

**With Steve LaNore, CBM
August 5, 2020**

Isaias: “Racetrack” storm wields a wallop along east coast



Hurricane “Isaias” as it makes landfall just before midnight on Aug 3, about 25 miles from Wilmington/NWS data

Isaias wasn't all that impressive on radar. A ragged eye. Top winds of Category One strength, 85 mph. BUT... it dealt a billion-plus dollar blow to the eastern U.S. from North Carolina to the Canadian border. The system started out as a tropical depression in the eastern Caribbean before eventually making landfall as a Cat 1 hurricane near Wilmington, NC on August 3. It sped up as it churned northward, reaching forward speeds (not wind speeds) of 40 mph by the time it crossed New York State. That's racetrack speed for a tropical system.

Just 10 days previous, Category 1 "Hanna" came ashore in south Texas; flooding was the villain in that storm much more so than wind.



However, Isaias' track (above) affected over 100 million people whereas Hanna's about one million. Plus, the eastern U.S. is heavily forested offering many more opportunities for trees to take out power lines, roofs and vehicles, which they did. THREE AND A HALF MILLION people were without power on August 4th!

Lastly, Isaias spun up a number of destructive tornadoes and that really wasn't true with Hanna. Nearly all tropical storms and hurricanes generate tornadoes so it's really just the luck of the draw where they show up, BUT Isaias had some help from a strong upper jet which gave it a turbo-boost for tornadoes. It also kept the sustained winds going much longer than typical for a system over land.

One of Isaias' tornadoes turned deadly when it hit a North Carolina mobile home park, killing two, about three hours after landfall. At least a dozen others were hurt. This is yet another sad testament of why you should never ride out severe weather in a mobile home.



Weather observations for the past three days

New York, Kennedy International Airport

Enter Your "City, ST" or zip code

Go

metric

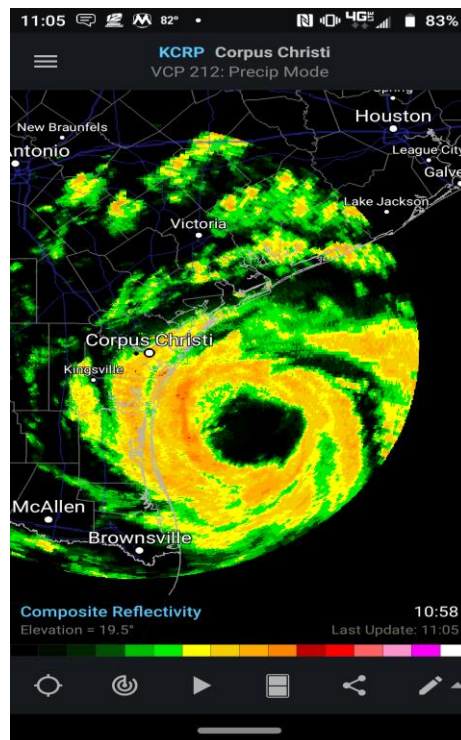


Date	Time (edt)	Wind (mph)	Vis. (mi.)	Weather	Sky Cond.	Temperature (°F)				Relative Humidity	Wind Chill (°F)	Heat Index (°F)	Pressure		Precipitation (in.)		
						Air	Dwpt	6 hour					altimeter (in)	sea level (mb)	1 hr	3 hr	6 hr
								Max.	Min.								
04	18:51	SW 22 G 29	10.00	Partly Cloudy and Breezy	SCT046 SCT250	80	67			64%	NA	82	29.82	1009.8			
04	17:51	SW 29 G 37	10.00	Partly Cloudy and Windy	SCT041 SCT250	81	67			62%	NA	83	29.78	1008.3			
04	16:51	SW 32 G 45	10.00	Partly Cloudy and Windy	FEW024 SCT037 SCT060 SCT250	81	67			62%	NA	83	29.73	1006.7			
04	15:51	W 43 G 60	10.00	Light Rain and Windy	BKN019 BKN031 BKN060	78	68			71%	NA	80	29.56	1000.8			
04	14:51	S 32 G 43	5.00	Light Rain and Windy	BKN013 BKN018 BKN034	73	68			84%	NA	NA	29.49	998.6			
04	13:51	S 46 G 62	4.00	Light Rain and Windy	BKN021 OVC026	73	68	80	73	84%	NA	NA	29.51	999.3			0.12

National Weather Service observations from JFK, Aug 4th, 15 hours after Isaias' landfall

Earliest ever for #8...

