

"First let me talk with this philosopher - what is the cause of thunder?"

- William Shakespeare, "King Lear"

1. Meeting began at 11:30 am and adjourned at 1:30 pm.
2. Members present: Breed, Clark, Hodge, Keen, Langford, Rossi, Simmons, Swanson, Toler, Wachtel, Yarnell
3. Richard Keen was acting chair person in Michael Cherington's absentia, and we look forward to his return in March.
4. With the minutes of the January 9, 1998 LDC meeting, a draft "Mission Statement, Strategic Directions, Vision Statement, and LDC Profile" was presented for approval by corresponding members. The following members, who were not present today, responded: Berger, Cherington, Foley, Holle, Lammertse, ten Duis. All six voted to approve the draft statement as presented.
5. Approval of the draft statement was put to a vote of the members present. All present were in favor of adopting the draft statement as presented. With the unanimous vote for approval by corresponding and attending members, the draft "Mission Statement, Strategic Directions, Vision Statement, and LDC Profile" has been adopted by the LDC.
6. Phil Yarnell continued his discussion (see the January 9, 1998 minutes) of the similarities between symptoms of Chronic fatigue syndrome, Post-traumatic stress syndrome (among Gulf and Vietnam War veterans), mild head injuries, and electrical shock. Among these common symptoms are significant impairments in learning and memory, and tinnitus. Phil reported that Mary Ann Cooper was in Denver the previous week, and he discussed with her the possibilities of common neurological pathways for the different clinical causes of these common symptoms. Phil concluded that the following questions need to be addressed:
 - The symptoms need to be better defined;
 - What part of the brain and/or nervous system do the symptoms come from; and
 - What else - such as drugs - act on that part of the brain and/or nervous system.
7. Howard Wachtel reported on a study from Finland that correlated Alzheimer's disease with EMF exposure among sewing workers, and that this might also imply a correlation with ALS (Lou Gehrig's disease). Howard speculated on whether electrical shock could have the same results as prolonged low-level EMF exposure. He also discussed the possibility of using magnetic pulses from an external device to stop the heart during surgery, rather than using direct electrical stimulation of nerves, which would require additional surgery.

8. Warren Simmons noted that it was still off-season for both lightning and golfing in Colorado.

9. Dan Breed will be heading to Coahuila, Mexico, for a NCAR cloud-seeding experiment this summer. While not directly part of his research, Dan speculated on whether cloud seeding could, by increasing the number of snow pellets in a cloud, result in an increase of cloud electrification and lightning. He noted that snow pellets (also known as "graupel" or "soft hail"), rather than common snow flakes, are usually observed in conjunction with winter lightning.

10. George Hodge alerted us to upcoming events - a "Lightning 101" presentation by Global Atmospheric, Inc., and a slide show about Nikolai Tesla - both on February 19.

11. Carl Swanson reported on his meeting with Phil Krider, who provided some insight into Carl's video of a double grounded lightning strike (shown after the meeting). Phil said that only 1 percent of ground strikes have double ground contacts, and identified Carl's video as a probably positive strike. Carl has been giving lectures about lightning and lightning safety at the Denver Museum of Natural History, and his next lecture will be Wednesday, June 3, 7 to 9 pm. He has been collecting anecdotal ball lightning reports from his audiences.

12. Ken Langford, inspired by his successful capture of a lightning streamer on film (he has shown his image at previous LDC meetings), has compiled a list of known photos of streamers. At the end of the meeting, Ken showed Dean Cosgrove's video of bead lightning near Lawton, OK, and a video by Shane Adams of suspected ball lightning, also in Oklahoma. The possible ball lightning lasted only 6 frames, or about one-fifth of a second.

13. Richard Keen showed a video of his interview (with TV weatherman Ed Greene) about El Nino, which was aired on Channel 6 in October, 1997. He speculated that 1998 could be an active lightning season in Colorado, due to effects of El Nino and increasing sunspot activity, both of which appear to correlate with increased numbers of thunderstorms at Coal Creek Canyon.

14. Disclaimer....

15. Our next meeting....

Respectfully submitted,

Richard A. Keen, Ph.D.

Acting Chairman, Scientific Committee of LDC