

Two-panel radar display around the start of wind damage event near San Perlita (Willacy County). Large blue box is tornado warning area. Note the bright green (toward the radar, coming from the north) just east of Raymondville in the right panel.

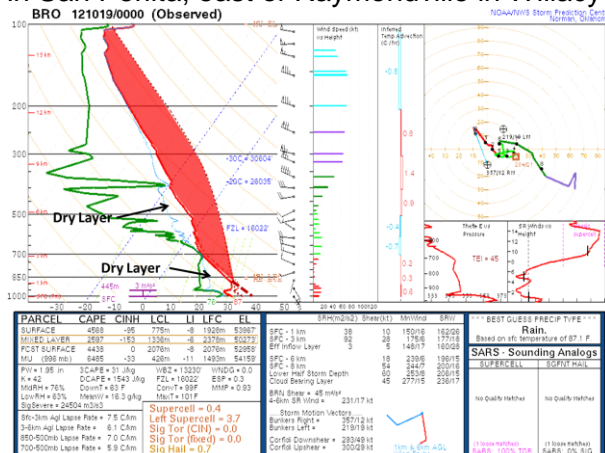
Supercell Thunderstorms Produce Wind Damage in Willacy, Hidalgo Counties

Hail Also Observed with Each Storm

Note: Storm information and synopsis is preliminary. Additional data will be provided in future updates.

Overview

A weak front, late afternoon sea breeze, and upper level jet stream energy combined with record, widespread heat across the Rio Grande Valley to fire numerous dangerous thunderstorms across the Lower Valley during the late afternoon and evening of October 18th, 2012. The record heat allowed the atmosphere to realize full potential instability (below left) and was triggered by the front. Damaging wind, large hail, and a possible brief tornado touchdown occurred; some areas received a welcome downpour which dropped more than an inch in a few spots. A storm survey conducted on October 19th revealed significant roof damage to one mobile home in San Perlita, east of Raymondville in Willacy County (below, right).

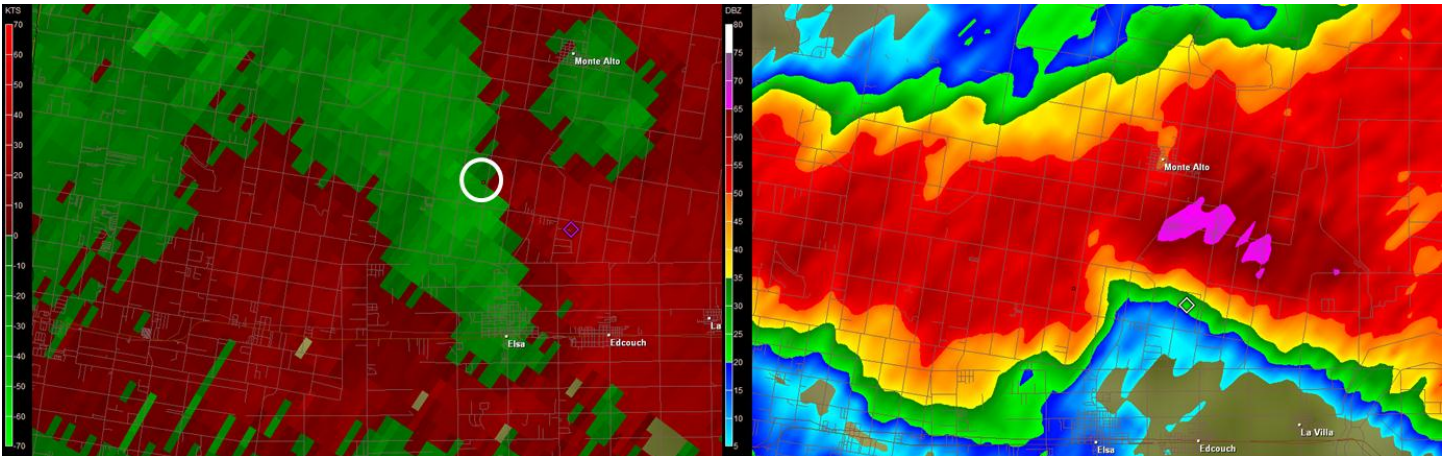


Above Left: Observed atmospheric sounding at Brownsville/SPI Int'l Airport, data collection started at 6 PM CDT. Maroon dashed line indicates general late afternoon temperatures away from the coast, allowing full potential energy (shaded area) to be realized. Dry layers assisted in creating downburst wind and large hail.