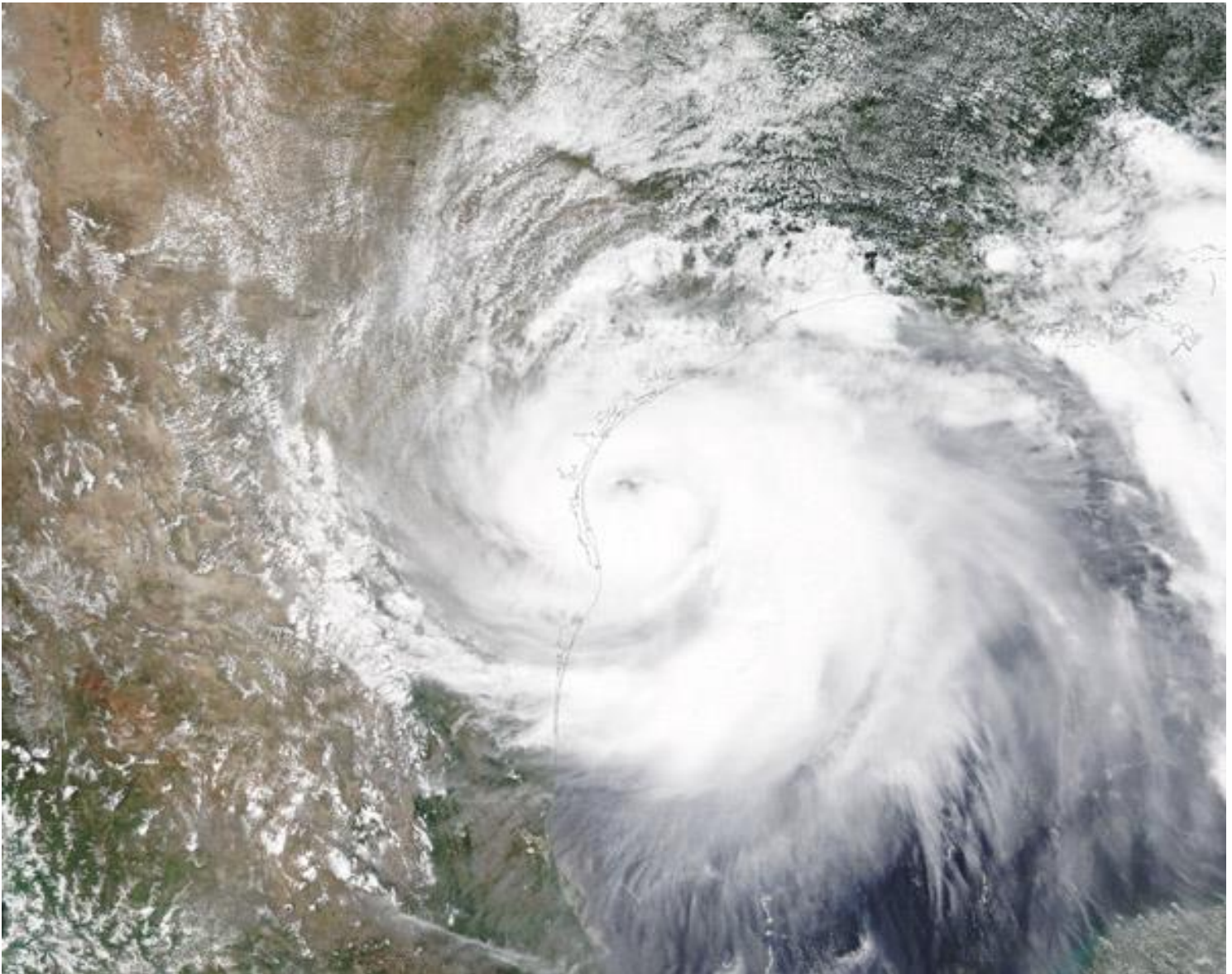
When Tropical Storm "Hanna" formed over the central Gulf of Mexico on July 23 (just eight days before Isaias took shape) it became the earliest ever for the 8th storm of an Atlantic hurricane season, beating the previous record by a week. Hanna went on to become the season's first hurricane, coming ashore as a Category One storm south of Corpus Christi on July 25. This was not a major catastrophe like Harvey or Irma, but it still gave south Texas a beating with winds taking a back seat to storm surge flooding and inland flash floods.



