

Minutes Jan. 14, 1994 Lightning Data Center, St. Anthony


Quote of the Month:

"Tesla...a man who taught us to use alternating current more effectively for driving electric motors is by that one achievement entitled to the enduring gratitude of mankind." ---Arthur Compton

1. Meeting began at 11:30 am and adjourned at 1:10 pm.
2. Members present: Bergschneider, Breed, D. Breggin D. Clark, S. Clark, Cherington, Eitel, Godby, Heitkamp, Kithil, Langford, Larsen, Margerum, Yarnell.
3. New members were introduced. They are Jim Godby and Gary Margerum.
4. I informed the group that Susan Knight continues to collect data on outpatient lightning visits. She was unable to attend today's meeting. She told me that she has found 15 charts on patients who visited hospital outpatient departments during the same period of time that was covered in the November article of the Bulletin of American Meteorological Society. She believes that there may be an additional 3 to 5 cases yet to be reviewed.
5. I submitted a logo for our group that was drawn by the husband of our secretary, Linda. All in the group enthusiastically endorsed it. It will be used for the first time on the soon to bound issues of our two years of minutes.
6. Jim Godby raised the question of whether we should study data on property damages due to lightning. He indicated that U.S. West has had transformers damaged by lightning. Rich Kithil mentioned that some data is collected by the National Association of Fire Chiefs. Dave Breggin stated that companies like U.S. West are "self-insured" and their damages are probably not in the databases of insurance companies. Todd Heitkamp and Ken Langford suggested that we collect any data that comes to us, but we should undertake a new study at this time. The LDC group agreed with that approach.
7. The group discussed the situation where two patients seen by Phil Yarnell were "struck by lightning" while inside their houses but near glass windows. Jim Godby and Dave Breggin asked questions regarding the environment and engineering features of the houses (e.g. ? metal frames around the windows? etc.) Much of this information is usually not found in medical records. Jim Godby suggested that the patient standing just inside his patio door, may have been standing "inside of a capacitor". Ron Larsen mentioned that very few homes in the United States have lightning rods. He reported that in western Europe most homes have lightning rods. He suggested that these patients may have been spared, if the houses had had lightning rods. I passed around an article written many years ago by a Denver physician, Dr. Hegner, where he describes two patients who were injured by lightning while being indoors.

8. Rich Kithil reported that in the state of Florida, legislation has been proposed that all firms with more than 10 employees will have to provide lightning protection.
9. Steve Clark reported that he is planning to study past cases of lightning strikes to determine if the victim was struck before, during, or after the rainfall. Dan Breed mentioned the weather data suggests that lightning usually occurs at the periphery of the rainfall.
10. Rich Collier reported that he will again return to Gainesville, Fl. and to Alabama to engage in the triggered lightning experiments sponsored by the Army. He again indicated that there may be the opportunity to "piggy back a medical experiment" at those sites. Ken Langford suggested one might design an experiment to study what happens on the inside of a glass window. In the past, we wondered about studying protective clothing and other materials on mannequins.
11. Todd Heitkamp reported that new brochures and slide sets will soon be available from the National Weather Service.
12. Dan Breed composed a letter which will be sent to those institutions and groups who share an interest in lightning phenomena. This letter, hopefully, will start a dialogue with these centers.
13. Kevin Bergschneider passed out a recent article on lightning detectors that was published in "Golfweek".
14. Ken Langford reported that he has recently been in contact with members of the Denver University High Altitude Lab at Mt. Evans. He also has been in contact with the Lightning Strike & Electric Shock Victims Intl. and brought some of their literature to the meeting.
15. I asked Rich Kithil to speak about his chart/drawing dealing with "the lightning discharge". Rich pointed out the ionized points of air terminals compete for the downward leader. The strongest and largest streamer is likely to capture the downward leader. Air terminals have given rates of ionization. The brush design tends to delay the formation of upward streamers because of competing points. The early streamer launches its streamer 50 microseconds ahead of the Franklin rod. This subject will be discussed further by John Eitel at our next meeting.
16. Next meeting: Friday, February 11, 1994 at 11:30am in Conference Room B at St. Anthony Central Hospital

Respectfully submitted,

  
Michael Cherington, M.D.  
Chairman, LDC