

LIGHTNING DATA CENTER MINUTES

May 13, 2016

ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO

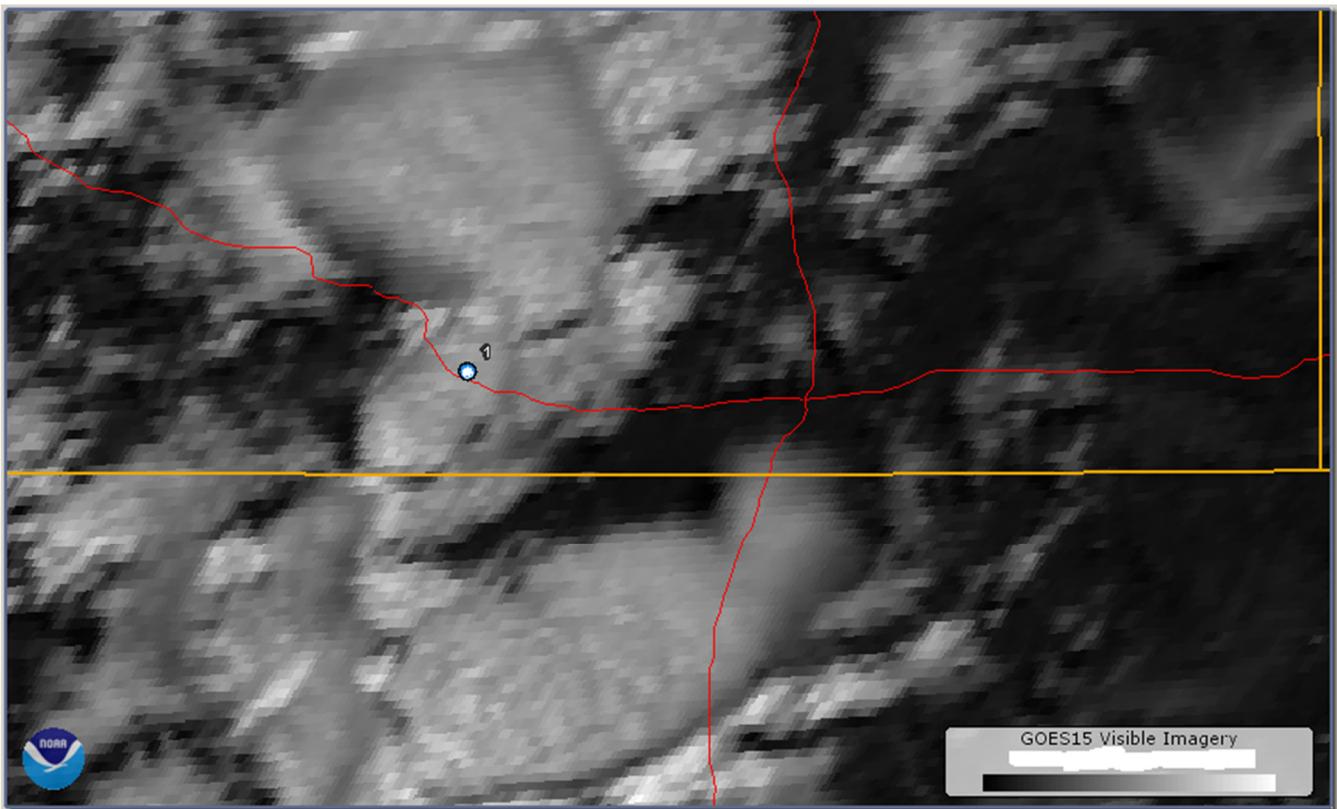
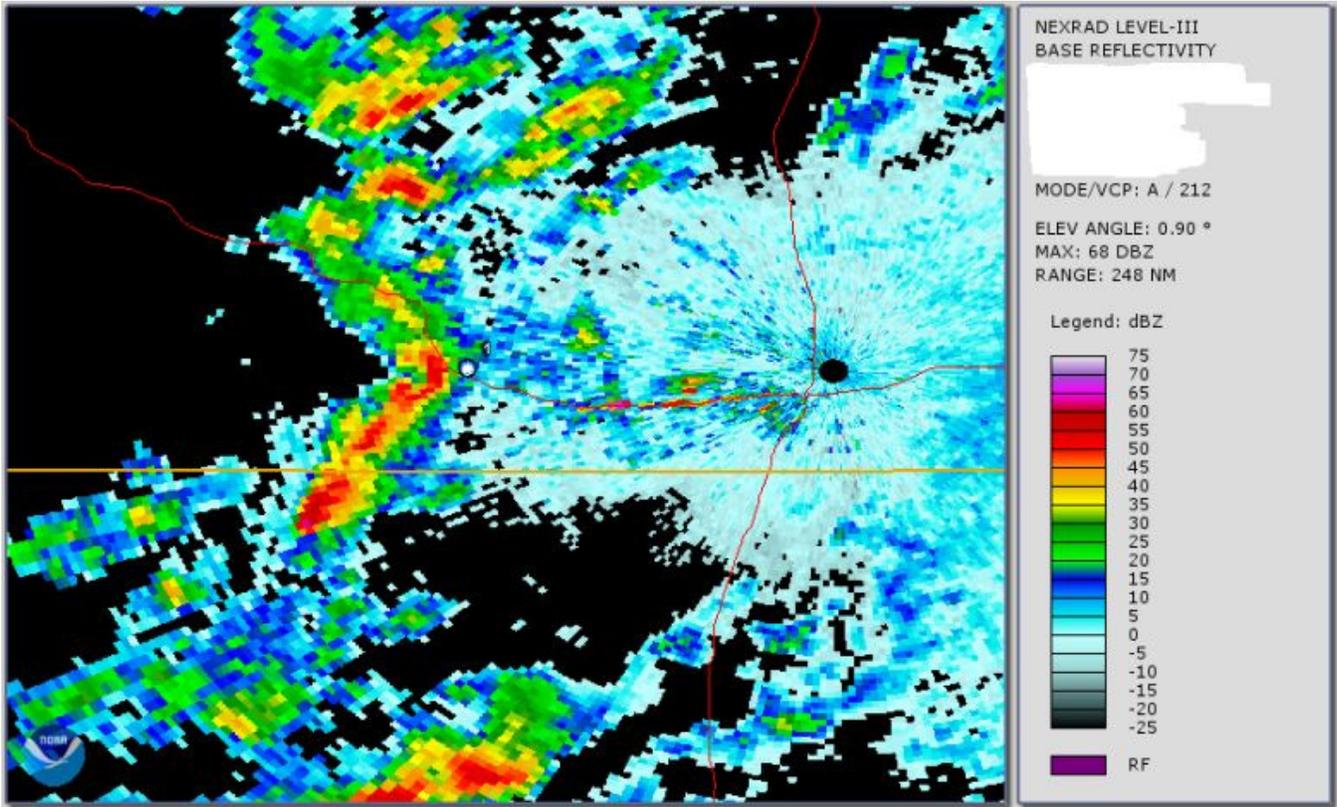
“They don’t remember anything,” LaSalle Said. ‘They were underneath an overhang and the bolt just came down.’” Michael LaSalle, Assistant Chief of Boca Raton Fire Rescue Services, on three firefighters struck by lightning while fighting a lightning-caused fire. Source: <http://weatherplus.blog.palmbeachpost.com/2016/03/29/three-firefighters-injured-by-lightning-strike-in-boca-raton/>

