

**LIGHTNING DATA CENTER MINUTES**  
**MAY 13, 2011**  
**ST. ANTHONY CENTRAL HOSPITAL, DENVER, CO**

Monthly Quote: “this thing costs money, we’re not supposed to use it too much. Don’t turn it on unless you think there’s something coming.’ Well, of course, we didn’t know if something was coming or not until we turned the radar on.” Ron Holle describing the mind-set of the usage of the old WWII weather radars. Weatherwise, May/June 2011

1. Meeting began at 11:45 PM and adjourned at 1:05 PM.
2. Members present: Clark, Yarnell, Elder, Claus, Gift, Nibbe, Wells, Stewart, Wachtel, Collier, and Foley. Clark moderated the meeting.
3. The June LDC meeting will be the last meeting held at St. Anthony’s Central. There will not be a regular meeting in July. Instead, on Friday, July 29, there will be a tour of Coors Field (details below), with some of it being for baseball fans and some of it being devoted to lightning safety and protection at the ballpark. Please see the announcement in the back of these minutes for details. We will meet for the first time at the new facility in Conference Room E in August.
4. Phil presented the case of a flagman who was struck by lightning during a heavy rainstorm. The patient stated the lightning hit the flagpole, went through his left index finger and then went down through his legs. He stumbled back about five feet and saw white spots. There were burns on his arms and legs. He complains of pain and tingling in his left arm. During his examination, he got very emotional and cried. The patient states he is cold-insensitive. He can sit in a room at 62 Deg. F and not feel any discomfort, whereas before, he liked the temperature to be around 73 Deg. F. He doesn’t sweat and his body aches. Phil does not know the pathophysiology of this individual.
5. Howard Wachtel will be presenting a paper at a biomagnetics conference in Halifax, Nova Scotia during the week of June 11-16, 2011. The basic premise is TMS is analogous to a concussion due to the high current densities employed.
6. The LDC is blessed by the membership of many esteemed individuals, one of whom is Karen Wells. She received the 2011 Marla Graber Award from the Colorado Council of Medical Librarians (CCML). Established in 2002, The Graber Award recognizes the career of a CCML member who has made outstanding contributions to CCML and to health sciences librarianship. Karen has been a CCML member since 1982. Mention of the award was made by the National Network of Libraries of Medicine, MidContinental Region, which serves six states: CO, KS, MO, NE, UT, and WY. Hopefully, news of this award was national in coverage. Congratulations, Karen!!

7. One of our members has been struck by lightning five times, the most recent episode occurring last March while inside their home on a cordless telephone. The lightning struck a power pole and came into the house, shattering the heel of her shoe and burning a small hole on the back of the shoe. The member reports burning of the arms and sleep disturbance. For a while, there was a loss of appetite. According to the member's recall, there was only one flash of lightning and no thunder was heard before or after the strike. Three of the five strikes were associated with telephones. Clark thought there might be a common phone-related safety issue with these strikes. It turns out the phone-related strikes were different. One was a corded phone; another was a cellphone through an open car window, and the third was this cordless phone inside the home. The member did ask if, once a person has been hit by lightning, was there was something about that person that makes that person more likely to be hit again. Also, has this been researched? While those questions were not addressed in this meeting, the issue of "lightning strike proneness" has been discussed, and thus far, we have been unable to identify any biological factors that would suggest a greater susceptibility to being hit by lightning.
8. Greg told us of a recent incident where an Airbus A380 "double-decker" plane was struck by lightning during a landing approach into London's Heathrow Airport. There were no injuries or reports of damage to the airplane. A YouTube video can be found here: <http://www.youtube.com/watch?v=1-VUtJtj-U8>
9. The LDC's Ron Holle was featured in an interview in the May/June 2001 issue of Weatherwise magazine. He discusses the evolution of his career as a lightning researcher and as a lightning injury expert. See the link below.
10. Mike Foley read on a Yahoo lightning discussion group about a lightning-struck patient who saw a neurologist and was told electrocution uses up the vitamin B12 stored in the liver. Phil disagrees, stating vitamin B12 deficiency can be identified by lab tests and it can lead to neuropathy.
11. Foley also told us the IEEE Power Engineering Society's Subcommittee on Lightning Protection has endorsed early-streamer systems for "single-dome" protection against lightning. Mike went on to say a well-known, highly respected lightning researcher is challenging the manner in which this endorsement came about, due to commercial interests interfering with the process.
12. Some of you may have read of the lightning strike last April in Portage, MI. Seven people were injured during a lightning strike on a soccer field. Clark presented a case study of the strike. Two comments were made, one of which is important regarding lightning safety.
  - A man who was at a soccer practice said: "We could see the storm. It looked like it was going to go the other way and all of a sudden I see folks on ground."