Hurricane "Hanna" as seen on radar about six hours before landfall / NWS data

The floods made the biggest waves with some spots along Hanna's track racking up more than a foot of rain in 36 hours. Some 200,000 people were without power by early Sunday and there were still 60,000 without electricity two days later. Floodwaters hindered electrical crews from getting at the stricken areas. Corpus Christi really got lucky on this one, had the storm made landfall just 50 miles closer the damage, although not extreme, would have been much more extensive in the densely populated city. Perhaps the Corpus area's most notable casualty was the Bob Hall Pier, which has withstood a number of hurricanes since 1950, but it succumbed to Hanna's battering waves and wind with a portion of it collapsing.

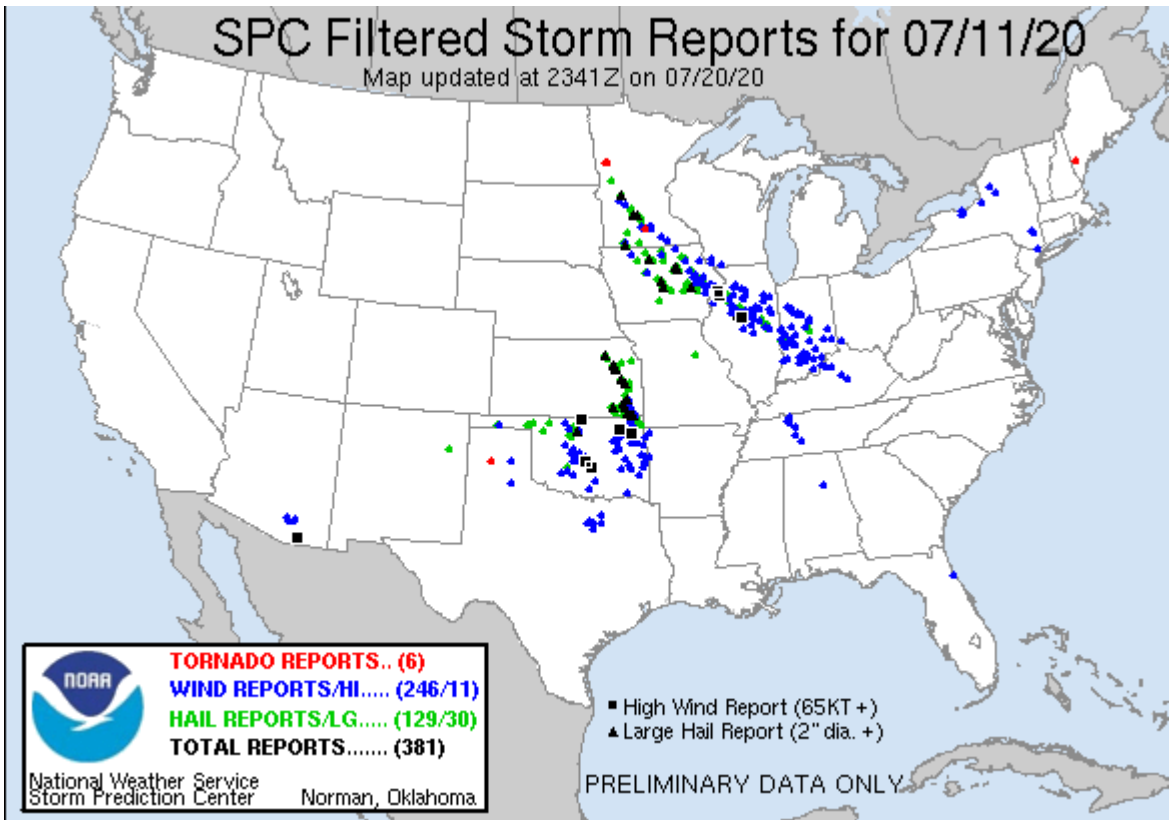
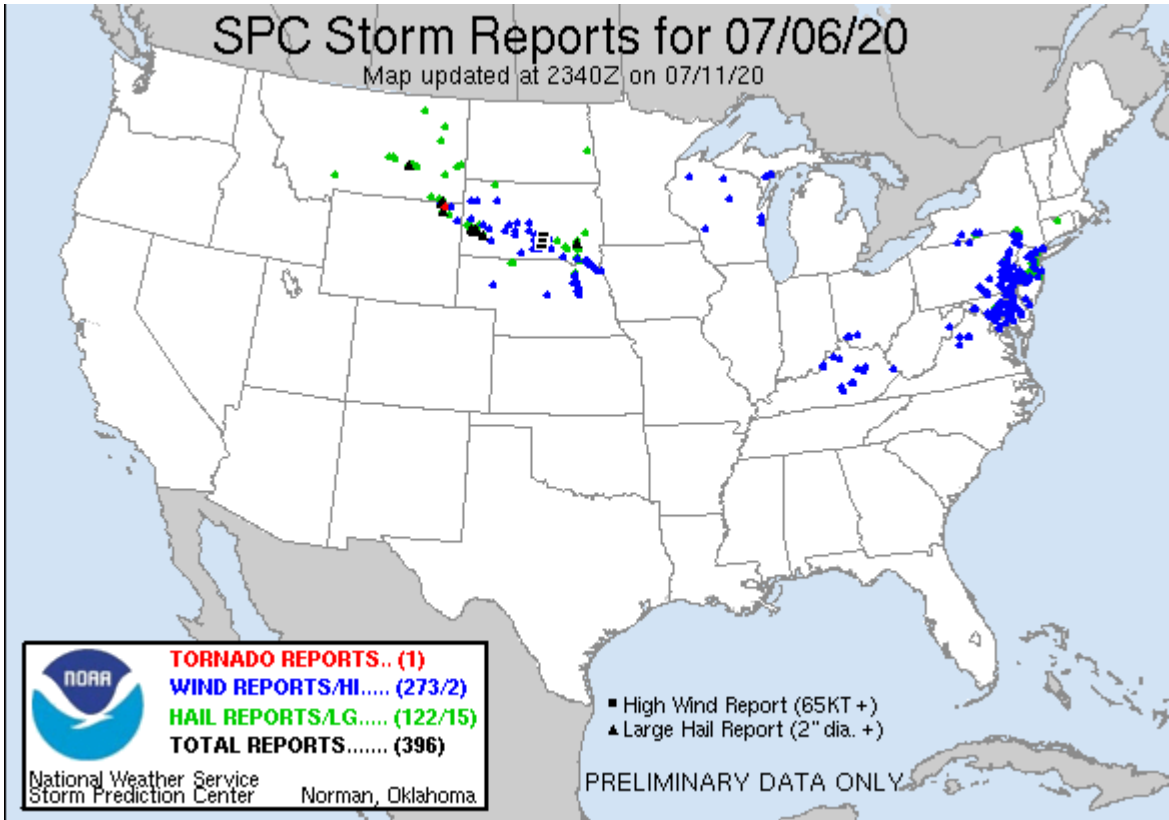
Catastrophe modeling firm Karen Clark & Co. (KCC) used their "High-Resolution US Hurricane Reference Model" to generate a figure for insured losses from Hurricane Hanna - around \$350 million. This does not include National Flood Insurance Program (NFIP) totals. This is very low-end as hurricanes go these days. In contrast, the damage from 'Isaias' is likely to be several billion.

