



**Above:** Minor Damage from the Lower and Mid Rio Grande Valley due to 50+ mph wind gusts, January 16, 2016

## The Wind Came Sweeping Down the (RGV) Plain Rapidly Moving Pressure Systems Spawn 50 mph Winds, Jan. 16, 2016

One hallmark of an El Niño Winter is the frequent passage of subtropical jet stream disturbances across the southern tier of the United States. During much of January 2016, such systems careened across the southern Plains, remaining north of the Rio Grande Valley but producing periodic quick shifting winds from the south to the northwest. On several occasions, including January 9<sup>th</sup>, January 16<sup>th</sup>, and January 21<sup>st</sup>, downslope drying on said northwest winds increased speeds to 40 mph or higher in gusts and created “flash drought” conditions – where winds are much greater than 15 mph while surface humidity falls to 15 percent or lower, lasting for several hours. In each case, temperatures rose into the 70s, favorable for rapid spread of any wildfires that develop. And while a few fires indeed developed, none (fortunately) spread into hundreds of acres.

On January 16<sup>th</sup>, the difference between the departing low pressure in east Texas, which ultimately would move into north Florida and spawn a [deadly, large tornado near Tampa Bay](#) early on the 17<sup>th</sup>, and surface high pressure surging across northeast Mexico, brought prolonged 30 to 35 mph sustained winds with frequent gusts between 45 and 53 mph in Hidalgo, Cameron, and Willacy County during the afternoon. These winds produced pockets of minor damage to trees, power lines, traffic lights (above), and knocked out power to at least 10,000 residents across the region. The winds made an otherwise splendid mid-winter day difficult to walk or drive in.

The following are peak preliminary wind gusts across the region.

LOCATION	SPEED	TIME/DATE	PROVIDER
...BROOKS COUNTY...			
FALFURRIAS	39 MPH	1215 PM 01/16	<a href="#">AWOS</a>
...CAMERON COUNTY...			
PORT ISABEL-CAMERON AIRPORT	53 MPH	0155 PM 01/16	<a href="#">ASOS</a>
VALLEY INT`L AIRPORT	52 MPH	0126 PM 01/16	<a href="#">ASOS</a>
1 WNW LAGUNA VISTA	51 MPH	1223 PM 01/16	<a href="#">MESONET</a>
BROWNSVILLE INT`L AIRPORT	51 MPH	1252 PM 01/16	<a href="#">ASOS</a>
3 NNW LOS FRESNOS	38 MPH	0241 PM 01/16	<a href="#">MESONET</a>
SOUTH PADRE ISLAND	36 MPH	0155 PM 01/16	<a href="#">AWOS</a>
7 NNE BAYVIEW	34 MPH	0122 PM 01/16	<a href="#">MESONET</a>

...HIDALGO COUNTY...

MILLER INTERNATIONAL AIRPORT	48 MPH	0104 PM	01/16	<a href="#">ASOS</a>
EDINBURG	47 MPH	1255 PM	01/16	<a href="#">AWOS</a>
WESLACO	46 MPH	0135 PM	01/16	<a href="#">AWOS</a>
6 ESE HIDALGO	35 MPH	0145 PM	01/16	<a href="#">MESONET</a>
2 SE SAN MANUEL	34 MPH	1246 PM	01/16	<a href="#">MESONET</a>
1 NW MISSION	25 MPH	0109 PM	01/16	<a href="#">MESONET</a>

...JIM HOGG COUNTY...

4 WNW HEBBRONVILLE	40 MPH	0246 PM	01/16	<a href="#">MESONET</a>
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...MARINE REPORTING STATIONS...

