After no measurable rainfall for the first 16 days of July 2018, GMAO meteorologists noted medium and long range forecasts that indicated a hemispheric upper level anomaly pattern that is conducive to long duration and major Middle Atlantic rainfall events.

This still image from July 24 is a snapshot of the GEOS FP analysis of total precipitable water that occurred each hour throughout the event.

Total precipitable water is the depth of water in a column of the atmosphere, if all the water in that column were precipitated as rain.