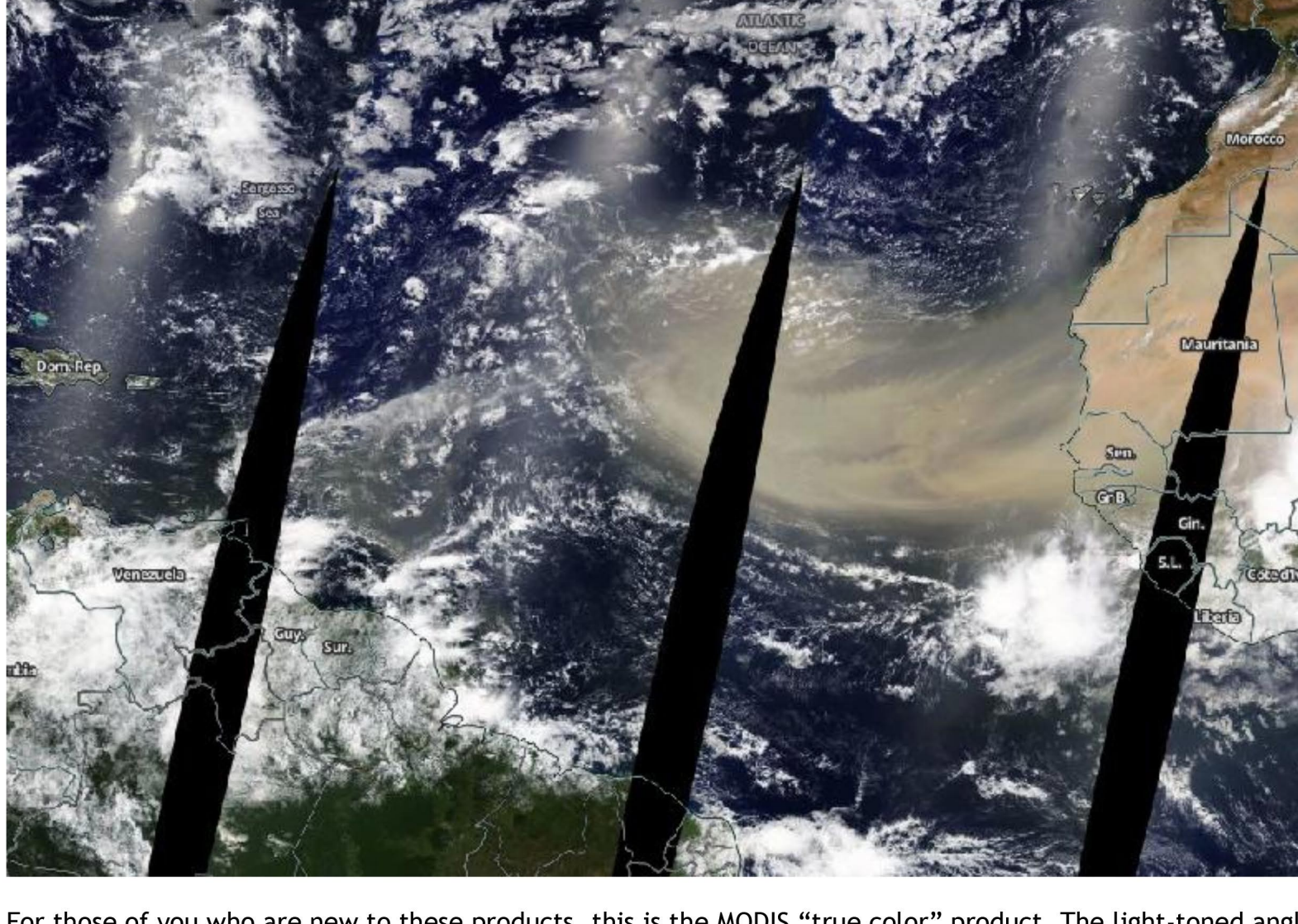


CAVEAT: The Dust Report is an informal ad hoc commentary that focuses on interesting African dust events. These reports should not be regarded as definitive statements on these events or their possible impacts.

Joseph M. Prospero

This is developing into a really huge dust event - probably the first of a series of events that we will follow. So I am following it closely for future reference should we want to reconstruct the evolution of the dust storms.

