

LIGHTNING DATA CENTER MINUTES

February 12, 2021
ST. ANTHONY HOSPITAL
www.lightningdatacenter.org

Monthly Quote: “If you ever want your soul to dance in the clouds, you will at some point have to juggle lightning and taste the thunder.” - Christopher Poindexter, Remington Typewriter Poetry. Link: http://www.notable-quotes.com/l/lightning_quotes.html

1. Members Present: Clark, Langford, Stemple, Wachtel, Yarnell, Terry, Crow, and Swanson. Clark moderated. Meeting began at 11:45 AM and ended at 12:40 PM.
2. **VERY IMPORTANT – PLEASE READ!** As of February 2021, we will continue to hold meetings via Zoom only through at least June. The number of COVID cases continues to fall since last month and the positivity rate is also decreasing, but the concern now is the slow rate of vaccination due to problems with distribution of the vaccine and also due to new strains of the virus being found. In addition, the hospital is using all of the conference rooms to vaccinate people resulting in meetings being displaced. I will keep you posted as things develop.
3. The LDC is accepting donations, either as cash or check. If you donate via check, please make your check payable to Steve Clark at 755 S. Clinton Street, #2A; Denver, CO 80247. He will cash the check and keep the cash holdings specifically for the LDC. When the LDC incurs expenses, Steve will pay for services rendered through his bank account using the cash from LDC’s cash holdings. A log will be maintained detailing the inflow and outflow of monies. At the present, the LDC has \$582.00 in cash, thanks to a \$100 donation from the father of a lady struck by lightning while outdoors in New Mexico..
4. Rick O’Keefe with the Lightning Protection Group sent notice that scientists on board the International Space Station have documented the occurrence of a blue jet from the top of a thunderstorm. Cameras and photometers on board captured the image in February 2019 from a storm in the Pacific Ocean near the island of Nauru. The jet was initiated by a 10-microsecond flash of blue light which lit up some 16 km above the cloud top. From that, a blue jet shot up into the stratosphere approximately 52 km. It was illuminated for several milliseconds.
5. Phil Yarnell said the Lightning Strike & Electric Shock Survivors International (LSESSI) group will be holding a virtual conference via Zoom on February 27 and 28. Those interested in attending are encouraged to visit their website, www.lightning-strike.org, for details on how to sign up and attend. Dr. Yarnell will give a presentation at the conference titled “A Clinical Neurologist Approach to a Patient’s Problems: Specific Localization or Diffuse”.
6. Steve Clark spoke with Mike Utley prior to our meeting. It appears he is seeking to reduce the financial burden of maintaining his website, which says runs between \$25 and \$50 per month. Clark said if LDC wants to do that, then LDC may have to change to a dues-paying organization. Members agreed further thought and discussion are needed.

7. We are still working with the graphic artist to get the lightning safety brochure ready to print. We expect to have the brochure printed before the March meeting.
8. Ron Holle gave a presentation titled “Lightning Occurrence and Casualties in Uganda” for the 101st Annual Meeting of the American Meteorological Society, 10th Conference on the Meteorological Applications of Lightning Data, which is on YouTube. Here are some of the more interesting points. There is a nighttime maximum over Lake Victoria, in the southeast part of the country. There are two peaks during the year, one around March and the other around October, which correspond to the crossing of the Equatorial Trough over the country. Ron said the reporting of casualties is significantly underreported, due partly to a lack of communications and due to events involving small numbers of people not being reported. Reported lightning casualties from 2007-2020 showed the ratio of injuries to deaths was 3.4 injuries reported for every death, versus roughly 10:1 here in the US. By far, the greatest number of casualties occur in schools for people in the age range of 10-19 years. Ugandan schools have three sessions per year. Oddly, the casualty rate at schools is highest around June and July, at a time when the lightning frequency in the country is at a relative minimum. Ron continued his presentation with a discussion of lightning safety in developed countries versus developing countries and the reasons why there are increasing reports of lightning casualties in developing countries. Ron closed with some online lightning resources available for further research.

At the same conference, Walt Lyons gave a keynote talk on 50 years of lightning investigation.

9. LDC welcomes your medical questions. Please send them via e-mail to Steve Clark at sclarktoto@gmail.com. Your medical questions will be forwarded to Dr. Phil Yarnell for his review and will usually be taken up for discussion in the next month’s meeting. Please be advised any questions posed are for the general consideration by the group and do not constitute a formal medical opinion. If a formal evaluation is requested, arrangements can be made directly with Dr. Yarnell. If you have a medical emergency, please call 911 or your local EMS.
10. Questions, comments, error notifications, and critiques of these minutes are welcome. Please forward those to Steve Clark. Please keep your communications professional and respectful. Communications will be forwarded to the appropriate author(s) of the minutes and addressed accordingly.
11. LDC Disclaimer: These minutes do not represent official positions of the LDC or its members. They simply reflect the comments made at the meeting. Furthermore, the LDC does not implicitly or explicitly recommend or endorse any product or service. Any product or service presented in these minutes is done so for purposes of discussion and analysis. The merit (or lack thereof) is open for the consideration and review by the entire membership.
12. Next meeting: Zoom meeting. Friday, March 12, 2021, from 11:45 AM to 1:00 PM MDT.

Respectfully Submitted,
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Lightning Links

This is a monthly listing of periodicals, websites, and videos about lightning and allied areas from a variety of sources. A headline or description is listed, followed by the link. Please note that some of the links are perishable, which means you'll need to go to the source for the information.

Blue jet articles

Neubert, T., O. Chanrion, M. Heumesser, K. Dimitriadou, L. Husbjerg, L Rasmussen, N. Ostgaard and V. Reglero, 2021: Observation of the Onset of a Blue Jet into the Stratosphere. *Nature*. January 20, 2021. Link: <https://www.nature.com/articles/s41586-020-03122-6>

Temming, M., 2021: Space Station Detectors Found the Source of Weird 'Blue Jet' Lightning. *Science News*, January 21, 2021. Link: <https://www.sciencenews.org/article/space-station-detectors-found-source-weird-blue-jet-lightning>

Ron Holle's YouTube Uganda Lightning Presentation

Uganda Lightning and Casualties, 101st Annual Meeting of the American Meteorological Society, 10th Conference on the Meteorological Applications of Lightning Data, Ron Holle.
Link: https://www.youtube.com/watch?v=Yw18-MITu_A&feature=youtu.be

Walt Lyons Video

"Are the Green Ghosts Real?": 50 Years Investigating the "Big Spark" Looking Back...and Looking Forward. 101st Annual Meeting of the American Meteorological Society, 10th Conference on the Meteorological Applications of Lightning Data. Walt Lyons.
Link: <https://vimeo.com/500250316>