been a long time friend and supporter of our efforts, the other is a new friend to most of us. They are:
  1. Chris Andrews of Australia sent a Fax reporting that he might be in Denver in late May on his way to the Chamonix meeting. We decided to change our usual meeting date next month so as to accommodate Chris's itinery. Hopefully, he will finally be able to visit us after years of letters, Faxes, and phone calls.
  2. Charles B. Moore, Professor of Atmospheric Physics, Emeritus at New Mexico Institue of Mining and Technology, sent us a large packet containing information on early streamer emitting air terminals, lightning protection canopies, and newspaper reports of a lightning death of an instructor who was the husband of a lightning researcher at New Mexico Tech. That tragedy was reported in the August 13, 1992 issue of the Albuquerque Journal.

Professor Moore wrote that the cloud-to-ground stroke killed Professor Pan was not recorded by LLP net. Dan Breed stated that the magnetic directional finder network was positive for about 80% of cloud-to-ground lightning strikes.

I also reported that Susan Knight will present to us all the cases she was able to find in the hospital outpatient records. One of these cases relates to a patient who was struck while inside his home. We now have several such patients.

I distributed reprints of an article recently published in the Journal of Emergency Medicine on "Childhood lightning injuries on the playing field." Phil Yarnell and I, along with others, co-authored that article.

4. Ken Langford read several pages from a book by Floyd Miller on Charles Steinmetz. Our quote of the month is from that book.
5. Kevin Bergschneider presented his up-to-date work on our logo and bookcover. We agreed that the logo should be of three

colors: the caduceus serpent will be gold; lightning will be silver or white; the ground black. We will spend \$50.00 from our grant fund to reimburse the graphic design artist for her help. Kevin will make about 25 to 50 cover sheets for our minutes-directory book. Colored stationary, etc. will be made in the near future.

6. Warren Simmons and Kevin Bergschneider discussed some recent legal cases pertaining to lightning fatalities on golf courses. One case in Tennessee was brought by the widow of a golfer who was killed on a state park golf course. The Tennessee Court of Appeals ruled that the State Park was negligent for several reasons including:
  1. Failure to post signs warning of lightning hazard.
  2. Failure to provide lightning proof shelters.
  3. No policy to clear the course during a thunderstorm.The Tennessee Supreme Court overruled the Court of Appeals. Their argument was that lightning was "an act of nature."
7. Rich Kithil commented that many "shelters" are not properly grounded. Often the conducting cable is bent at angles approaching 90° and the ground connection is faulty. If the resistance in the conductor is higher than a nearby human (water content = 70%) the situation might favor a side flash with resultant injury.

Rich recently returned from Ecuador where he helped install an early streamer air terminal for a brewery. The insurance company required that.

8. Dick Fischer distributed material pertaining to the tragic accident at Gross Reservoir Dam during its construction in August 1951. Nine men were killed when lightning struck. One of the survivors, Harry S. Artemis, wrote about the experience. He lives near Golden. Dick will invite him to join us at a future meeting.  
Dick also distributed a monograph that he wrote on "Blasting Incidents in Mining" that includes a section on lightning.
9. Richard Keen reported on data that he has been collecting on thunder days per year in Coal Creek Canyon region where he resides. He has been collecting this data for ten years. He measures the output of static electricity on an AM radio speaker. His data for the past 4 years are:

1990	--	97 days
1991	--	99 days
1992	--	101 days
1993	--	78 days.

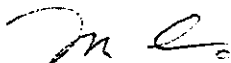
Rich commented that this low number for 1993 corresponds with Michael Boyson's data, reported at the last meeting, on low numbers of hospital cases of lightning injuries in 1993.
10. Steve Clark reported on his project collecting data on the relationship between lightning injuries and the presence or absence of rain. So far he has reviewed 114 cases. In 19 cases the reports indicated that it was raining at the time of the lightning strike. In 14 cases it was not raining. In those 14 cases, his data does yet differentiate between

lightning strikes on a clear blue day versus a rainy day.

11. Our next meeting will be at a NEW DAY -- Friday, May 20, 1994 at 11:30 am at Conference Room *C* at St. Anthony Central Hospital. I shall be absent on that day and Ken Langford will chair the meeting.

12. Enjoy the April showers and May flowers!

Respectfully submitted,



Michael Cherington, M.D.  
Chairman, LDC