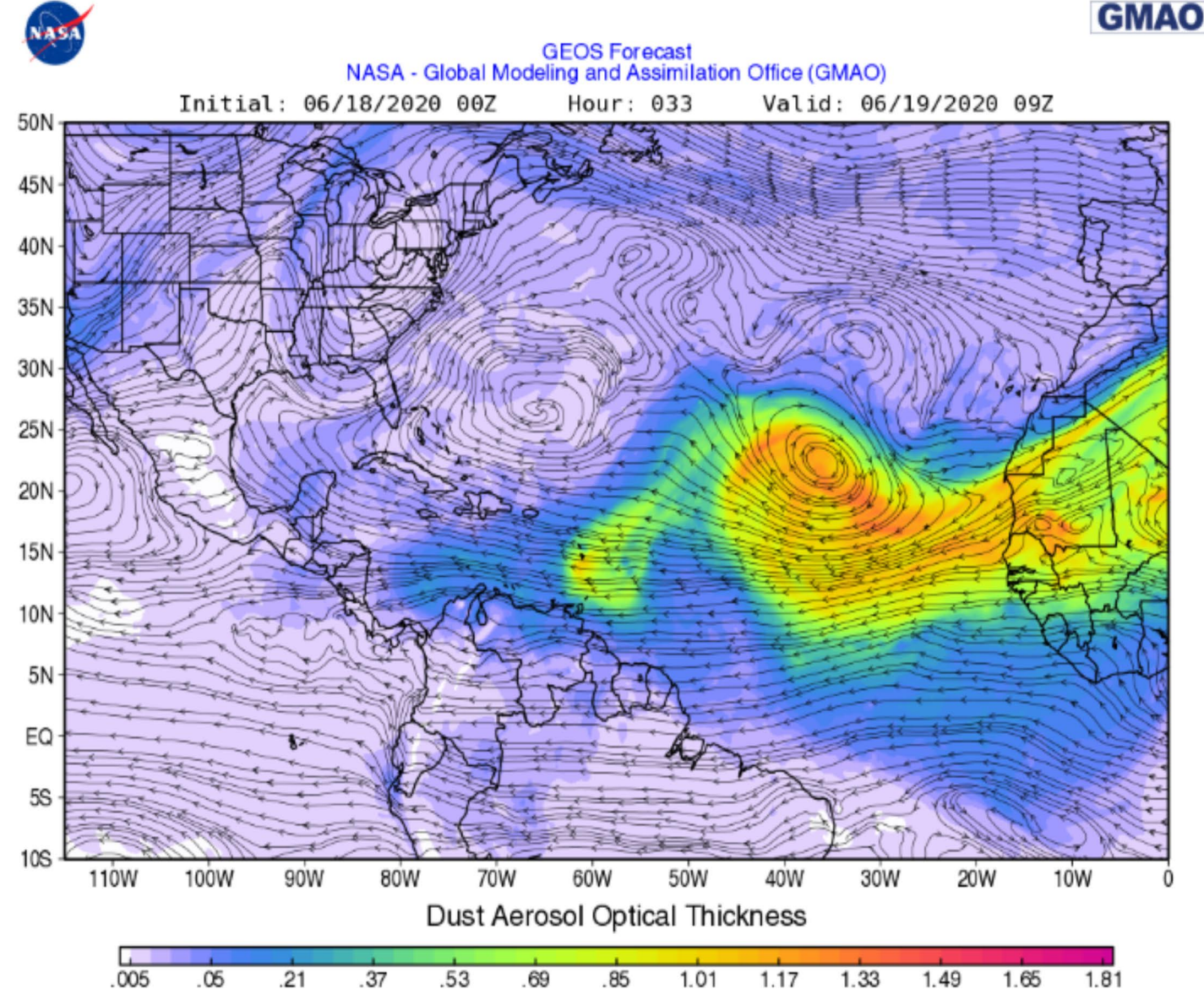
The huge dust outbreak continues along the coast of Africa and the plume now extends well into the central tropical NAO. Note the absence of cloud in the region of the outbreak over the Atlantic. This is a result of the extremely intense suppression by the strong inversion at the base of the Saharan Air Layer.