Outflow boundaries from the initial supercell in Willacy/Kenedy County triggered another supercell storm in eastern Hidalgo County between 6 and 630 PM CDT. This storm dropped quarter to golfball size hail, and lifted a metal roof from a cinderblock shed at one residence 3 miles north of Elsa (below). Preliminary wind speed estimate from this storm was 65 to 70 mph. Preliminary results from a storm survey, conducted on the 19th, and preliminary storm reports (from the 18th) follow the photos.



Damage to cinderblock storage building after metal roof was lifted by thunderstorm winds at approximately 617 PM on October 18th, 2012.



Left: Radar depiction of apparent wind shear axis moving across residence where metal roof was lifted from shed (above); image from 617 PM CDT. **Right:** radar reflectivity indicating up to 70 dbZ of return (pink/purple) just south of Monte Alto, at 613 PM CDT. High reflectivity extended above the freezing layer on October 18th. In this case, some of this reflectivity was likely large hail – golf ball size – reported in the area at around the same time.

PUBLIC INFORMATION STATEMENT
 NATIONAL WEATHER SERVICE BROWNSVILLE TX
 629 PM CDT FRI OCT 19 2012

...NWS DAMAGE SURVEY FOR 10/18/2012 THUNDERSTORM WIND EVENT...

.THUNDERSTORM WIND 1...

PEAK_WIND /E/: 70-80 MPH
 PATH_LENGTH /STATUTE/: 0.6 MILES
 PATH_WIDTH /MAXIMUM/: 35 YARDS
 FATALITIES: 0
 INJURIES: 0

START DATE: OCTOBER 18...2012
 START TIME: 5:28 PM CDT

START LOCATION: SAN PERLITA /WILLACY COUNTY/ TX
 START LAT/LON: 26.5010/-97.6472

END DATE: OCTOBER 18...2012
 END TIME: 5:33 PM CDT
 END LOCATION: SAN PERLITA /WILLACY COUNTY/ TX
 END LAT/LON: 26.4959/-97.6405

SURVEY SUMMARY:

A METEOROLOGIST FROM THE U.S. NATIONAL WEATHER SERVICE IN BROWNSVILLE SURVEYED DAMAGE FROM THURSDAY/S THUNDERSTORMS...WHICH OCCURRED IN AND AROUND THE SAN PERLITA AREA. THE DAMAGE WAS FOUND TO BE THE RESULT OF DAMAGING STRAIGHT LINE WINDS...WITH WIND SPEEDS ESTIMATED BETWEEN 70 AND 80 MPH.

DAMAGE APPEARED TO INITIALLY OCCUR TO THE ROOF OF A MOBILE HOME IN THE NORTHWESTERN PART OF SAN PERLITA. AT THIS LOCATION...ROOFING MATERIAL WAS REMOVED AND BLOWN TOWARD THE SOUTHEAST. AS THE SEVERE THUNDERSTORM MOVED SOUTHWARD...ADDITIONAL SMALL TREE LIMBS/BRANCHES WERE BLOWN DOWN ACROSS THE CITY. AN ADDITIONAL DAMAGE AREA WAS NOTED NEAR THE SAN PERLITA ISD COMPLEX...WHERE INTERVIEWS WITH ISD OFFICIALS INDICATED A POORLY ATTACHED DOOR WAS REMOVED TO THE DISTRICT/S BUS BARN. HIGH WINDS ALSO UPROOTED AN OAK TREE ON SCHOOL PROPERTY...WHICH RESULTED IN DAMAGE TO A CHAIN-LINK FENCE. NO FURTHER WIND DAMAGE WAS NOTED SOUTH OF THIS LOCATION.

NOTE:

THE INFORMATION IN THIS STATEMENT IS PRELIMINARY AND SUBJECT TO CHANGE PENDING FINAL REVIEW OF THE EVENT AND PUBLICATION IN NWS STORM DATA.

Preliminary storm reports follow. Note: Initial report information from San Perlita survey have been removed to eliminate confusion; survey data, while still preliminary, is more accurate.

PRELIMINARY LOCAL STORM REPORT...SUMMARY
 NATIONAL WEATHER SERVICE BROWNSVILLE TX
 405 PM CDT FRI OCT 19 2012

..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...
..DATE...MAG....	..COUNTY LOCATION..ST..	...SOURCE....
	..REMARKS..		

