

Minutes October 14, 1994 Lightning Data Center St. Anthony Hosp.

Quote of the Month:

"I must search the stars for what is denied me on earth..."
Albert Einstein

1. Meeting began at 11:30 am and adjourned at 12:40 pm.
2. Members present: Cherington, Fischer, Hodge, Keen, Kithil, Larson, Yarnell.
3. I read a note from Ron Holle. Ron wrote to make a correction in the minutes of last month. In the September minutes, Ron was given as the source of information regarding lightning as a major cause damage claims to insurance companies. Ron states that lightning actually causes about five percent of property damage claims. He believes that fire damage claims may exceed 5%.
4. Rich Kithil informed us that there were a very high number of lightning deaths and injuries (264) in Florida this year. He had learned from Bill Jaferis, retired NASA Safety Officer, that there were 60 lightning patients seen at Tampa General Hospital this year.

According to news reports there were 2 lightning deaths in Tucson, AZ at Mt. Lemon. The people were struck while playing cards in a tent. One person survived.

Rich also raised the question of the LDC expanding our mission/charter by organizing as a 501-3c non profit corporation and to act then as a facilitator for lightning research projects by others. I passed Rich's memo on this subject to Debbi Clark so that Provenant St. Anthony Hospital Administration might consider this idea. At this time, we may not be in a position to undertake such a project. One major barrier could be the liability problems associated with such an undertaking. We can discuss this at future meetings after receiving a response from the Administration.

5. I distributed the following materials:
 - a. A brochure entitled: "Thunderstorms and Lightning" that Todd Heitkamp sent to me. This brochure contains beautiful photographs of lightning and a text which is concise and practical as a "preparedness guide." The sponsors are NOAA, Federal Emergency Management Agency, and the American Red Cross. I also distributed new professional/business cards that Todd has sent to me. His new phone number is 605-330-4247.
 - b. A recent short paper by Cherington, Yarnell, and Cherington published in the August issue of Muscle and Nerve entitled: "Lightning, Leyden Jar, and the Historic Beginnings of Electrophysiology."

I reported that I just today spoke with Ron Wojtasinski of Science and Technology Corporation, 400 West Center Blvd. Cape Canaveral FL 32920. Phone & Fax 407-799-9164.

He recently wrote a technical paper entitled: "Lightning Safety Evaluation for Personnel on Standard Launch Complex 41 and the Lightning Mitigation System."

We welcome Ron and shall add his name to our directory.

Finally, I reported that I had the opportunity of meeting with Dr. Phil Krider this week during his visit to NCAR in Boulder. Phil is chairing an international meeting to be held in 1996 in Osaku, Japan. Dr. Chris Andrews is chairing a committee to develop a new program, Keramedicine 96, which will be held in association with the Osaku meeting. More information will be provided in the months to come.

- 6. Phil Yarnell reported the details of three patients.
 - a. He received by mail the medical records of a patient who developed symptoms (muscle spasms, numbness, loss of sensation of the upper limbs after being treated with "an acupuncture machine" that delivered electrical shocks to the thoracic spine region. The machine is a battery operated piece of equipment. A discussion that followed included the observation by Dick Fischer that the static electricity that occurs when one walks across a rug may reach several thousands volts. The duration of the discharge when one touches a door knob is very short.
 - b. Phil saw a 16 year old boy who suffered a direct strike to the head. He was standing at a construction site near a front end loader. His father who was nearby saw "lightning move upward" from his son's head. CPR was administered immediately. The patient suffered burns to his scalp and thorax. His tympanic membrane was ruptured. His baseball cap was torn in the region of the scalp burn. The patient has made a nearly total recovery.
 - c. A 50 year old man was struck by a "bolt out of the blue" in Vail Colorado. His son did notice from Vail Mountain that there were clouds on the other side of the mountain. The patient suffered hypoxic encephalopathy secondary to cardiac arrest. His recovery has been limited to date. His bicycle helmet was damaged by the lightning direct strike. George Hodge pointed out that the "V" pattern of damage to the helmet is characteristic of lightning strike. The material burns itself up from the base.

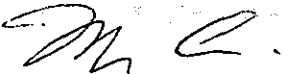
The accident occurred at 11:00 am MDT. Richard Keen stated that the is time of day when lightning usually begins. Lightning seldom begins earlier in the morning.
- 7. Richard Keen told us that the American Meteorological Society will be meeting at NCAR on October 20, 1994 at 6:30 pm. He also reported that there have been 92 Thunderstorm Days this year by measurements from the Coal Creek Canyon Observatory. Rich Kithil reported that Denver usually has 50 thunderstorm days each year. The highest number usually occurs southwest of Castle Rock.
- 8. Dick Fischer distributed a report of a fatal lightning strike to a strip miner in Clearfield County, PA. on July 7, 1994.
- 9. George Hodge told us that he will bring a "Jacob's ladder", neon transformer to our next meeting. He also reported that the coroner's office in El Paso County has photographic

material of lightning injuries.

10. Rich Kithil suggested we undertake a field trip to Colorado Springs to visit the Nicola Tesla Museum. He called the museum and learned that they have a special tour on Saturday afternoons. The group decided that we plan a Saturday trip to the Museum on November 12, one day after our next LDC meeting. At that meeting we can plan our journey.
11. Our next meeting will be held on Friday, November 11, 1994 in Conference Room B at St. Anthony Hospital Central.

Happy Halloween!

Respectfully submitted,



Michael Cherington, MD
Chairman, LDC