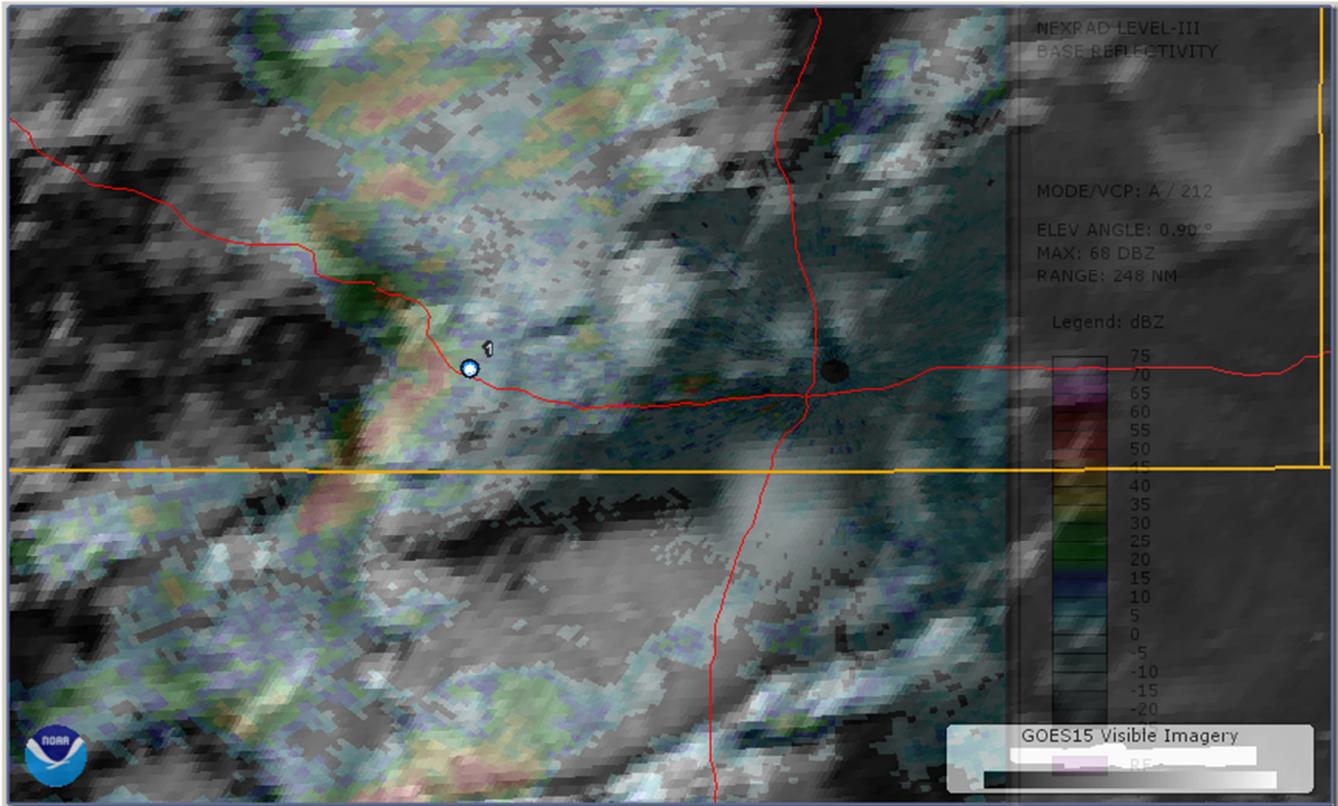
1. Meeting began at 12:00 PM and adjourned at 1:05 PM. Members Present: Clark, Yarnell, Wachtel (Howard & Claire), Patrick, Gift, Cui-Gift, Elder, Richer & Kenney. Clark moderated.
2. We welcomed Andy Kinney, a journalist with The Denverite, a newly formed e-newspaper here in the Denver area. Mr. Kinney had read about the LDC in the e-zine 5280 and wanted to attend one of our meetings based on what he read. The Denverite expects to publish its inaugural edition later this spring. We expect to see him at a future meeting.
3. The Lightning Data Center had its “Point/Counterpoint” article on lightning and indoor pool safety published in the May 2016 edition of the e-magazine *Parks and Recreation*. Thank you to Carl Swanson, Ken Langford and Greg Stewart for their efforts in getting that done. Here's the link to the article: <http://ezine.parksandrecreation.org/HTML5/NRPA-Parks-Recreation-Magazine-May-2016>
To access the article, simply copy and paste the link into your web browser search window and hit enter. The e-zine should come up. Once you have the e-zine up, the easiest way to get to the article is to turn the pages three times to the second “Contents” page using the little arrow on the right-hand edge of the right panel of the e-zine. On the left side of that page, you will see a section called “Operations”. Click on the blue link underneath “Operations” or on the word “Operations” and that will take you to the article. NOTE: Clicking once might magnify the page. If that happens, that’s ok. Simply click again as directed above and you will see the article.
4. Abstracts from the 2015 International Conference on Lightning & Static Electricity (ICOLSE) are available via this link: <http://digital-library.theiet.org/content/conferences/2015/0011>.
5. Dr. Phil Yarnell presented a case of a patient who suffered burns when his oil rig was struck by lightning. Several years after the event, he is permanently disabled with visual field constriction and tinnitus. He also has emotional and cognitive problems. After the strike, he developed severe headaches that have required treatment. Imaging studies have been nondiagnostic. He tried to return to work where he had been on a successful career track, but could not function. He is being treated with cognitive processing therapy and eye movement therapy psychologically as a severe posttraumatic stress syndrome patient. His complaints and course are typical of shock survivors with persistent life-changing symptoms and they present a very challenging medical treatment problem.