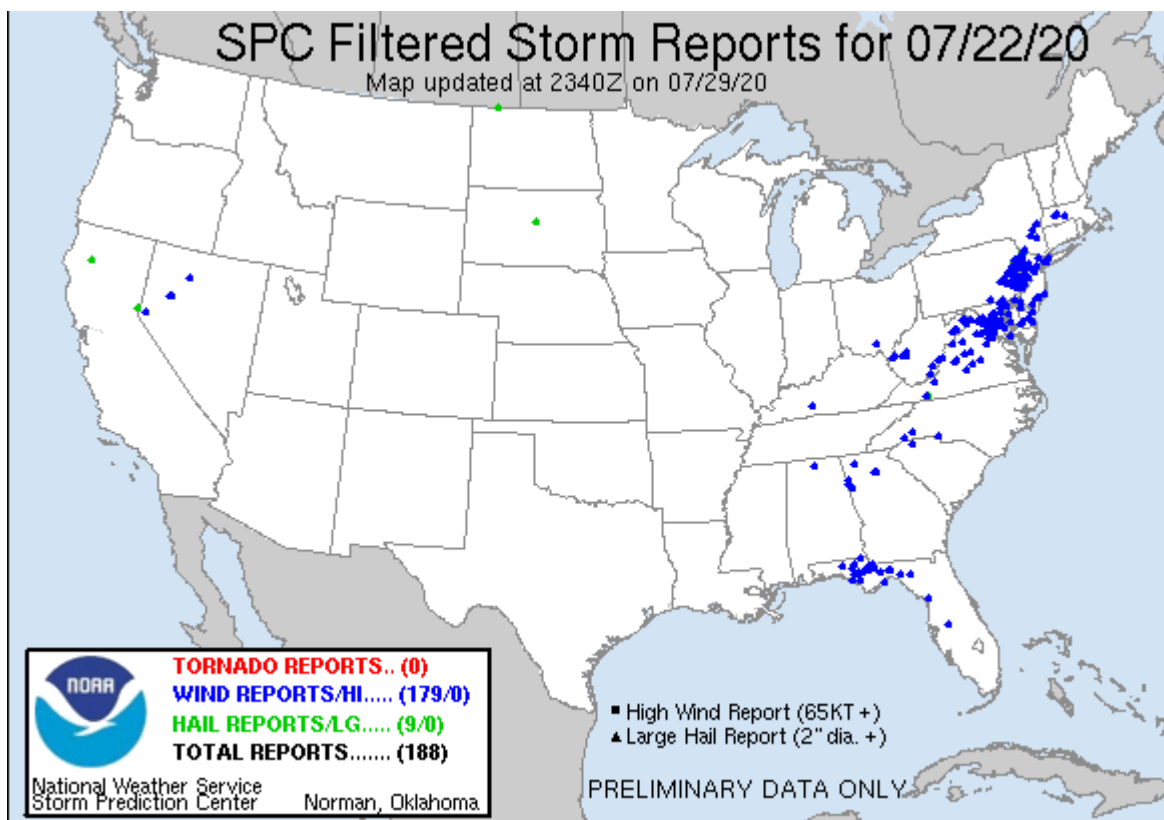