55 ENE PORT MANSFIELD	49 MPH	0150 PM	01/16	BUOY
SOUTH PADRE ISLAND	48 MPH	1230 PM	01/16	<a href="#">MESONET</a>
19 NNW PORT MANSFIELD	47 MPH	0148 PM	01/16	<a href="#">MESONET</a>
1 SSE PORT ISABEL	43 MPH	1254 PM	01/16	BUOY
6 NNW SOUTH PADRE ISLAND	43 MPH	0100 PM	01/16	<a href="#">MESONET</a>

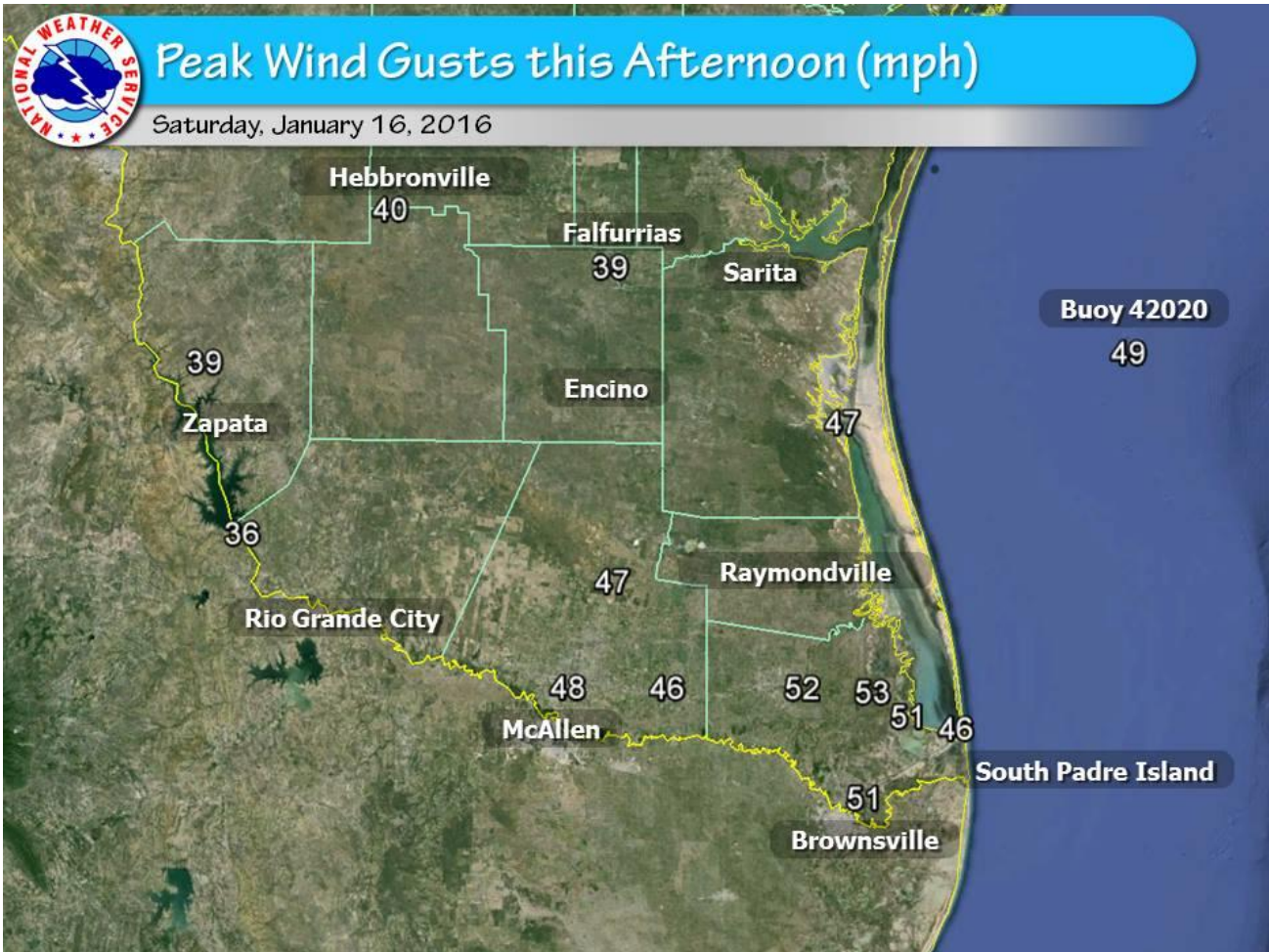
...STARR COUNTY...