0400 PM	TSTM WND DMG	5 N RAYMONDVILLE	26.55N 97.78W
10/18/2012		WILLACY TX	OTHER FEDERAL

BORDER PATROL CHECKPOINT IN KENEDY COUNTY REPORTS MOTORIST OBSERVED WIND DAMAGE TO SIGN NORTH OF RAYMONDVILLE IN WILLACY COUNTY BETWEEN 4 PM CDT AND 5 PM CDT. MOTORIST ALSO OBSERVED TWO FUNNEL CLOUDS OR TORNADOES IN THE SAME LOCATION.

0534 PM	HAIL	SAN PERLITA	26.50N 97.64W
10/18/2012	E1.00 INCH	WILLACY TX	PUBLIC

NICKEL TO QUARTER SIZED HAIL AND SIGNIFICANT WIND DAMAGE TO A MOBILE HOME IN SAN PERLITA. EVENT TIME BASED ON RADAR.

0550 PM	FUNNEL CLOUD	7 S SAN PERLITA	26.40N 97.64W
10/18/2012		WILLACY TX	LAW ENFORCEMENT

GAME WARDEN REPORTED A LARGE FUNNEL CLOUD POSSIBLY

TOUCHING THE GROUND AT THE INTERSECTION OF FM 498 AND FM 1420.

0600 PM HAIL ELSA 26.30N 97.99W
10/18/2012 E1.75 INCH HIDALGO TX PUBLIC

PUBLIC REPORTED QUARTER TO GOLF BALL SIZE HAIL AT MONTE CRISTO AND FILEGONIA ROAD IN ELSA. HAIL FELL BETWEEN 6 AND 630 PM.

0600 PM TSTM WND DMG DONNA 26.17N 98.05W
10/18/2012 HIDALGO TX PUBLIC

PUBLIC REPORTED VIA INTERNET THAT LARGE-DIAMETER TREE WAS BLOWN DOWN IN DONNA NEAR THE INTERSECTION OF NORTH VICTORIA ROAD AND MILE 10.

0600 PM HAIL 6 W WILLAMAR 26.46N 97.72W
10/18/2012 E1.75 INCH WILLACY TX COUNTY OFFICIAL

JAILER WITH WILLACY COUNTY SHERIFFS DEPARTMENT REPORTED GOLF BALL SIZE HAIL FELL ON FM 490 6 MILES WEST OF WILLAMAR AT 6 PM CDT.

0615 PM HAIL 6 NNE ELSA 26.38N 97.96W
10/18/2012 E1.75 INCH HIDALGO TX PUBLIC

PUBLIC REPORTS VIA INTERNET THAT GOLFBALL SIZE HAIL FELL IN MONTE ALTO AT 615 PM CDT.

0625 PM TSTM WND DMG 2 E SEBASTIAN 26.34N 97.76W
10/18/2012 WILLACY TX AMATEUR RADIO

30 FOOT TALL TREE SPLIT IN HALF BY WINDS 2 EAST OF SEBASTIAN ON FM 2629.

0630 PM HAIL 6 NNE ELSA 26.38N 97.96W
10/18/2012 E1.00 INCH HIDALGO TX PUBLIC

PUBLIC REPORTS VIA INTERNET THAT QUARTER SIZE HAIL FELL AROUND 630 PM CDT ON THE NORTHEAST SIDE OF FM 88 IN THE MONTE ALTO AND DELTA LAKE AREA.

0640 PM HAIL ELSA 26.30N 97.99W
10/18/2012 E0.75 INCH HIDALGO TX PUBLIC

PENNY SIZED HAIL REPORTED BY PUBLIC IN ELSA.

0645 PM HAIL 5 NNE MERCEDES 26.21N 97.89W
10/18/2012 E1.00 INCH HIDALGO TX PUBLIC

PUBLIC REPORTED QUARTER SIZED HAIL AT THE INTERSECTION OF MILE 12 RD AND 491.

0715 PM TSTM WND DMG MCALLEN 26.22N 98.24W
10/18/2012 HIDALGO TX AMATEUR RADIO

CARPORT BLOWN INTO ADJACENT BUILDING BY THUNDERSTORM WINDS. NEARBY CARPORT ALSO DAMAGED AT HOUSTON AND 6TH.

0734 PM HEAVY RAIN EDINBURG 26.30N 98.16W
10/18/2012 E2.00 INCH HIDALGO TX PUBLIC

PUBLIC REPORTED WATER OVER THE CURBS IN EDINBURG NEAR
TRENTION AND 281. MORE THAN ONE INCH OF RAIN FELL IN A SHORT
PERIOD OF TIME IN THE AREA.