

April 2-3, 2013, Severe Storms

Three separate shortwave troughs, a slow moving cold front, and unstable conditions due to moist Gulf air near the surface combined to produce severe storms across South Central Texas on April 2 and 3, 2013. The first shortwave trough destabilized the atmosphere in the vicinity of the cold front over the Hill Country around 2:00 pm CDT on April 2nd. The result was fast development of scattered thunderstorms, a few of which became supercells and moved southeast. The strongest storm moved across southern Burnet County and into far western Travis County, and produced baseball-size hail at the intersection of Texas Highway 71 and U.S. Highway 281. These afternoon storms continued to move southeast and brought hail and heavy rain to the coastal plains between Austin and Houston. The second shortwave trough combined with air being lifted up the Sierra Madre mountains to produce a line of thunderstorms from the Big Bend south into Mexico by early evening on April 2nd. These storms merged into a mesoscale convective system (or MCS) which then moved across the entire area, bringing 1/2 to 2 inches of additional rain, small hail, and gusty winds to 45 mph during the late evening and overnight hours. A third shortwave trough brought a final line of thunderstorms across the area during the day on April 3rd, with additional reports of small hail, mainly in metro San Antonio.

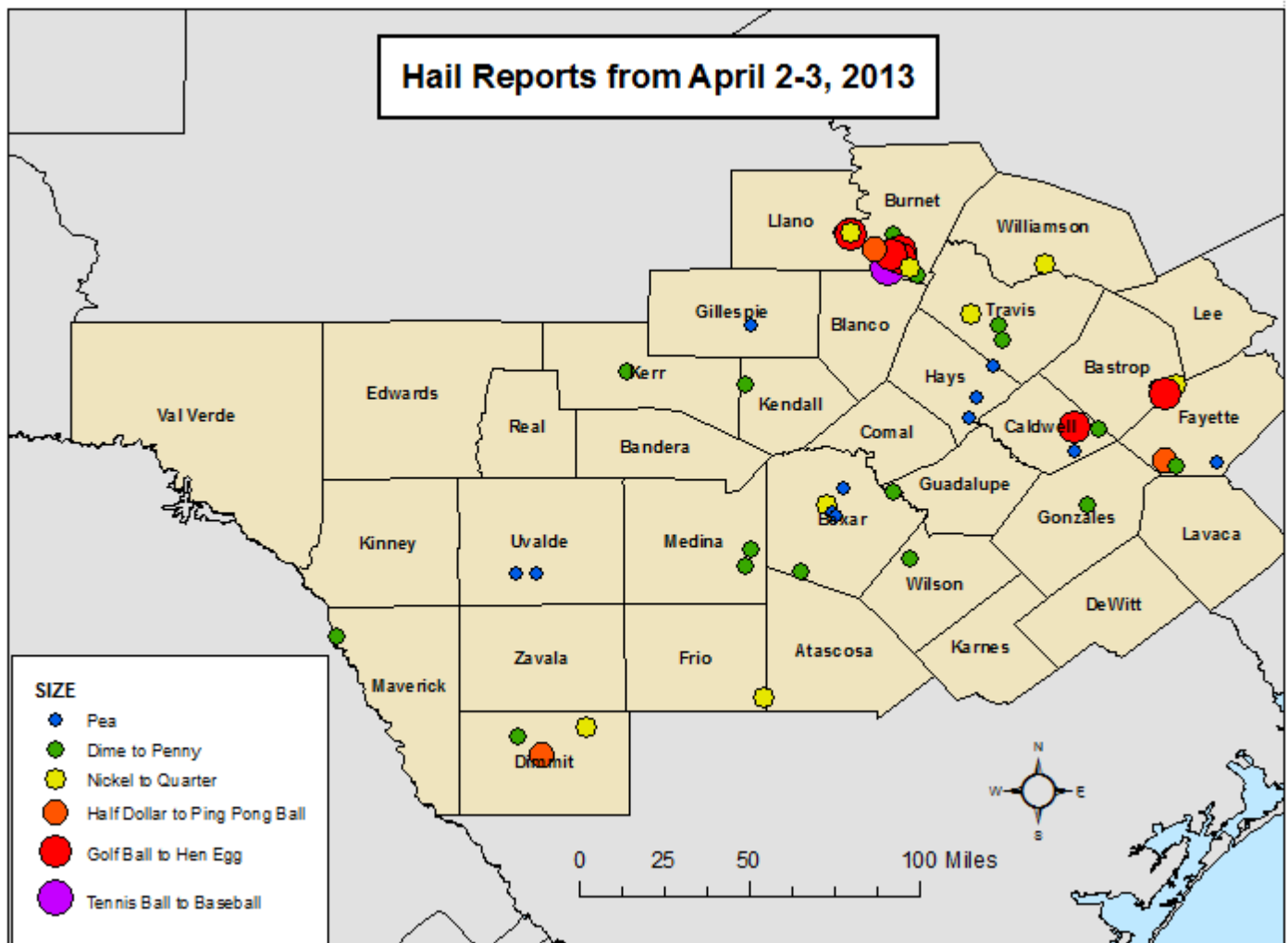
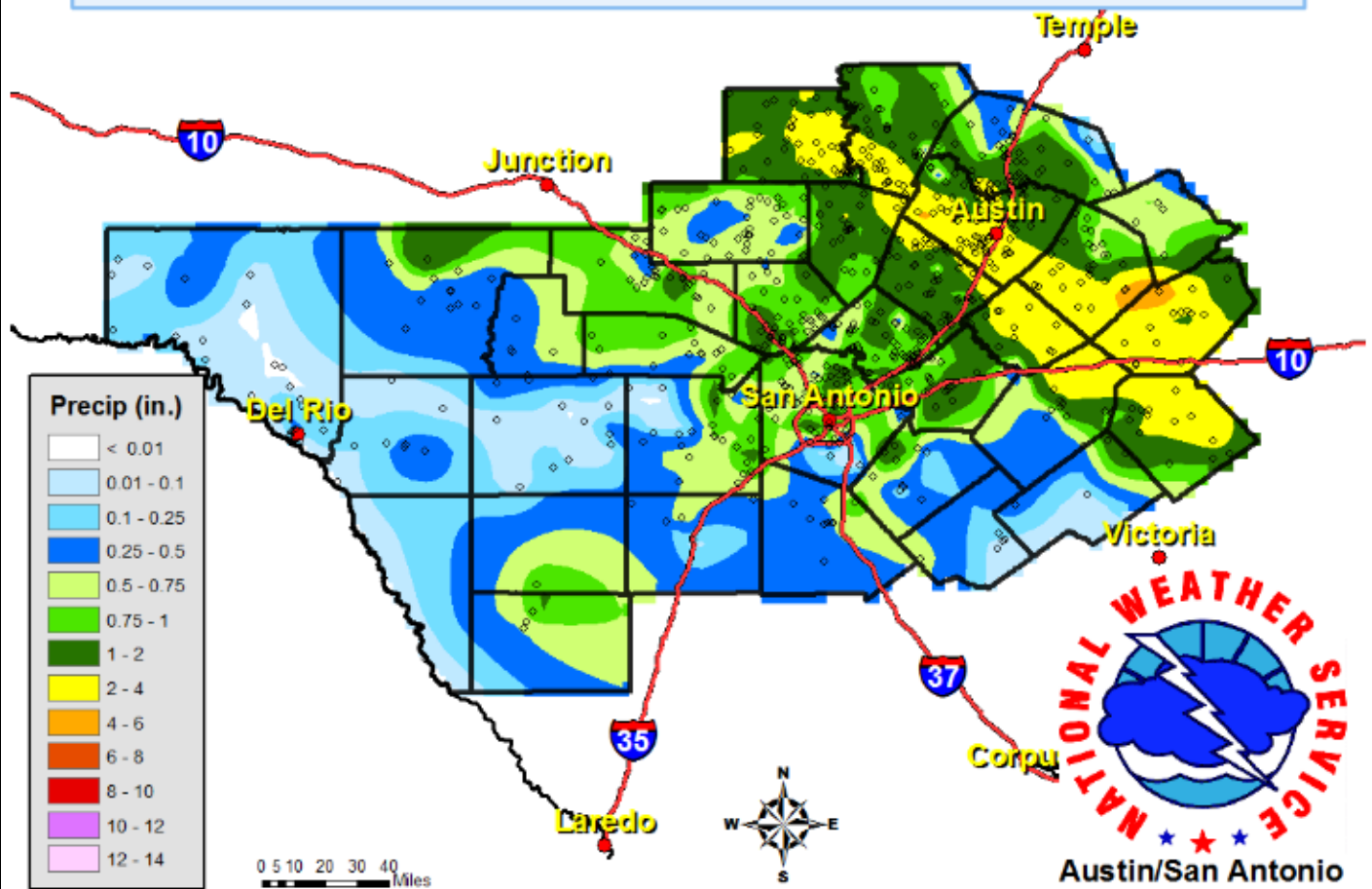


Figure 1. Map of hail reports received for April 2-3, 2013.

