

July – August 2024 Saharan Dust Transport



Saharan Dust Transport

Column Dust Aerosol Optical Thickness (AOT)



GEOS-FP can model dust and other aerosol species – measured by Aerosol Optical Depth/Thickness (AOD/AOT) – with inputs from satellite (MODIS) and ground (AERONET) observations. The day shown here (July 20, 2024) saw Puerto Rico's skies turn orange due to high dust concentrations.



Aside from leading to the formation of tropical cyclones, tropical (or African easterly) waves can transport dust in the Saharan Air Layer across the Atlantic Ocean to the Americas. Summer 2024 has been very active for this, particularly from mid-July to mid-August, causing skies to turn orange over Puerto Rico, rain depositing dust in Florida, and multiple stations in the Dallas/Fort Worth, TX area to report their highest AQI in over 20 years. Though it does pose respiratory risks to the public, the dust does benefit marine life, who gain nutrients from the minerals contained in it.

GEOS Analysis
18 Jul 2024 15:00 GMT