- Another man who was running a weather net at the time said two of his storm spotters reported the lightning as “large cloud-to-ground strikes, and both referred to it as ‘bolts out of the blue’”.

Clark examined the radar and satellite images. In sequential radar images, the cell that produced the lightning was moving generally east-northeast. The satellite image shows the anvil blowing to the north-northeast. Clark thinks the man at the soccer practice was fooled by the direction of the anvil, thinking the storm was moving in the direction of the anvil, and therefore thought the storm would miss them. The main updraft was actually more towards the east-northeast, as indicated by radar. Finally, the satellite image shows what appears to be clear sky to the south of the strike area, which most likely explains the “bolts out of the blue” statement. MORAL: Just because the anvil is blowing “off to the side” and not at you doesn’t mean the storm is not approaching you. The main updraft of the storm does not always travel in the same direction the anvil is pointed.

13. These minutes do not represent official positions of LDC or its members. They simply reflect the comments made at the meeting.

14. Next meeting: Friday, June 10, 2011 at 11:45 AM in Main Auditorium at St. Anthony Central Hospital. Subject: TBA.

Respectfully Submitted,

Steven E. Clark, Consulting Meteorologist

## **In Case You Missed It...Lightning in the News**

**This is a monthly listing of news and videos about lightning and allied areas as reported in the media. A headline is listed, followed by a link to the article. Please note that some of the links are perishable, which means you'll need to go to the source for the article. Enjoy!**

On the Job: Ron Holle. Weatherwise, May/June 2011.

<http://www.weatherwise.org/Archives/Back%20Issues/2011/May-June%202011/on-the-job-abstract.html>

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Karen Wells Receives the 2011 Marla Graber Award

<http://councilquotes.wordpress.com/category/ccml-stars/>

[http://nmlm.gov/mcr/news\\_blog/2011/04/karen-wells-recipeint-of-2011-marla-graber-award/](http://nmlm.gov/mcr/news_blog/2011/04/karen-wells-recipeint-of-2011-marla-graber-award/)

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Lightning Strike in Portage, Michigan

[http://www.mlive.com/news/kalamazoo/index.ssf/2011/04/lightning\\_strike\\_in\\_portage\\_in.html](http://www.mlive.com/news/kalamazoo/index.ssf/2011/04/lightning_strike_in_portage_in.html)

[http://www.mlive.com/news/kalamazoo/index.ssf/2011/04/lightning-stricken\\_victims\\_at.html](http://www.mlive.com/news/kalamazoo/index.ssf/2011/04/lightning-stricken_victims_at.html)