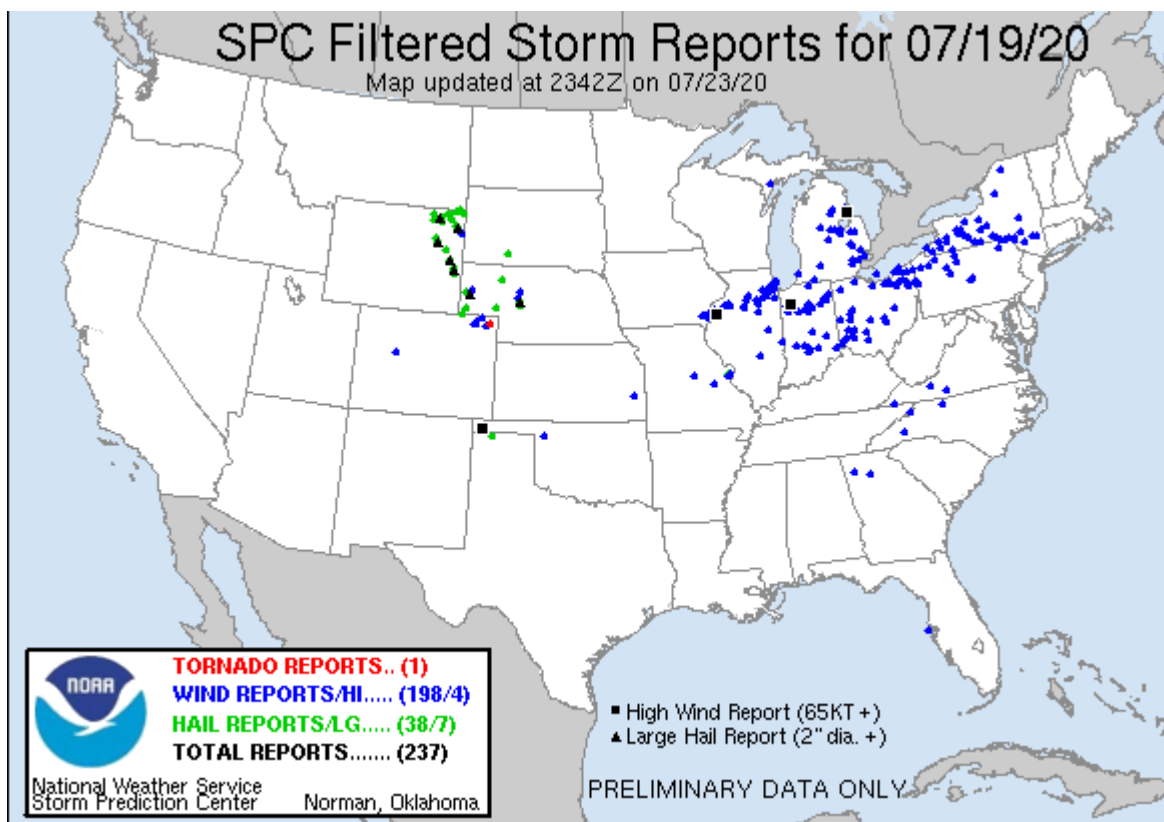


