



Tornado/Landspout at Rio Piedras, San Juan Puerto Rico

Sunday March 26, 2017

Synoptic Overview

Surface low pressure north of Hispaniola induced a moist and convectively unstable air mass over Puerto Rico. The resulting southerly flow interacted with the island topography enhancing the low-level convergence along and downwind of the Cordillera Central. Scattered showers began to develop over the northern slopes of Puerto Rico early in the afternoon. One of these cells/showers collided with the sea breeze front over the southeast portions of San Juan giving way to a brief EF0 tornado/landspout near Villa Andalucia at Rio Piedras at 3 PM AST.

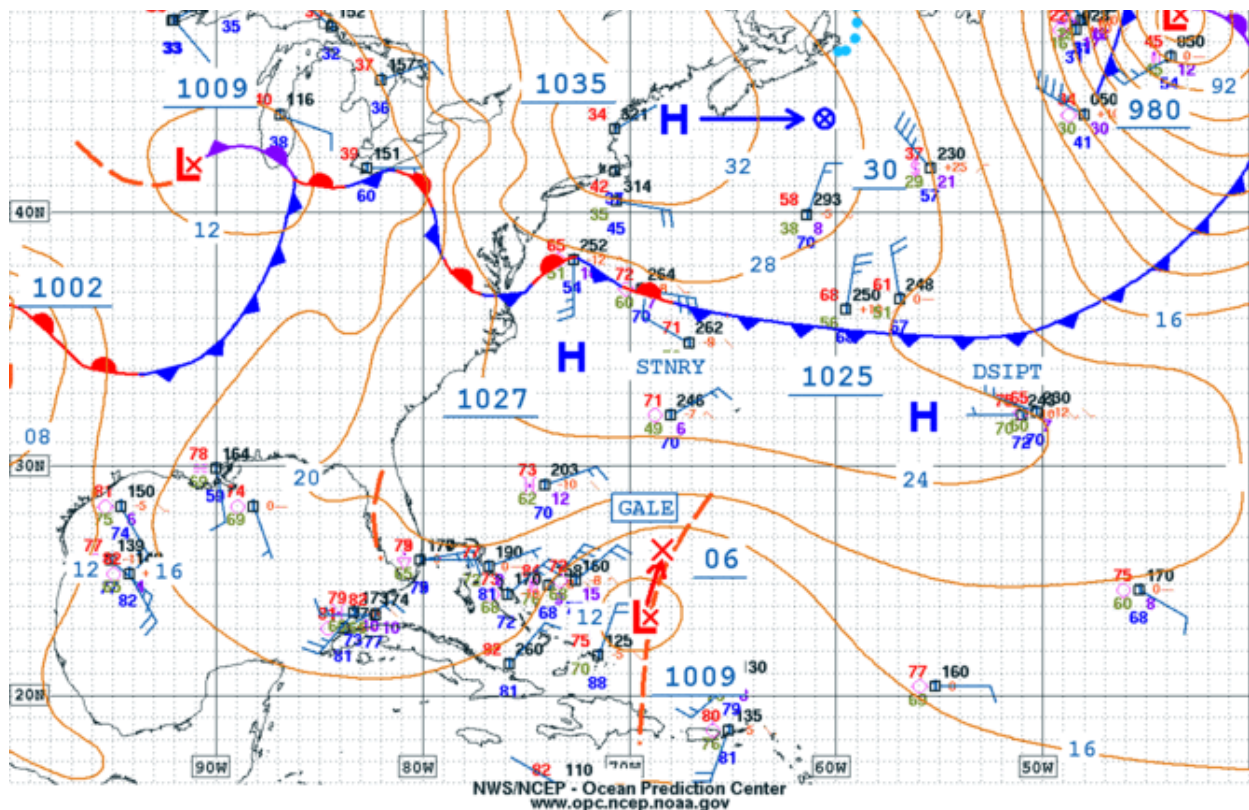


Figure 1: Atlantic Surface Analysis valid at 18Z March 26, 2017. Image Credit: NHC, WPC and OPC.