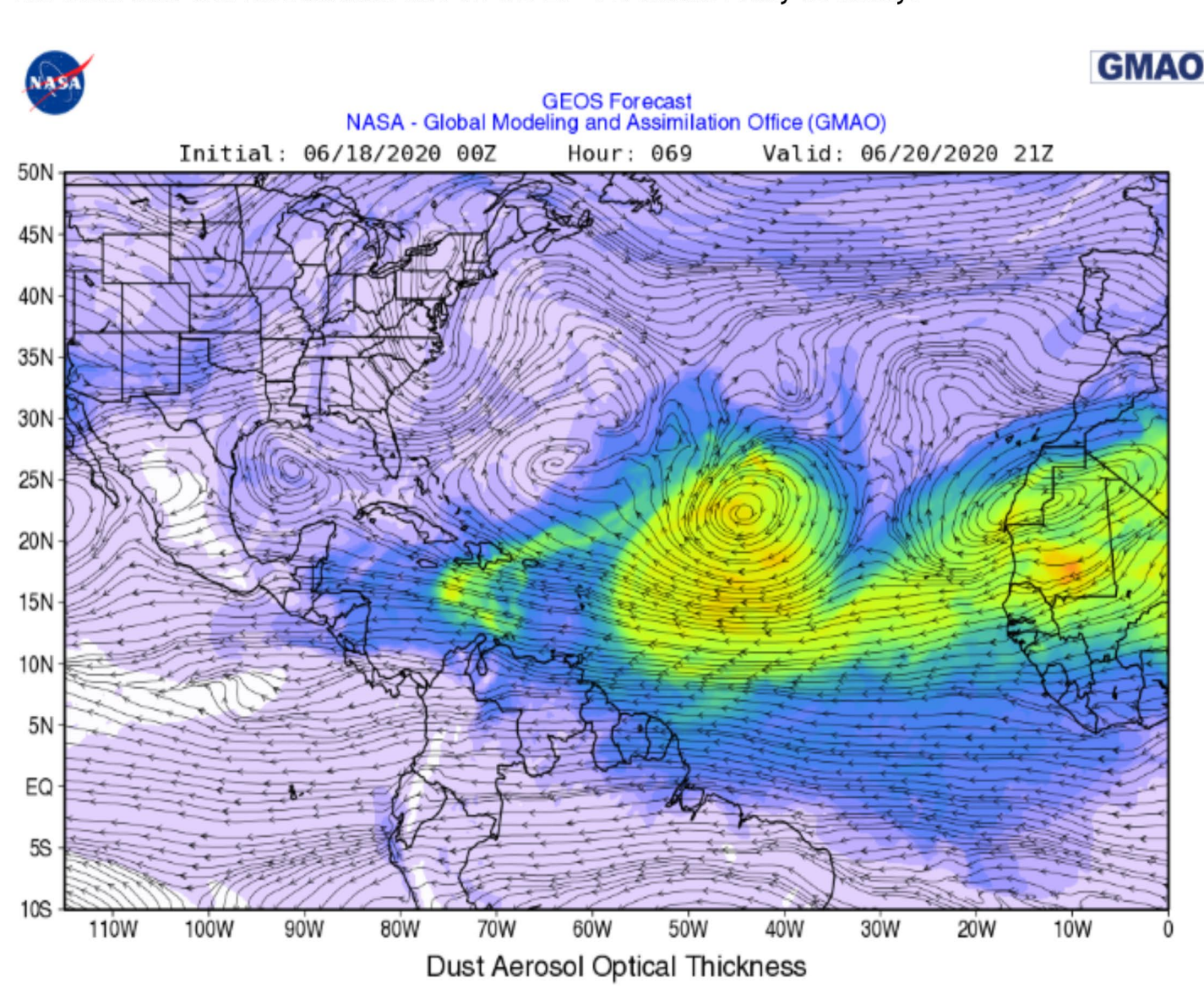
For those of you who are new to these products, this is the MODIS "true color" product. The light-toned angled-patches in the middle of the swath is due to sun glint on the sea surface. Extremely heavy dust continues to pour across the coast in the region of Dakar (the pointed area along the coast in Senegal). Barbados is under the cut-out black area between the swaths. The AOD from Ragged Point shows increasing AOD late in the day. They will probably get more dust tomorrow from that hazy blob to the east of the island.

The NASA GEOS model shows that the next couple of weeks are likely to be very dusty. The dust will impact the entire Caribbean Basin.