24Hr Rainfall Ending 7AM Apr 3, 2013



Disclaimer: Graphic should be treated as rainfall estimates and not used for decision purposes.
Data Sources: ASOS/AWOS Observations, Co-Op Observers, CoCoRaHS Observers & Local River Authority Gauges.
Created By: NWS Austin/San Antonio using ArcGIS.

Figure 2. Rainfall for the 24 hours ending at 7 am CDT on April 3, 2013.

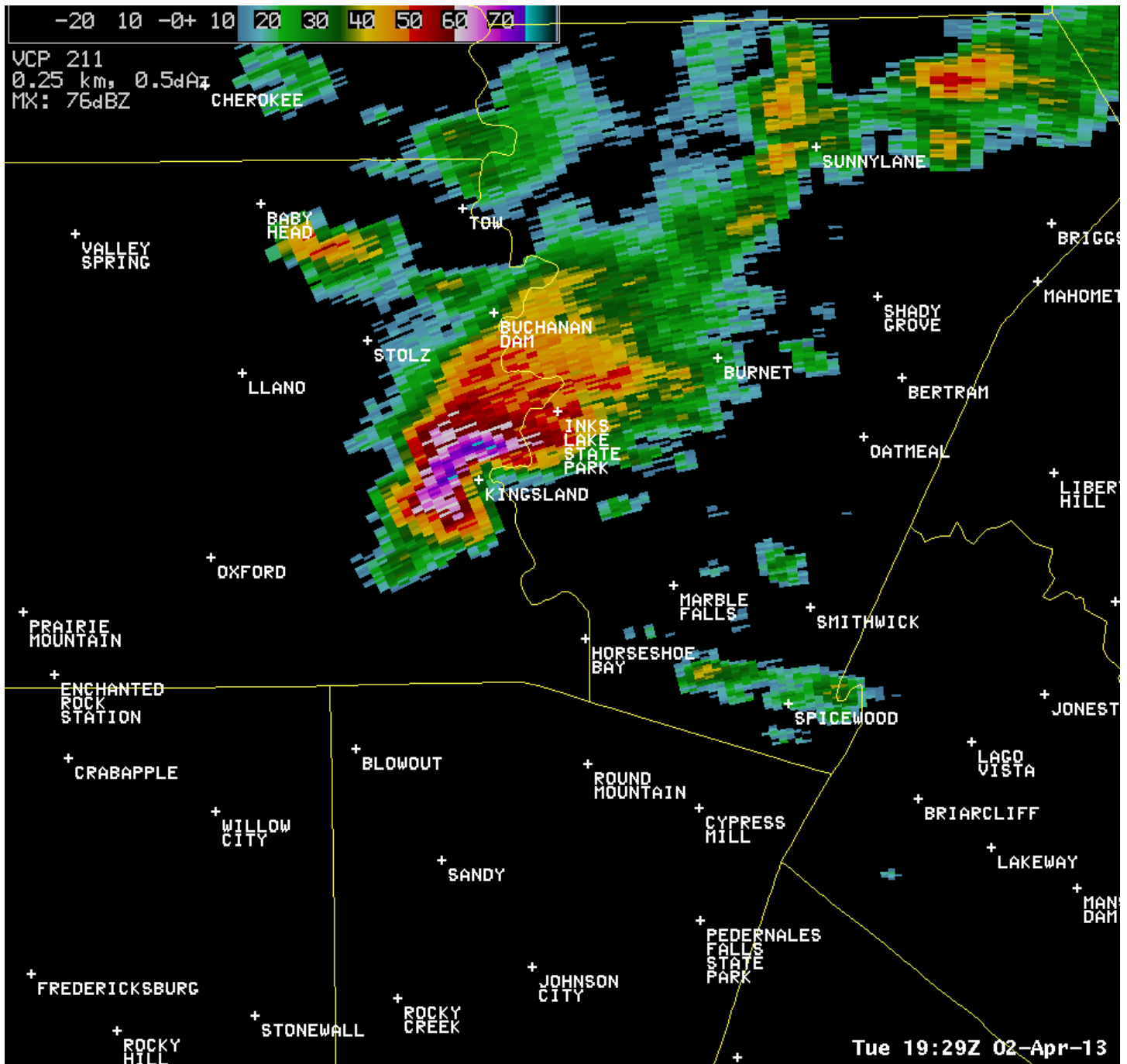


Figure 3. KEWX radar 0.5° elevation base reflectivity at 2:29 pm CDT on April 2, 2013. This storm would produce up to baseball-size hail and some of the impacts seen in the following pictures.