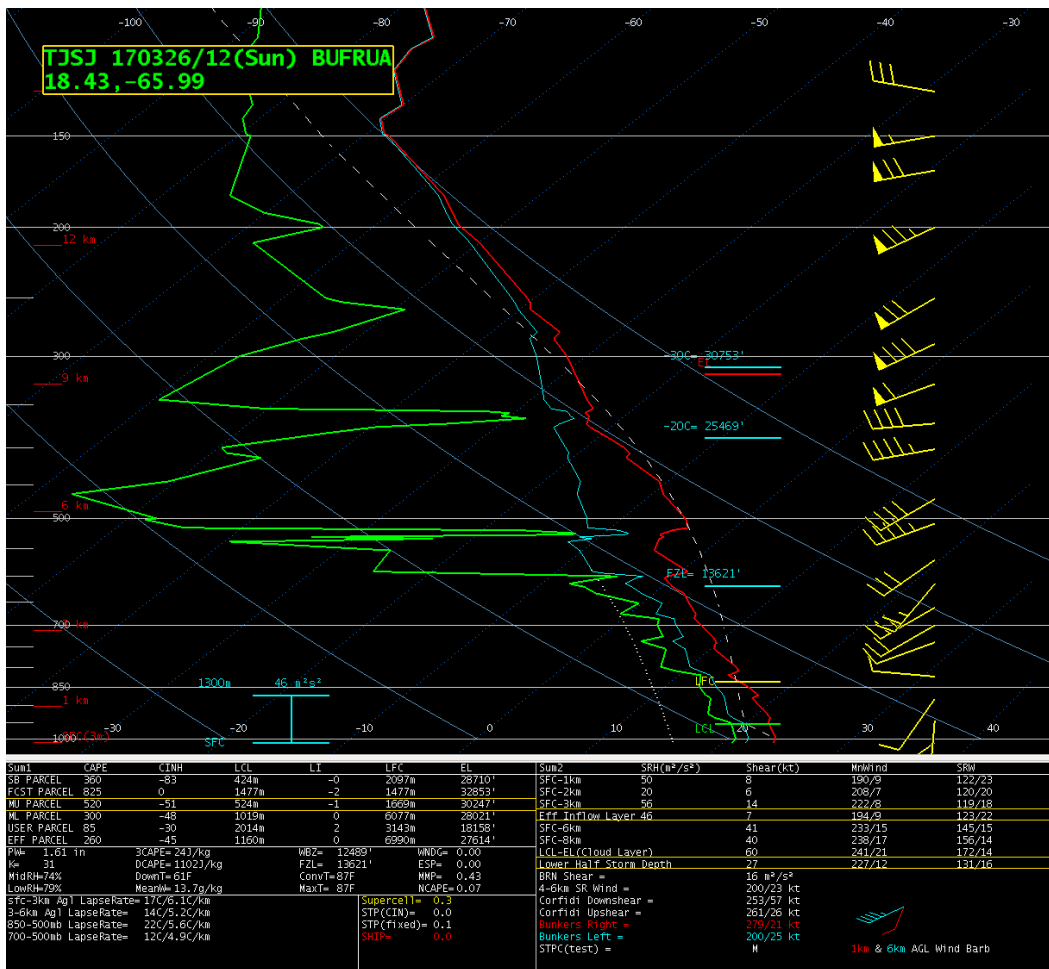


Figure 2: Morning sounding at San Juan. 12Z sounding showed some directional & speed shear below 700MB.