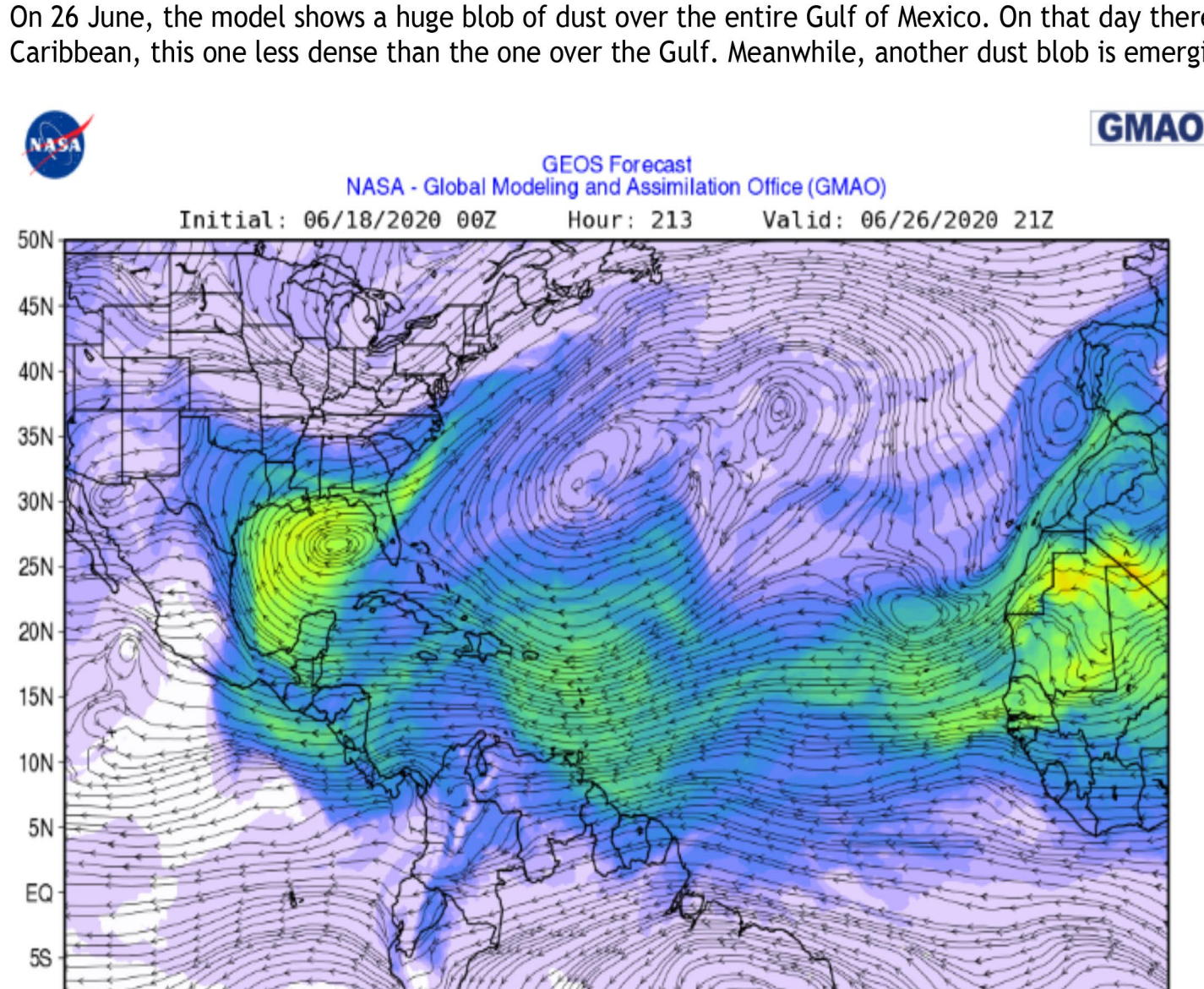
This is the forecast for tomorrow late in the day.