6. Steve Clark presented lightning strike data obtained from CoreLogic, satellite images and radar images for three individuals who shared their experiences at previous LDC meetings. Case #1 was featured in the November 2014 minutes. Case #2 was also in the November 2014 minutes and in the January 2015 minutes. Case #3 was profiled in the minutes for August and September 2015. Shown below for each case is a radar image, a satellite image and a composite satellite/radar image, closest to the time of the strike, along with a short commentary for each case. NOTE: Times, distances and coordinates are approximate.
7. Questions, comments, notification of errors, and critiques of these minutes are welcome. Please forward those to Steve Clark at: sclarktoto@gmail.com. Please keep your communications professional and respectful. Communications will be forwarded to the appropriate author(s) of the minutes and addressed accordingly.
8. 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.
9. Next meeting: Friday, June 10, 2016 at 11:45 AM at St. Anthony Hospital West in the Pinecone Room.

Respectfully Submitted,
Steven E. Clark, Consulting Meteorologist

Case 1



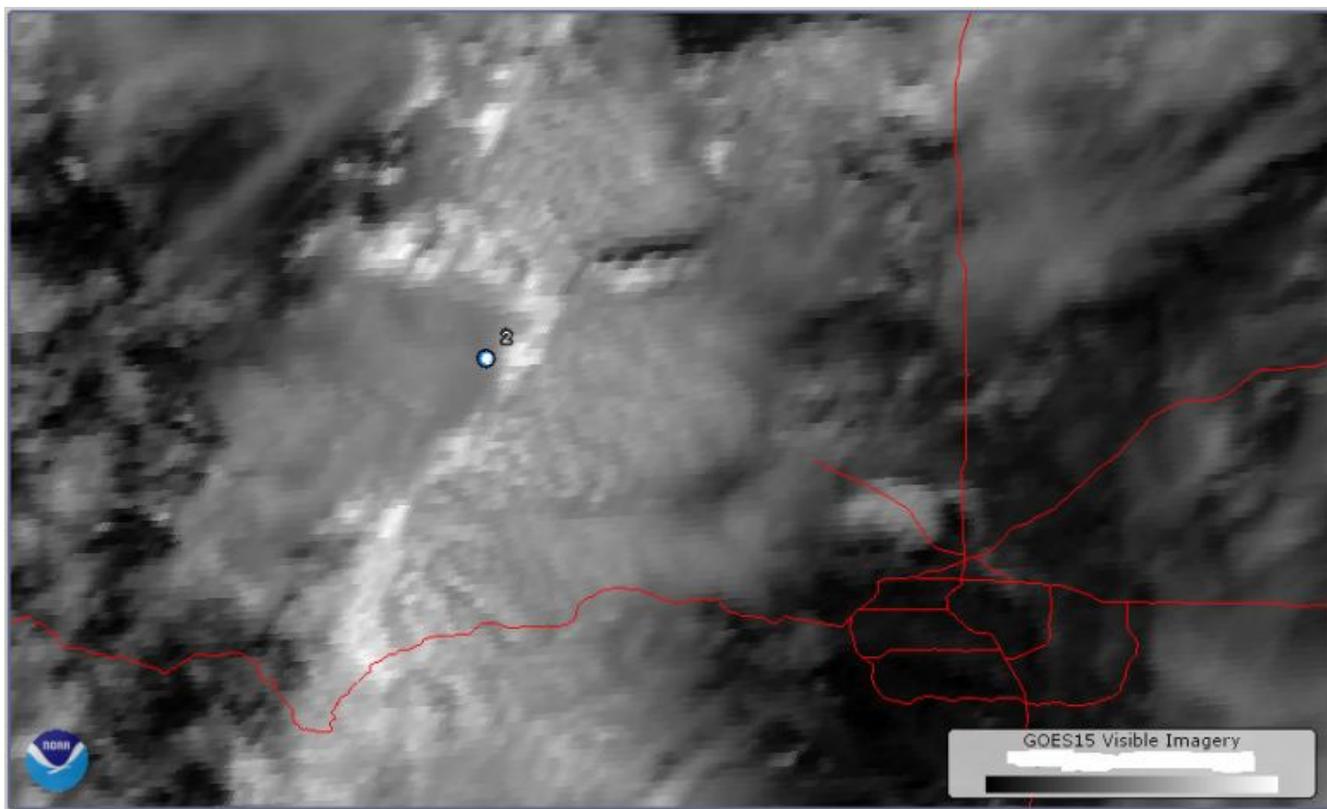
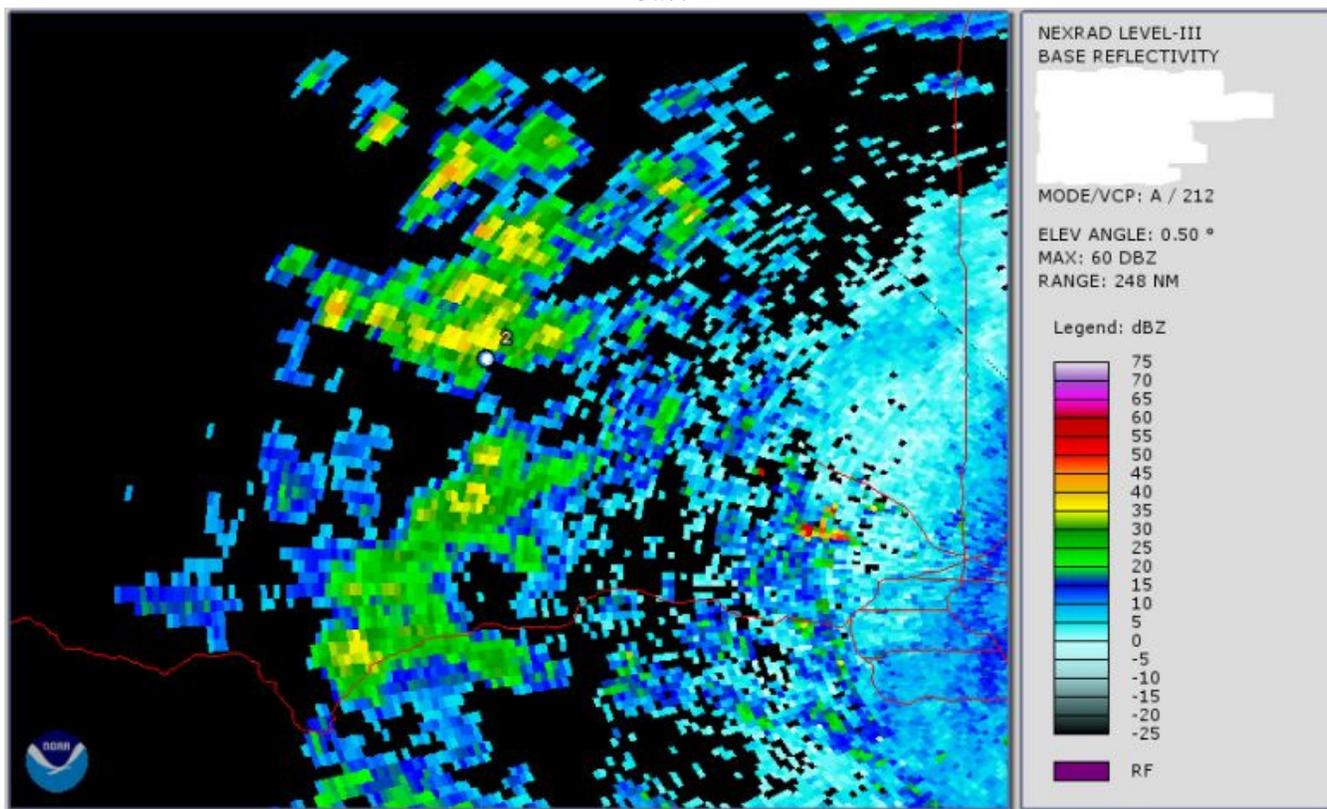