NASA's "MODIS" image of Hurricane "Hanna" on the morning of July 25

The July “Slamfest”

July continued the rapid-fire pace of June’s large-scale, multi-state wind damage events (blue dots):





Above maps: SPC data

Notice New Jersey and eastern PA really took it on the chin, getting hit twice in two weeks (July 6 and 22). Chicago and Detroit were in the line of fire on July 19. A total of some 1,000 wind damage reports were racked up during the four days featured above, damage collectively about \$500 million.

Fire Season: A bit of a Break

Wildfires pop across the semi-arid western states northward into Canada every year, and we’ve had a few big ones this year like the western Utah blazes we touched upon last month. But, the overall fire coverage is less than usual, in fact this year has the second lowest numbers of acres damaged by fire since 2010:

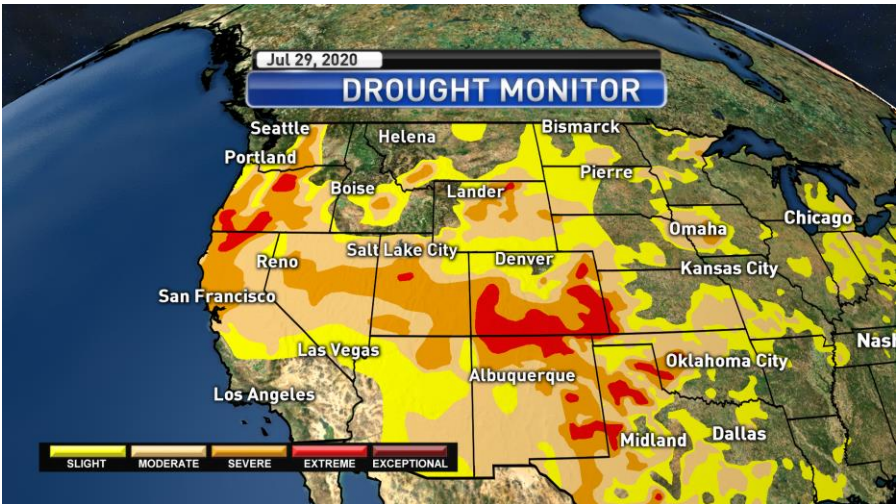
Year-to-date statistics		
2020 (1/1/20 - 7/28/20)	Fires: 30,760	Acres: 1,942,015
2019 (1/1/19 - 7/28/19)	Fires: 25,357	Acres: 3,149,811
2018 (1/1/18 - 7/28/18)	Fires: 35,752	Acres: 4,242,621
2017 (1/1/17 - 7/28/17)	Fires: 37,987	Acres: 5,279,990
2016 (1/1/16 - 7/28/16)	Fires: 33,035	Acres: 3,231,673
2015 (1/1/15 - 7/28/15)	Fires: 34,995	Acres: 5,569,671
2014 (1/1/14 - 7/28/14)	Fires: 32,164	Acres: 1,618,732
2013 (1/1/13 - 7/28/13)	Fires: 27,323	Acres: 2,257,949
2012 (1/1/12 - 7/28/12)	Fires: 36,683	Acres: 4,046,445
2011 (1/1/11 - 7/28/11)	Fires: 43,651	Acres: 6,032,386
2010 (1/1/10 - 7/28/10)	Fires: 36,469	Acres: 1,960,612
10-year average Year-to-Date		
2010-2019	Fires: 34,206	Acres: 3,731,145

Only year with fewer fire-damaged acres since 2010.

