

**LIGHTNING DATA CENTER
MINUTES
OCTOBER 10, 2008
ST. ANTHONY CENTRAL HOSPITAL, DENVER, CO
www.stanthonyldc.org**

Monthly Quote: "A recent Carnegie-Mellon study showed that 33% of U.S. businesses are affected by lightning – and that more businesses are affected by lightning than by floods, fires, explosions, hurricanes, earthquakes, and violence." From NLSI website at: http://lightningsafety.com/nlsi_lls/impact-on-business.html

1. Meeting began at 11:50 AM and adjourned at 1:35 PM.
2. Members present: Cherington (Michael and Nancy), Langford, Gift, Cui-Gift, Keen, Clark, Stewart, Elder, Yarnell, Wells, Kithil, Collier, Elwood-Digel, Wallace, and Nibbe. Steve Clark moderated the meeting.
3. The website redesign is underway. The executive committee (EC) met with St. Anthony's webmaster and a member of St. Anthony's marketing department prior to the LDC meeting. Papers were submitted to the EC for the three main areas the LDC is involved in: meteorology, engineering, and medical. The St. Anthony's people worked closely with Ken Langford in setting up a framework for the website into which the papers were loaded. The EC will test and evaluate the website and offer ideas for improvements. As usual, Stay Tuned!
4. At the meeting, Ken Langford presented a hypothesis to explain the formation of Lichtenberg figures on people hit by lightning. Essentially, he thinks the patterns are a form of localized sunburn caused by UV emissions from the flashover on the skin. An outline that Ken wrote is attached to these minutes as a document entitled "Ken.pdf". Ken also brought in a newspaper article from the Hartford Courier (Hartford, CT) from Tuesday, June 10, 2008. A man was struck by lightning while standing next to a pillar underneath a pavilion. Rich Kithil was quoted in the article.
5. Phil Yarnell brought in an advertisement for a lightning detector that sells for \$80 each and less for a group discount. Phil asked Rich Kithil for his advise. Per Rich, these devices detect the burst of radio frequency energy that emanates from a lightning strike. These are useful in the open field, away from urban areas, which have numerous sources of electromagnetic energy that can cause false alarms. Rich said the small units claim to tell you how far away the lightning strike was from the receiver, but those claims fail because the unit cannot tell the difference between [10kV@10](#) miles vs. [20kV@20](#) miles, as the ratio is still the same for both strikes. As such, Rich did say these devices are useful as a "first alert", which would allow persons in the area to modify their activities accordingly.

6. Our featured speaker was Rich Kithil, founder of the National Lightning Safety Institute (NLSI). NLSI was founded back in 1993, with the idea of teaching others about the fundamentals of lightning safety. When Rich started NLSI, he knew very little about lightning safety. So how did he get his expertise? By studying thoroughly the lightning codes promulgated by various agencies and organizations. Following that, he began offering 2-day classes entitled "Lightning Protection for Engineers". NLSI has taught an estimated 450 trainees in the accredited course. NLSI also performs facility site assessments for places such as nuclear plants, military bases, mining sites, petroleum facilities, hotels, and historical sites. Rich has also been called upon as an expert witness in court cases. NLSI's work has taken Rich all over the world: USA, Japan, Korea, South Africa, Kenya, Peru, France, Argentina, etc. One thing Rich did mention is the formation of other groups in other countries similar to NLSI. The interest is particularly strong in Africa. In fact, there is an East African equivalent to NLSI that has been around longer than NLSI! Another NLSI equivalent is the South Asian Institute of Lightning Safety. During his presentation, Rich showed many examples of lightning protection systems used in facilities.

Some Lightning Trivia from Rich

- There are approximately 100 lightning codes out there in use, some of which overlap and conflict with each other.
- There are roughly 75 to 100 lightning strikes per second on earth.
- Martin Uman has said there will be some 2 to 3 times more lightning if global warming forecasts hold true.

Thank you, Rich, for a most informative talk. For further information, NLSI's website is: www.lightningsafety.com.

7. These minutes do not represent official positions of LDC or its members. They simply reflect the comments made at the meeting.
8. Next meeting: Friday, November 14, 2008 at 11:45 AM in the Main Auditorium of St. Anthony Central Hospital. Subject/Speaker: TBA.

Respectfully Submitted,

Steven E. Clark, Consulting Meteorologist