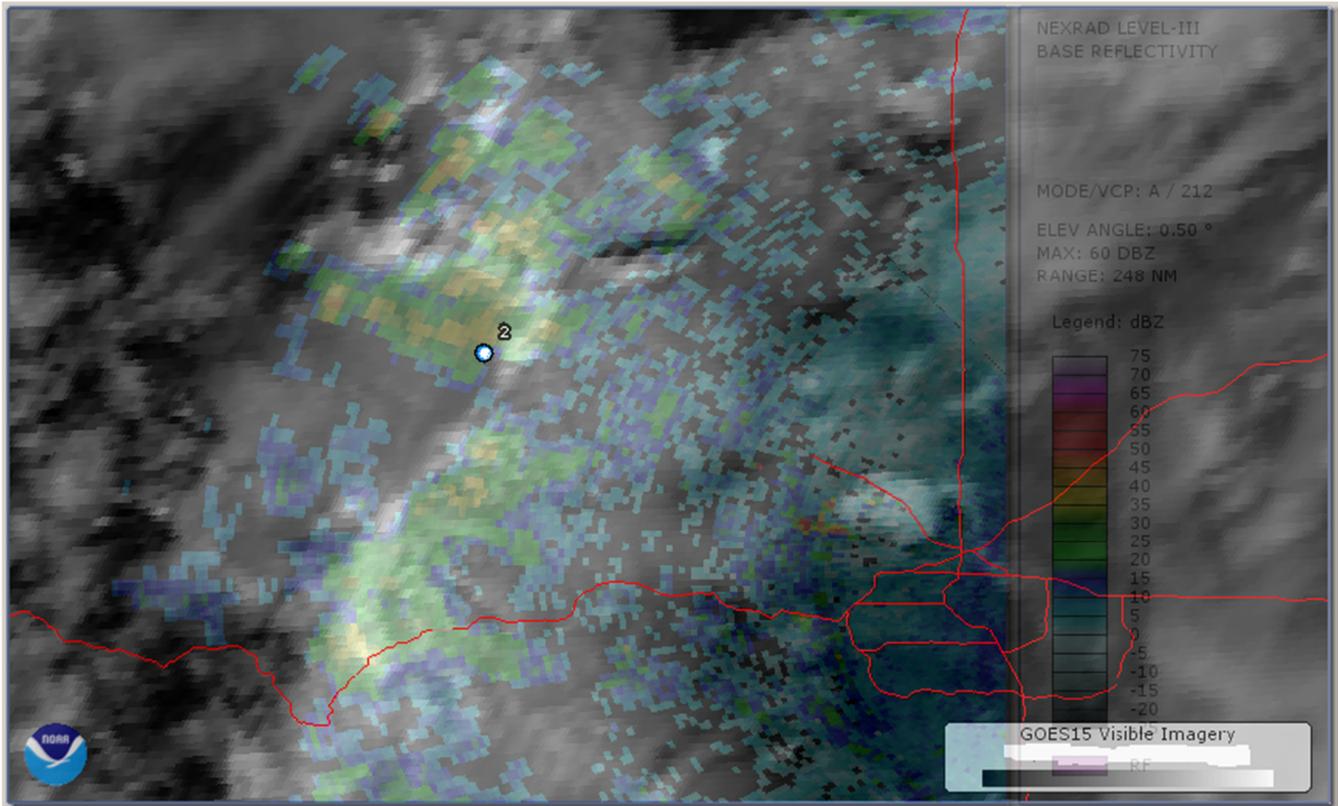
Composite image from radar and satellite images on previous page above.