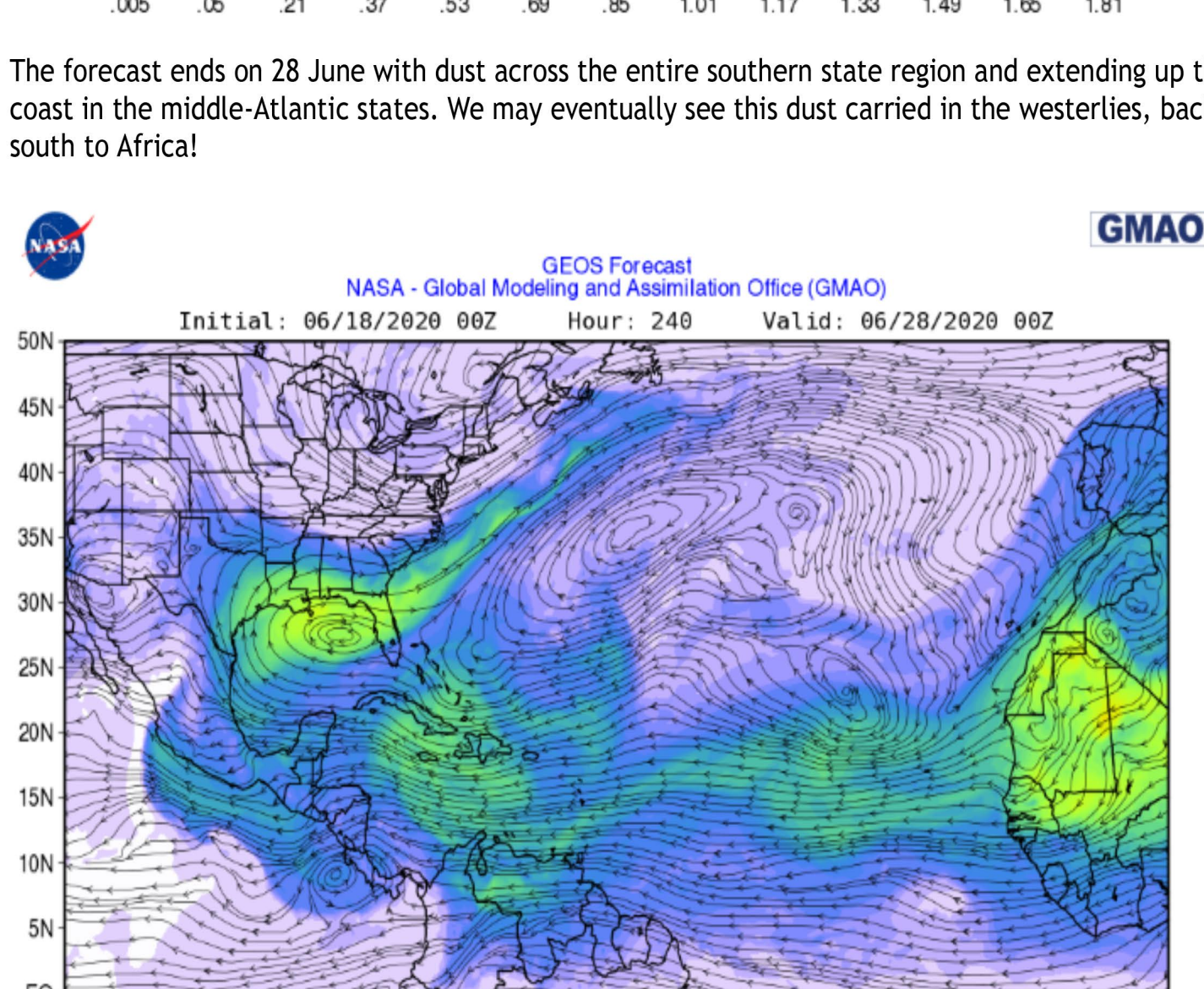
The main blob will hit Barbados late on the 20th. It should really be heavy!



