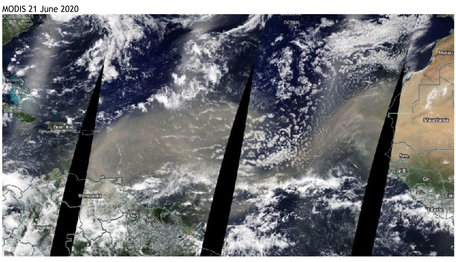
CAVEAT: The Dust Report is an informal ad hoc commentary that focuses on interesting African dust events.
These reports should not be regarded as definitive statements on these events or their possible impacts.
Joseph M. Prospero

The huge dust outbreak continues to move to the west as a coherent mass. From Worldview MODIS on 21 June. The leading edge of the cloud that we have followed for the past few days is located today over the Windward Island (just to the right of the left-most blackout strip). The dusty area is remarkably free of clouds because of the suppression by the inversion at the base of the Saharan Air Layer (SAL). Meanwhile, another dust outbreak is seen emerging from the coast of West Africa.

MODIS 21 June 2020

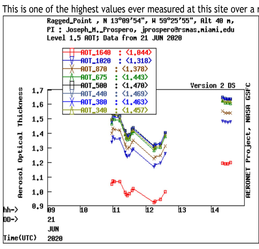


MODIS products obtained at NASA Worldview:
https://worldview.earthdata.nasa.gov/?v=-118.90319299805029,21.294078616498794,25.576246666393442,46.24253445466333&t=2020-07-08-T08%3A00%3A00Z&l=MODIS_Terra_Aerosol(hidden),MODIS_Aqua_Aerosol(hidden),Reference_Labels,Reference_Features,Coastlines,VIIRS_SNPP_CorrectedReflectance_TrueColor(hidden),MODIS_Aqua_CorrectedReflectance_TrueColor(hidden),MODIS_Terra_CorrectedReflectance_TrueColor

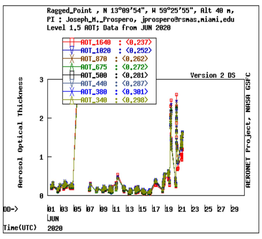
This is a video loop of the dust moving through the Windward Islands.
https://go.wisc.edu/lg0v7d

At Barbados, the aerosol optical depth increased to about 1.5 (at 500nm):
https://aeronet.gsfc.nasa.gov/cgi-bin/data_display_aod_v3?site=Ragged_Point&nachal=0&year=2020&month=6&aero_water=0&level=2&if_day=0&if_err=0&place_code=10&year_or_month=0

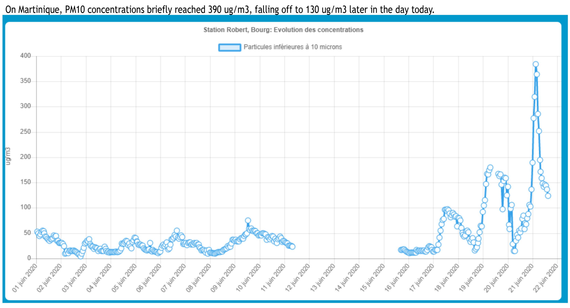
This is one of the highest values ever measured at this site over a record that extends to the late 1990s.



And this is the record for the month of June:

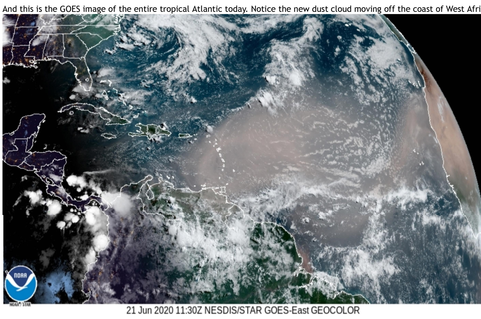


On Martinique, PM10 concentrations briefly reached 390 ug/m3, falling off to 130 ug/m3 later in the day today.



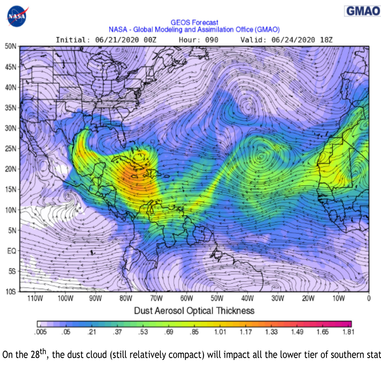
It is interesting that the highest dust concentrations are at the dust front. You can see this in the U Wisc loop that I link to above. And you can see it in the PM10 at Martinique record pasted here.

And this is the GOES image of the entire tropical Atlantic today. Notice the new dust cloud moving off the coast of West Africa.



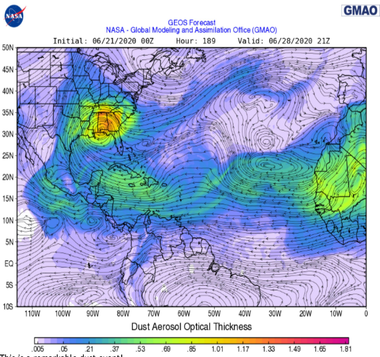
21 Jun 2020 11:30Z NESDIS/STAR GOES-East GEOCOLOR

The NASA GEOS-5 Model shows the dust cloud maintaining its integrity, hitting the Gulf coast on the 24th. Miami will get a little dust through the "back door", from the west.



On the 28th, the dust cloud (still relatively compact) will impact all the lower tier of southern states. Smaller amounts will penetrate almost to Canada.

On 28 June, later in the day, the dust cloud is moving east, passing over the southeast coast of the US, from Florida north to Virginia. But the main cloud is going to miss Miami once again.



This is a remarkable dust event!

From: CNN
https://www.cnn.com/2020/06/21/weather/saharan-dust-tropical-forecast-hurricane-update-sunday/index.html

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