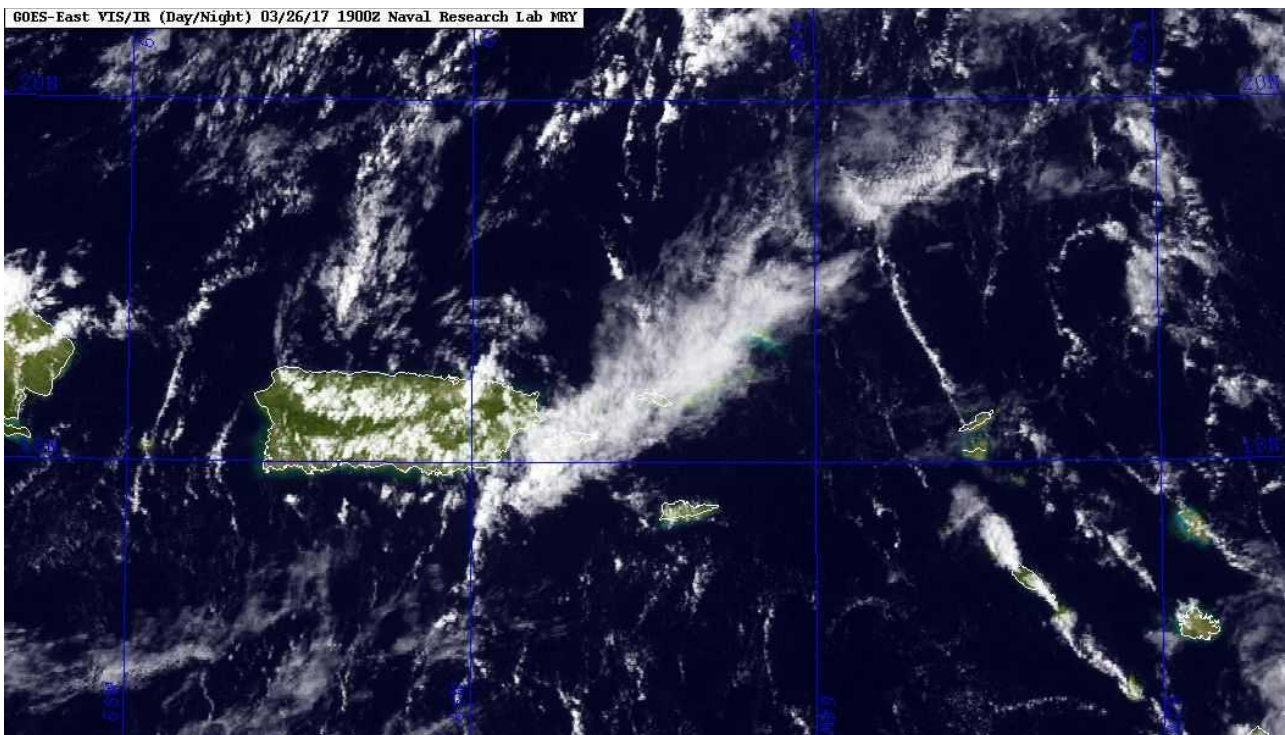


Figure 3: GOES-East imagery at 3 PM (AST). Image: Naval Research Lab (NRL).

Event Information

The event was classified as a landspout based on satellite and radar observations. A landspout is a tornado with a narrow, rope-like condensation funnel that forms while the cumulonimbus cloud is still growing and there is no rotating updraft - the spinning motion originates near the ground. In contrast, tornadoes that come from a supercell thunderstorm are the most common in United States, and often the most dangerous. A rotating updraft is a key to the development of a mesocyclone, and eventually a tornado ([NOAA NSSL](#)).