FALCON	<a href="#">DAM</a>	36 MPH	1211 PM	01/16	<a href="#">MESONET</a>
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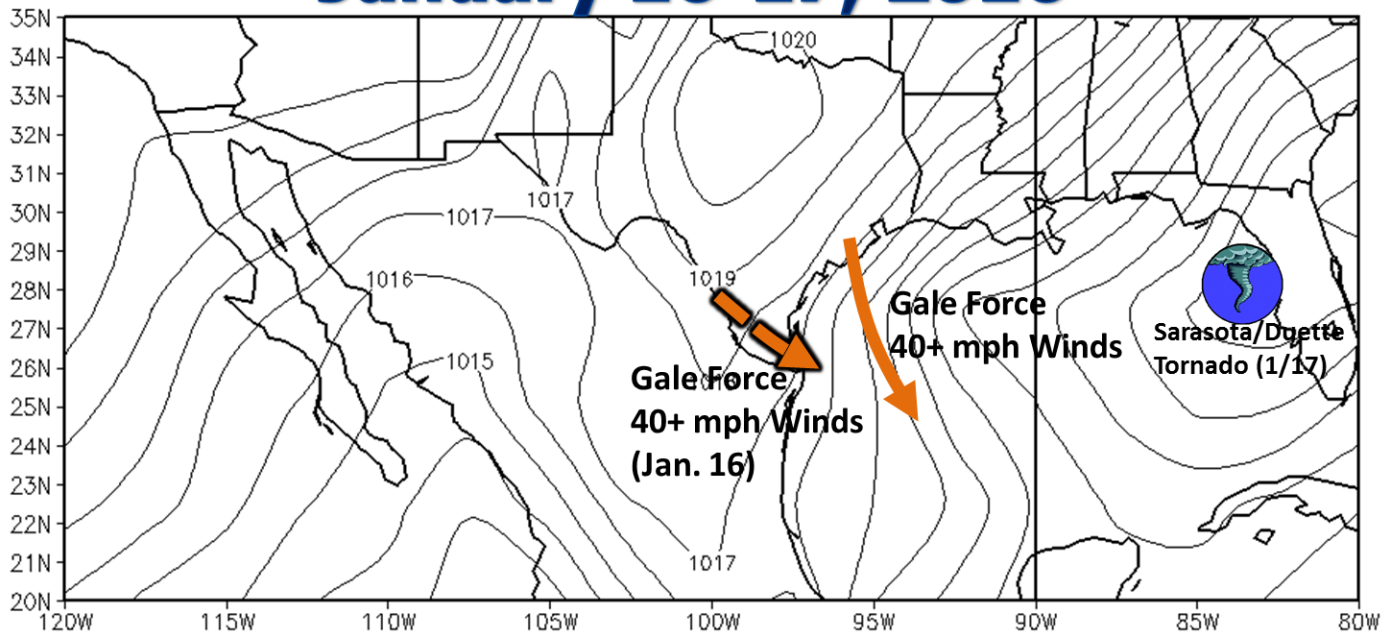
...ZAPATA COUNTY...

5 N ZAPATA	39 MPH	0115 PM	01/16	<a href="#">AWOS</a>
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OBSERVATIONS ARE COLLECTED FROM A VARIETY OF SOURCES WITH VARYING EQUIPMENT AND EXPOSURE. NOT ALL DATA LISTED ARE CONSIDERED OFFICIAL.



# Surface Pressure Pattern January 16-17, 2016



SEA LEVEL PRESSURE (mb) 01-DAY MEAN FOR:  
Sun JAN 17 2016

NCEP OPERATIONAL DATASET