In the radar image, the area of heaviest precipitation was approximately 1.6 miles to the west of the strike location. From the composite image, sky conditions as seen from the ground may have appeared to be more benign in appearance to the north, east and south, particularly towards the east. This assumes relatively unobstructed views in those directions.

From the CoreLogic report, the lightning strike closest in time and space to the strike location occurred at 2:57:10 PM MDT and was, at most, 0.3 miles away from the given coordinates. The strike was negative at 35.8 kiloamperes. On the date of the strike, there were a total of 74 strikes detected within a 10-mile radius of the strike location. Of the 74 strikes, only 4 were of greater absolute magnitude, all negative strikes, ranging in value from -37.7 to -68.9 kiloamps.

Case 2



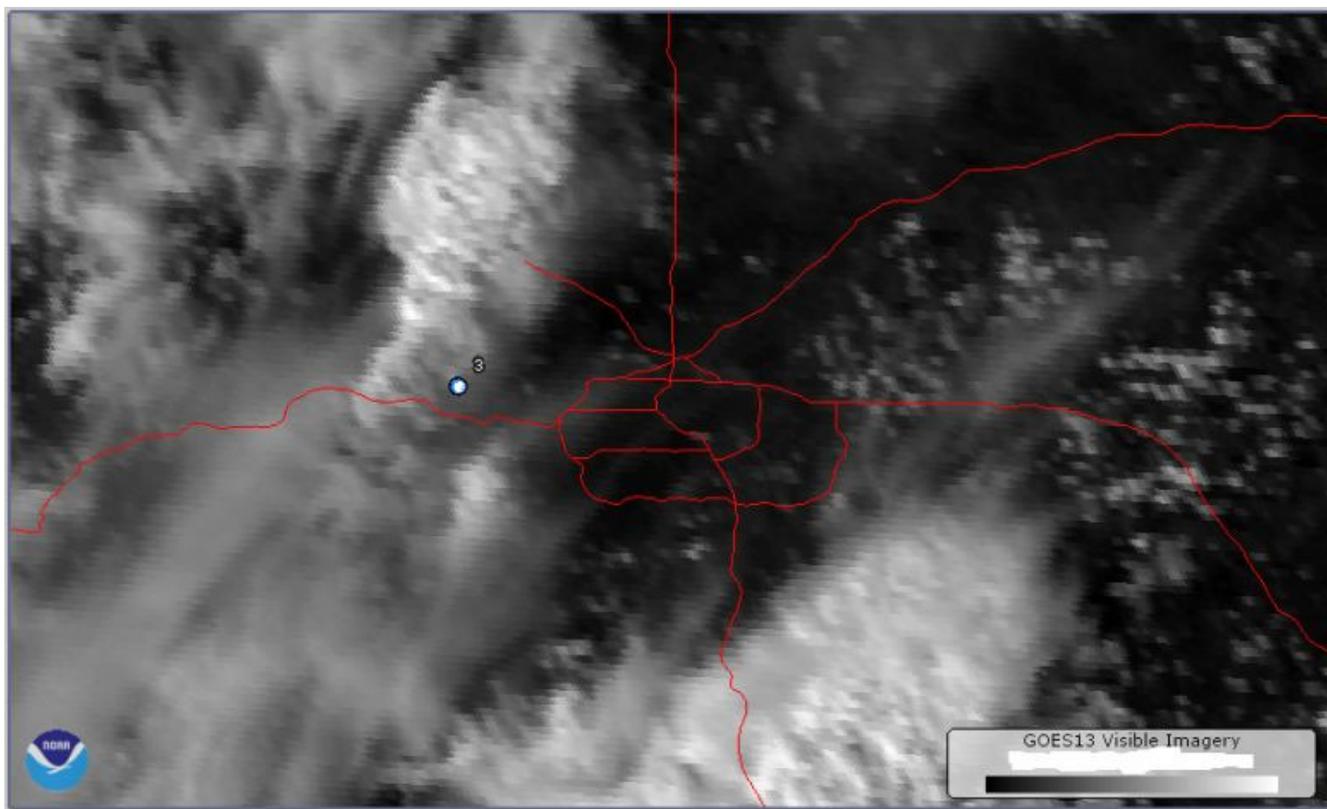
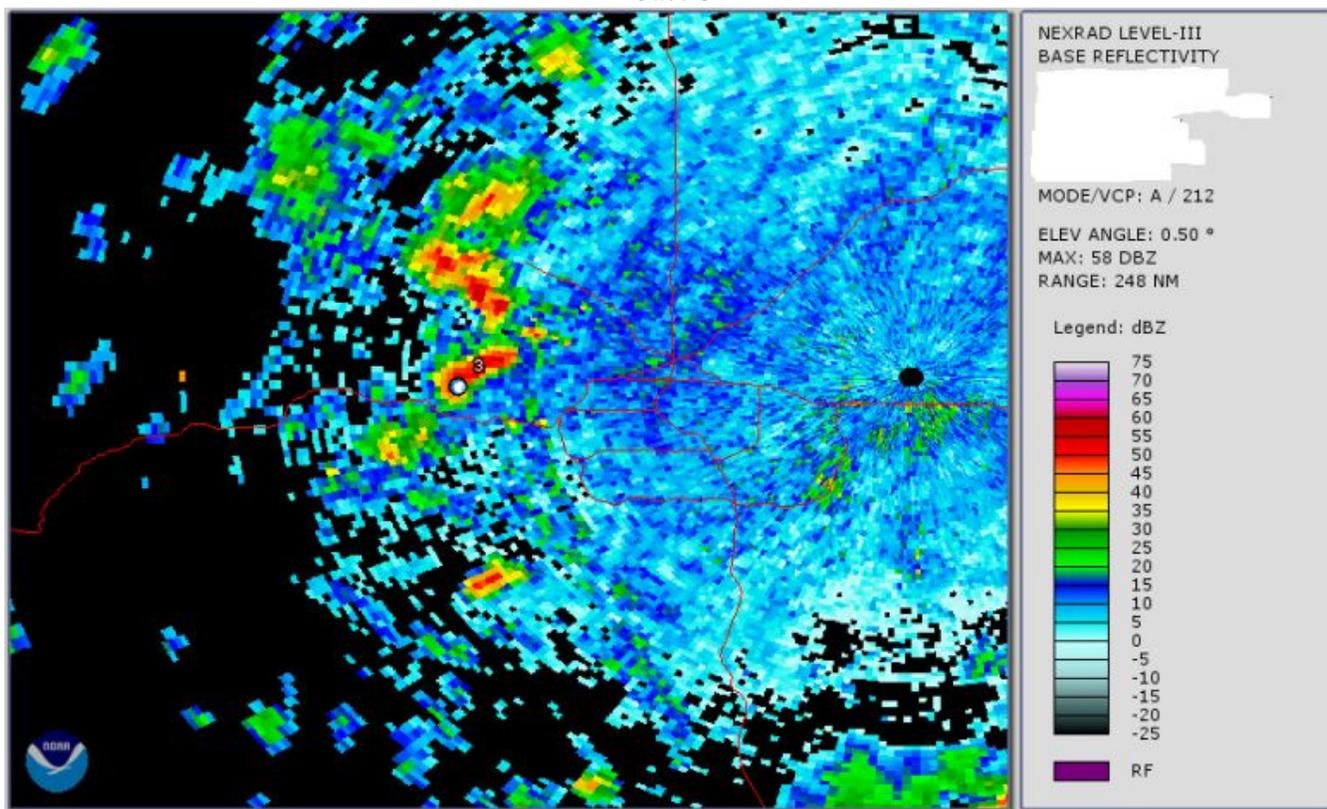