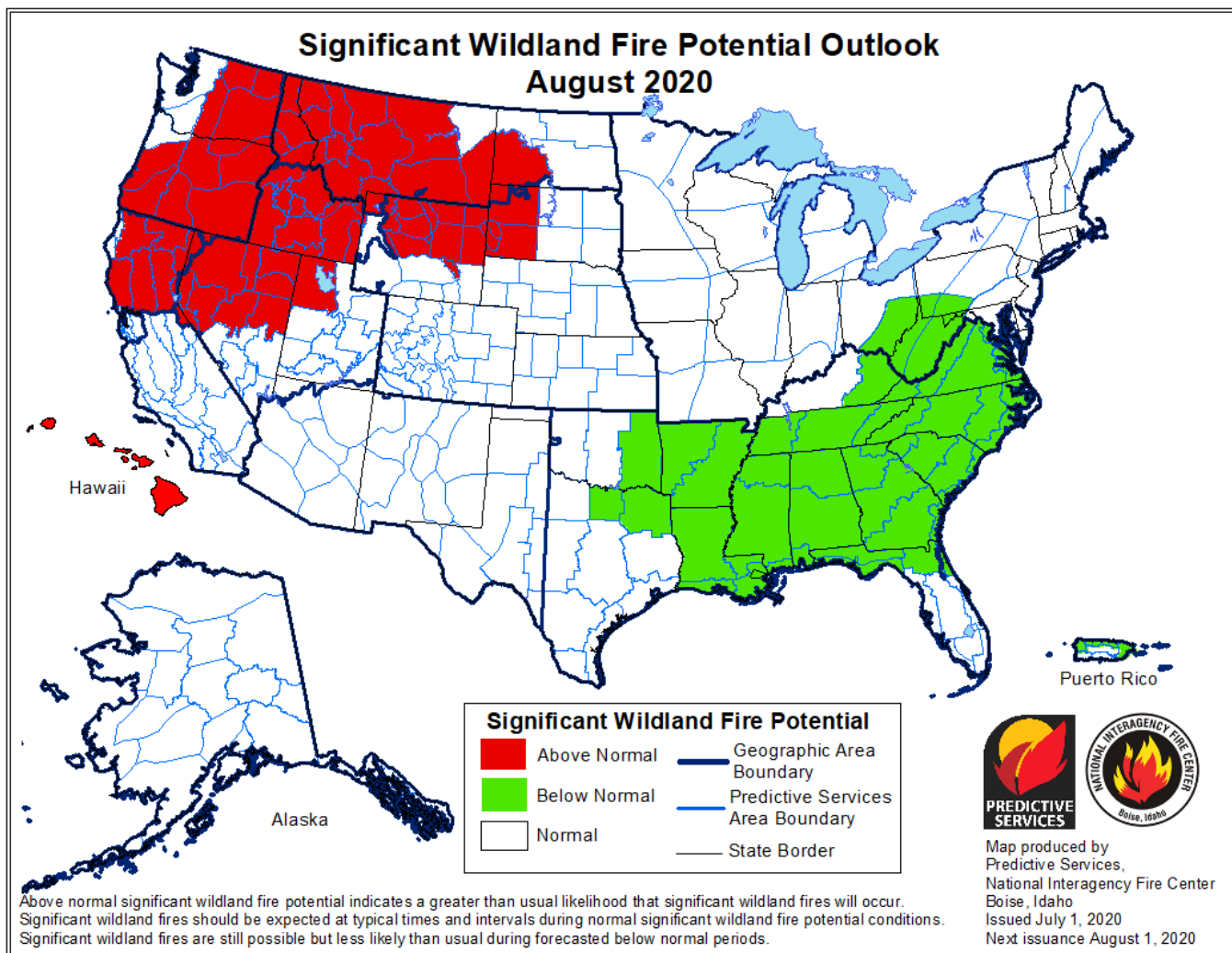
National Interagency Fire Center (NIFC)

In fact, the total acreage burned year-to-date is only HALF of the 10-year average! Some great news – but there’s no way we’re getting out of fire season without a few “bad” ones - and in fact the “Apple” fire over southern CA reached 26,000 acres on August 5th, and get this – it was started by a faulty exhaust system on a diesel vehicle. It gets so dry in the region that even a dragging chain can fire off an inferno.

Overall, however, despite a few large fires only a small number of structures have been lost compared to the fire-pocalypses of 2018. Here the Drought Monitor (below) shows the greatest U.S. risk areas based on hydrologic and soil data:



...and that ties in well with the August fire risk outlook from the NIFC:



National Interagency Fire Center / NIFC

Tropics on Overdrive

The 2020 Atlantic Hurricane Season has already set records for the number of storms to this point in the season, but remarkably they have all been fairly weak ones as wind speeds go. Hurricane “Hanna” and Isaias” both reached only Cat 1 strength, but as Isaias showed us Cat 1 can still wield a mighty fist of trouble.

We should worry a bit, we’ve seen so many storms already and a stronger hurricane is bound to show up during the next couple of months – A typical hurricane season has at least two major (Cat 3 or higher) storms and one like this should have three or four. We’ve had zero so far - it’s all in the math. Of course it’s impossible to say where it would hit until we see it taking shape. Stay tuned and have a great late summer!

Take Care,

Steve LaNore, CBM