



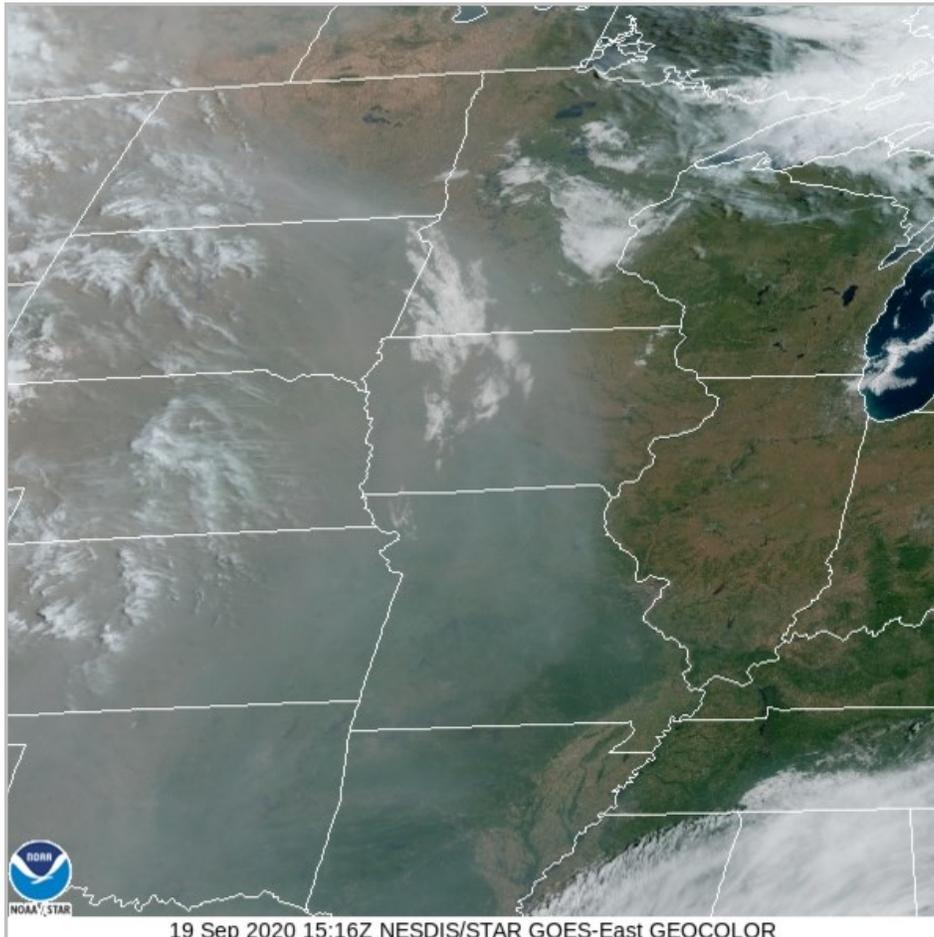
## The Weather Whisper

October 2020

### Western Wildfires Bring Hazy Skies to Iowa

*Brooke Hagenhoff, Meteorologist*

Wildfires across the western United States have burned over 7 million acres of land so far this year, resulting in severely reduced air quality there in addition to the evacuation orders, lost homes, and lost lives. While these fires burn on the other side of the country, the effects can be felt nationwide. In Iowa, hazy skies have become a frequent sight this month as smoke is pushed east into the area. During the daytime this results in a hazy appearance obscuring the blue, while sunrises and sunsets have blazed in shades of orange as smoke particles cause increased red and orange light scattering. Fortunately, air quality across the state has largely been unaffected. As fires continue to burn across the west, Iowa can expect to continue to see hazy skies as winds pull the smoke east across the country.



GOES-East satellite imagery from September 19th, 2020 shows smoke across much of the central and northern plains of the US and increasing into Iowa, Minnesota, and Missouri.

# High Resolution Imagery Helps Find Tornado Tracks in Derecho Damage

*Craig Cogil, Lead Meteorologist*

The August 10th derecho is well known for having produced devastating straight line wind damage across large segments of central and eastern Iowa. However, using high resolution satellite imagery and unmanned aircraft systems (UAS), four brief tornadoes were also found within the broader damage of the derecho. This imagery is usually not available until a few days to a few weeks after the event, therefore the tornadoes are generally found several days up to months after an event occurs. The suspected tornado tracks are then compared with radar data and nearby damage reports to verify that the paths are consistent

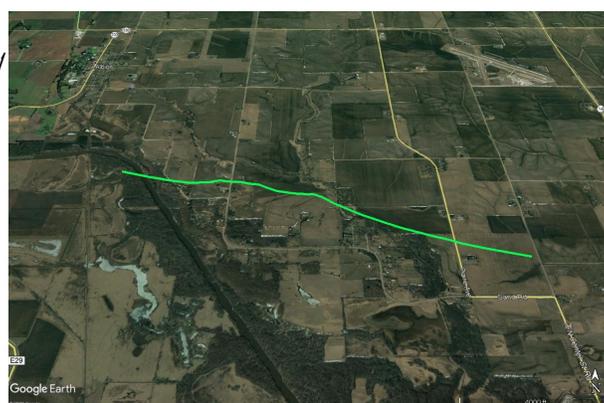
with the storms moving through that area. This is to ensure that the tornadoes were from the event in question and not from an event that occurred previously. UAS (drone) imagery may also be available and can usually clarify what produced the damage (straight line wind vs tornado) given the higher resolution of this data.

The four tornadoes found for this event were initially discovered using the high resolution satellite imagery. Shortly after finding these paths, the National Severe Storms Laboratory in Norman, OK had individuals in Iowa conducting

flyovers of damage areas. The flyovers included the four suspected tornado paths and confirmed that the damage was produced by tornadoes. Once the confirmation was made, the tornado paths and associated information was recorded and forwarded to Emergency Management in the affected counties and included in Storm Data which is a national database that archives storm events for historical and research purposes. Details on these tornadoes can be found under the "Tornadoes" tab at: <https://www.weather.gov/dmx/2020derecho>



Left: Satellite imagery of the EF-1 tornado track northwest of Marshalltown



Right: NWS track drawn using satellite and UAS imagery.

**Click image to view larger**



## Winter Weather Awareness

*Ken Podrazik, Meteorologist*

Winter, yes winter, is not far away for Iowa. Maybe that's exciting for some, but others dread the winter months every year. From dangerously cold temperatures and wind chills to heavy wet snow causing major traffic delays, a few simple things to prepare you and your family will go along way to help alleviate the stress or anxiety related to winter travel.

On Thursday, November 5th, we'll

have our yearly Winter Weather Awareness Day for Iowa. We discuss how to prepare your vehicle's winter survival kit as well as a survival kit for your home. Topics such as the difference between and Winter Storm Watch and a Winter Storm Warning as well as what is the criteria for a blizzard and many others will be discussed throughout the day on

[Facebook](#) and [Twitter](#).



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