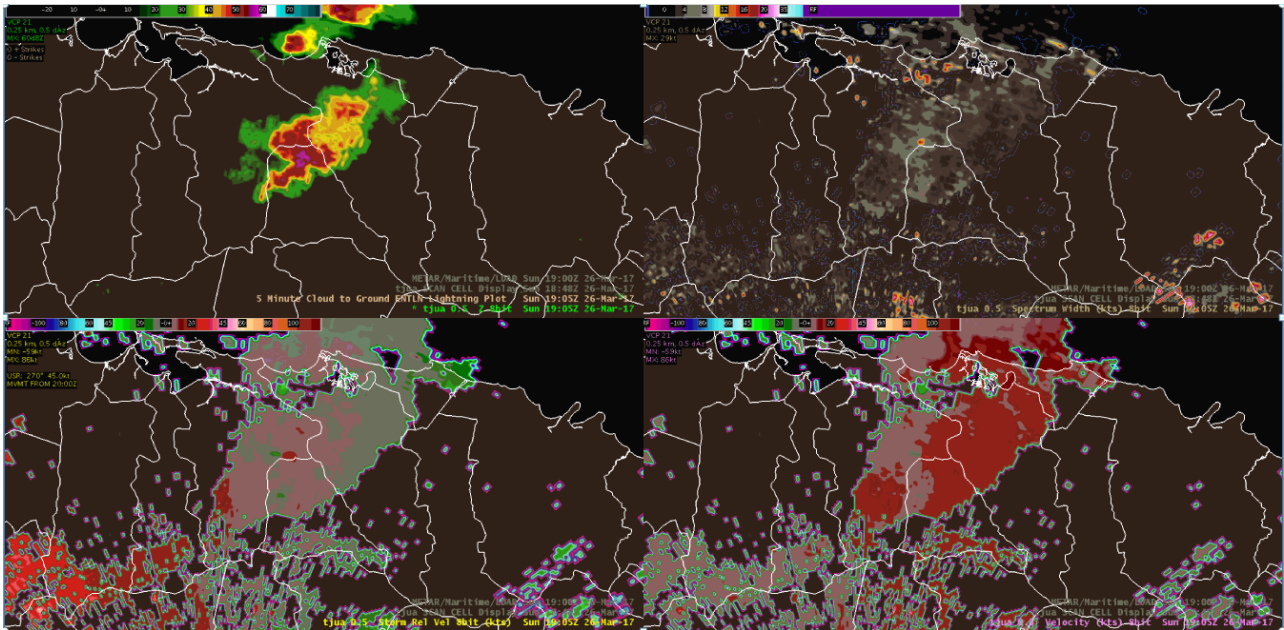


Figure 4: Radar Doppler from TJUA WSR-88D. Upper left: 0.5 Base Reflectivity, upper right: Spectrum Width, lower left: Storm Relative Velocity, lower right: Base Velocity.

An EF0 Tornado/landsipout with winds estimated around 60-85 MPH touched down between Villa Andalucia and Park Gardens, Rio Piedras near 3 PM AST. The tornado path extended around 1 km. Several trees and power lines were downed over cars and houses. One weak construction house was destroyed by the strong winds. No fatalities or injuries were reported.

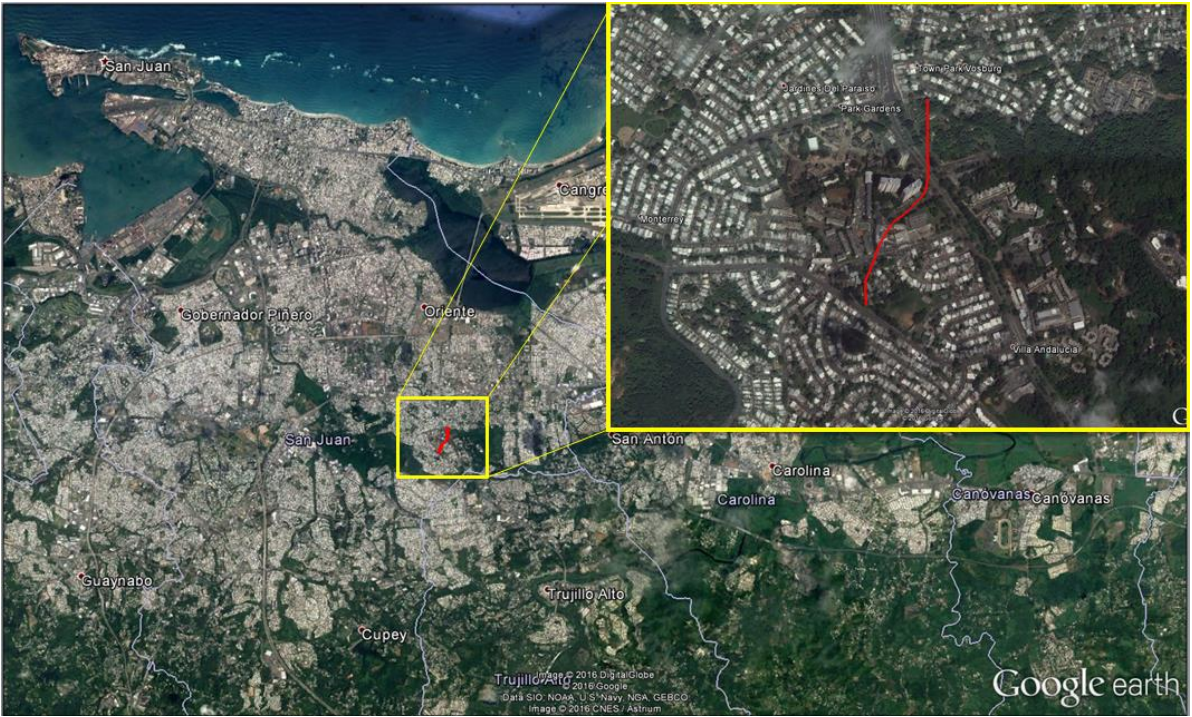


Figure 5: Tornado/Landspout path along the southeast portions of San Juan.



Figure 6: Damage associated with the strong winds at Villa Andalucia and Park Gardens, Rio Piedras.