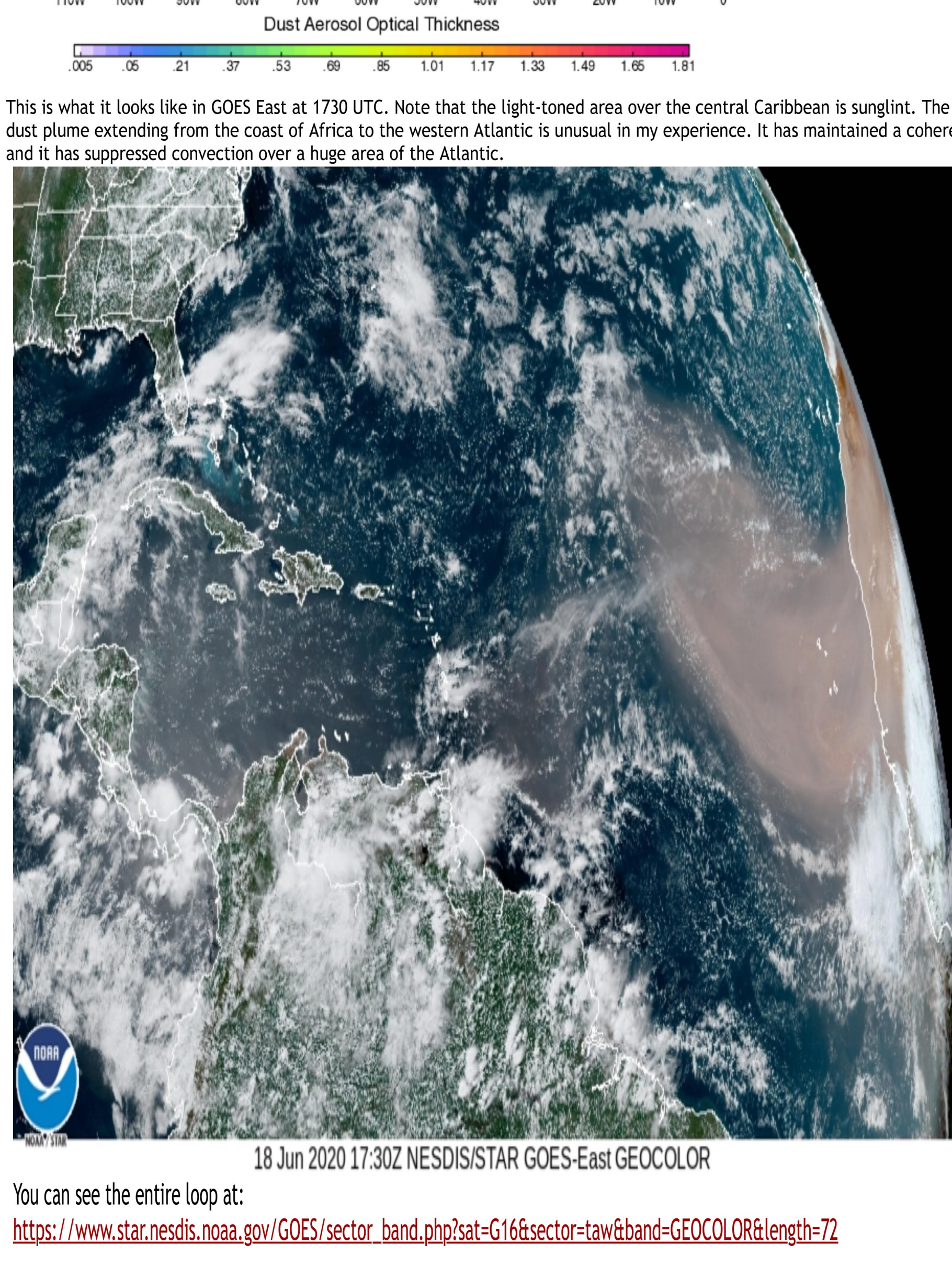
On 26 June, the model shows a huge blob of dust over the entire Gulf of Mexico. On that day there is another blob over the eastern Caribbean, this one less dense than the one over the Gulf. Meanwhile, another dust blob is emerging from the coast of Africa.



The forecast ends on 28 June with dust across the entire southern state region and extending up the eastern seaboard passing off the coast in the middle-Atlantic states. We may eventually see this dust carried in the westerlies, back to Europe - maybe even curving south to Africa!



This is what it looks like in GOES East at 1730 UTC. Note that the light-toned area over the central Caribbean is sunglint. The dense dust and plume extending from the coast of Africa to the western Atlantic is unusual in my experience. It has maintained a coherent shape and it has suppressed convection over a huge area of the Atlantic.



You can see the entire loop at:

https://www.star.nesdis.noaa.gov/GOES/sector_band.php?sat=G16§or=taw&band=GEOCOLOR&length=72

Joe

Joseph M. Prospero
Professor Emeritus, Department of Atmospheric Sciences &
Rosenstiel School of Marine and Atmospheric Science, University of Miami
4600 Rickenbacker Causeway
Miami, FL
33149-1098
tel: 305-421-4159
cell: 786-512-4159