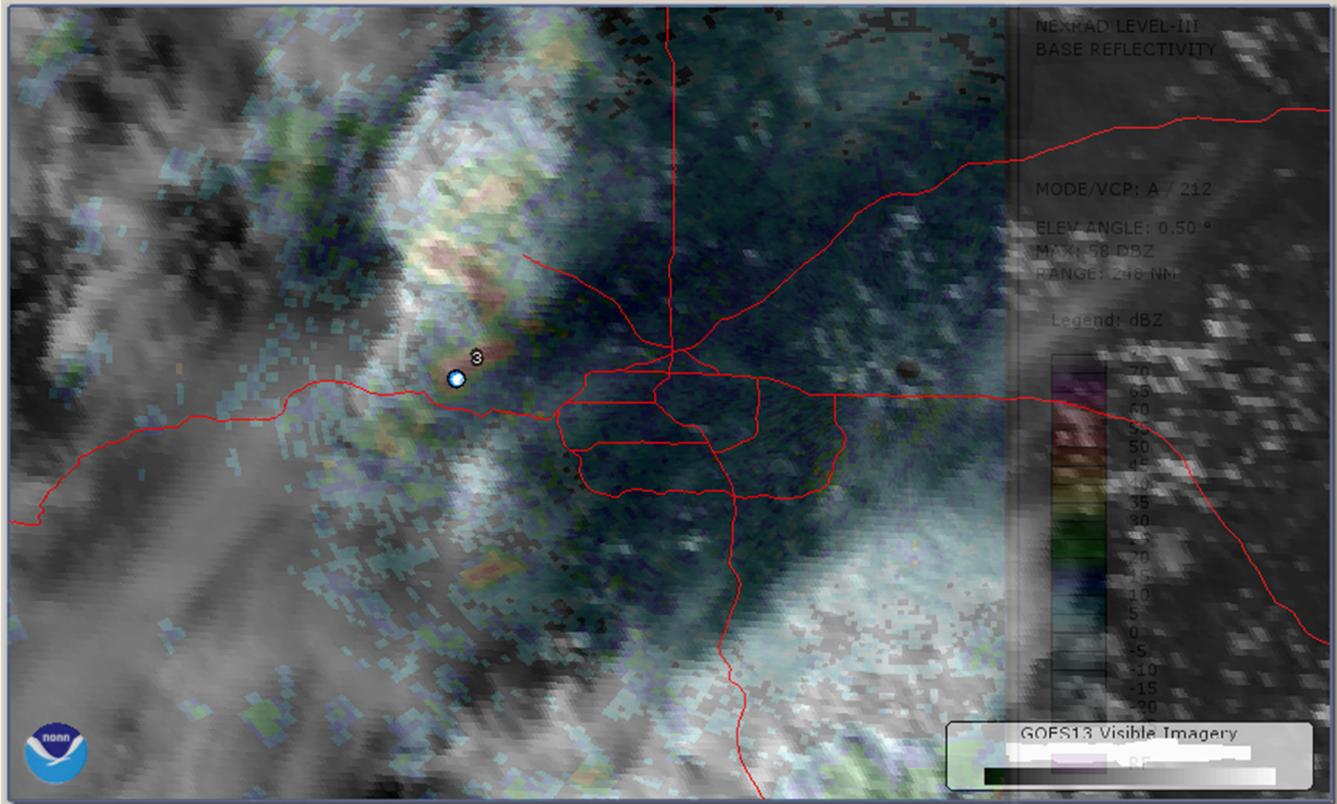
Composite image from radar and satellite images on previous page above.

In the radar image, the area of heaviest precipitation (moderate precipitation) was immediately to the north of the strike location. From the composite image, sky conditions as seen from the ground most likely appeared to be relatively clear to the southwest and the southeast. A weaker cell was due south of the strike location. These comments assume relatively unobstructed views in those directions.

From the CoreLogic report, the lightning strike closest in time and space to the strike location occurred at 3:25:49 PM MDT and was, at most, 0.3 miles away from the given coordinates. The strike was negative at 52.1 kiloamperes. On the date of the strike, there were a total of 150 strikes detected within a 10-mile radius of the strike location. Of the 150 strikes, only 8 were of greater absolute magnitude, all negative strikes, ranging in value from -53.1 to -128.8 kiloamps. Seven of the eight were from -53.1 to -89.9 kiloamps.

Case 3





Composite image from radar and satellite images on previous page above.

In the radar image, the area of heaviest precipitation was due north of the strike location. From the composite image, sky conditions as seen from the ground may have appeared to be more benign in appearance to the east, southeast, south and perhaps the southwest. This assumes relatively unobstructed views in those directions.

From the CoreLogic report, the lightning strike closest in time and space to the strike location occurred at 3:44:28 PM MDT and was, at most, 0.2 miles away from the given coordinates. The strike was negative at 19.6 kiloamperes. On the date of the strike, there were a total of 212 strikes detected within a 10-mile radius of the strike location, all during the afternoon hours. Of the 212 strikes, there were 36 negative strikes of greater absolute magnitude, all negative, ranging in value from -19.7 to -33.6 kiloamps.

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.

WPTV News, 2015. A Lightning Strike Injures 3 Boca Raton Firefighters. Link:
<https://www.youtube.com/watch?v=0gKfBjder64>