## **IMPORTANT INFORMATION REGARDING YOUR TOUR!**

### **TICKET POLICY**

- Any changes to your tour must be made **at least one week** prior to your tour including cancellations or time changes. **Any cancellations or tour time changes within this time will result in a forfeiture of your deposit. If your tour was booked within one week of your tour date, your reservation is final and cannot be canceled or changed.**
- All private tours are designated for groups of 25 or more; therefore, your group is responsible for paying for at least 25 people. If your group is going to be less than 25 people, you must either pay for the minimum of 25, or reschedule your group on a public tour. Cost for public tour tickets is \$7 for adults, \$6 for seniors (55+) and \$5 for children (3-12). In addition, public tours are at different times than our private/group tours. If you need to switch to a public tour, you will need to move your tour time as well. Please call for available public tour times.
- We ask that the majority of your tour tickets be purchased in advance. Our ticket office cannot print any tickets until payment is received. You may pay for some of your tickets on the day of your tour, but you must arrive early to do this as paying for a lot of tickets at this time could delay the start of your tour and require us to shorten it. The fewer tickets you need to buy on the day of your tour, the better. There are no refunds once tour tickets have been purchased which is why we recommend you purchase fewer tickets than you think you will need to accommodate any no-shows on the day of your tour.  
**PLEASE RETURN THE REGISTRATION FORM TO LET US KNOW HOW YOU WILL BE HANDLING PAYMENT FOR YOUR TOUR, REGARDLESS OF WHETHER OR NOT YOU ARE PAYING IN ADVANCE OR ON THE DAY OF YOUR TOUR.**
- All guests three years of age and older must have a tour ticket to go on a tour. We do not require a minimum number of chaperones for kid's tours, but we do ask that the adults in your group be responsible for supervising the children.

### **SECURITY**

- Due to heightened security in all public facilities, all bags brought into Coors Field for a tour will be subject to search. This search will include purses, bags, backpacks and fanny packs. To avoid any delays in starting your tour, we highly recommend that you and the members of your group not bring any bags on your tour.

## TOUR INFORMATION

- The tour entrance and meeting spot is at Gate D of Coors Field, located at the intersection of 20<sup>th</sup> and Blake Streets. Your tickets should be picked up at the Coors Field ticket windows located between Gates C & D.
- For security reasons, we are not permitted to exit any members of your group early.
- Our tours begin on time. Please plan on arriving at least 10-15 minutes early. If your group arrives late, your tour will be shortened to fit in the original time slot. For security reasons, any guests arriving 15 minutes after the start of your tour will **NOT** be able to join your group.
- This is an indoor and outdoor walking tour of Coors Field. Please wear comfortable shoes and clothing appropriate for the weather on the day of your tour. Our tours operate rain or shine. In the event of severe weather on the day of your tour, please call 303-312-2130. If your tour has been canceled, the message on this line will be changed to let you know.
- No eating, drinking, or smoking is allowed. We also ask that guests not use cell phones during their tour. Water in plastic bottles is permitted. Cameras are also permitted. For a complete list of restricted items, please go to [http://colorado.rockies.mlb.com/col/ballpark/ballpark\\_guide.jsp#r](http://colorado.rockies.mlb.com/col/ballpark/ballpark_guide.jsp#r).
- There is one restroom stop approximately 20 minutes into your tour. This is the only stop available as restrooms in the ballpark are locked when the Rockies are not playing.

## COORS FIELD TOUR PARKING

*Please note that Coors Field's Main Parking Lot A is no longer available for tour guest parking. Due to heightened security, this lot is now open only during games.*

**All Tours begin at Gate D at the intersection of 20<sup>th</sup> & Blake Streets.**

**#1 - The RTD Lot** – located at 22<sup>nd</sup>/Park Avenue and Wazee. Payment for these parking spaces is made to a moneybox with numbered slots for corresponding numbered parking spaces. On Rockies evening home game days, all cars must be moved from this lot by 3:00pm or they will be towed. Cost is \$3 per vehicle.

**#2 - Meters on 21<sup>st</sup> Street between Blake and Market Streets** - These are two-hour meters. On the day of a Rockies evening home game, the meters may have “no-parking” bags covering them. You may park at a bagged meter (on an evening game day only) as long as your car is moved by 3:00pm. If you receive a parking ticket in error, please call 303-312-2130. When not bagged, these meters cost \$.25 for 75 minutes.

**#3 - Meters on Market Street between 20<sup>th</sup> and 21<sup>st</sup> Streets** - These are two-hour meters. The meters cost \$.25 for 15 minutes.

**#4 - Meters on Blake Street** – These meters are located right next to the ballpark but are only 60-minute meters (tours last 75+ minutes). If your bus driver will be staying with your bus, they may park on Blake Street, but we ask that they not block access to our ticket windows. These meters cost \$.25 for 15 minutes.

Map of Coors Field. The tour starts at 11 AM at Gate D, which is located at the lower-left corner of the map, behind Home Plate, at the corner of 20<sup>th</sup> Street & Blake.