Figure 4. Hail damage to the side of a mobile home near Kingsland, TX, on April 2, 2013.



Figure 5. Hail piled up by rainfall runoff near Kingsland, TX, on April 2, 2013.

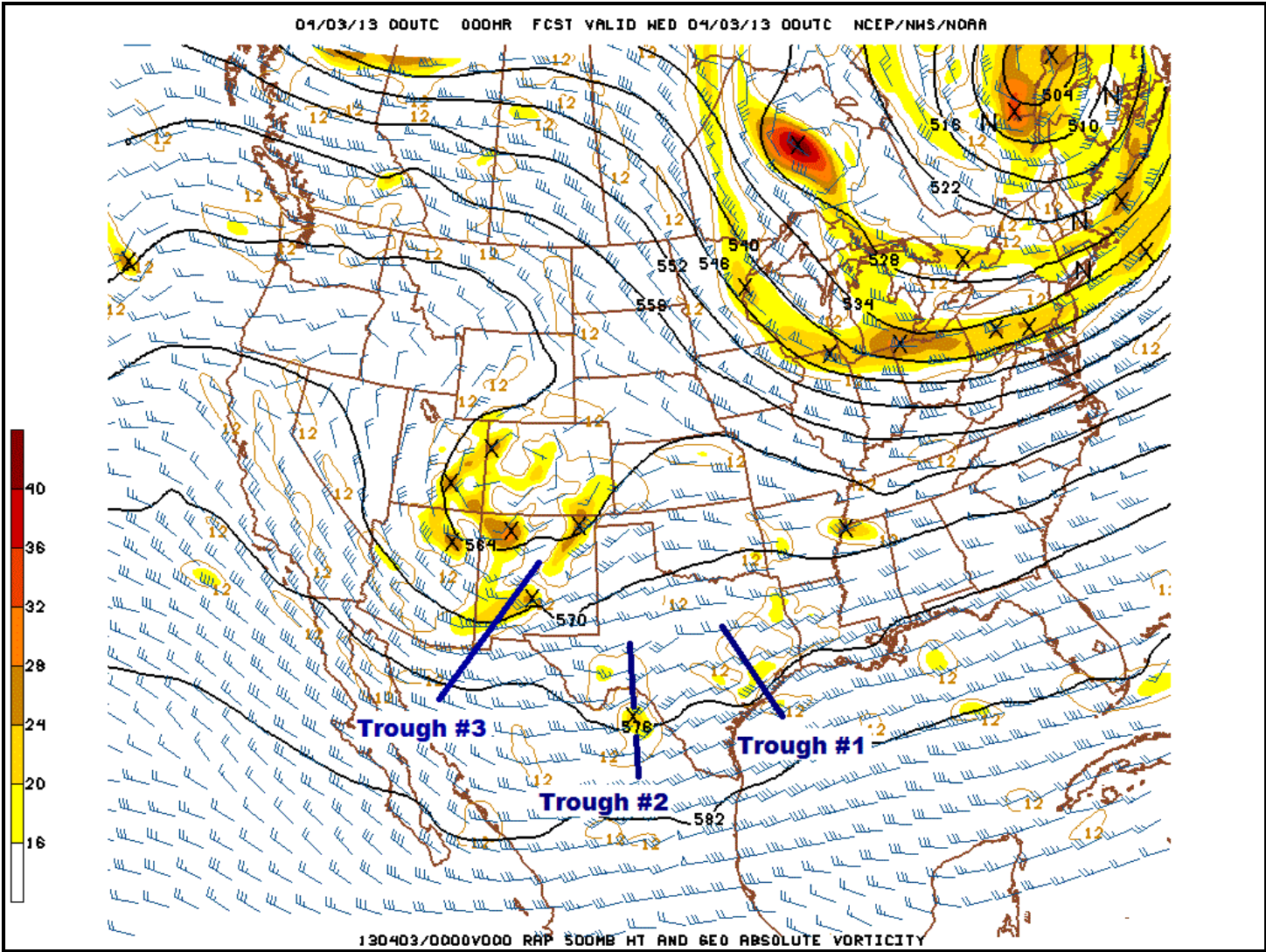


Figure 6. 500 hPa (middle atmosphere) chart at 7:00 pm CDT on April 2, 2013.

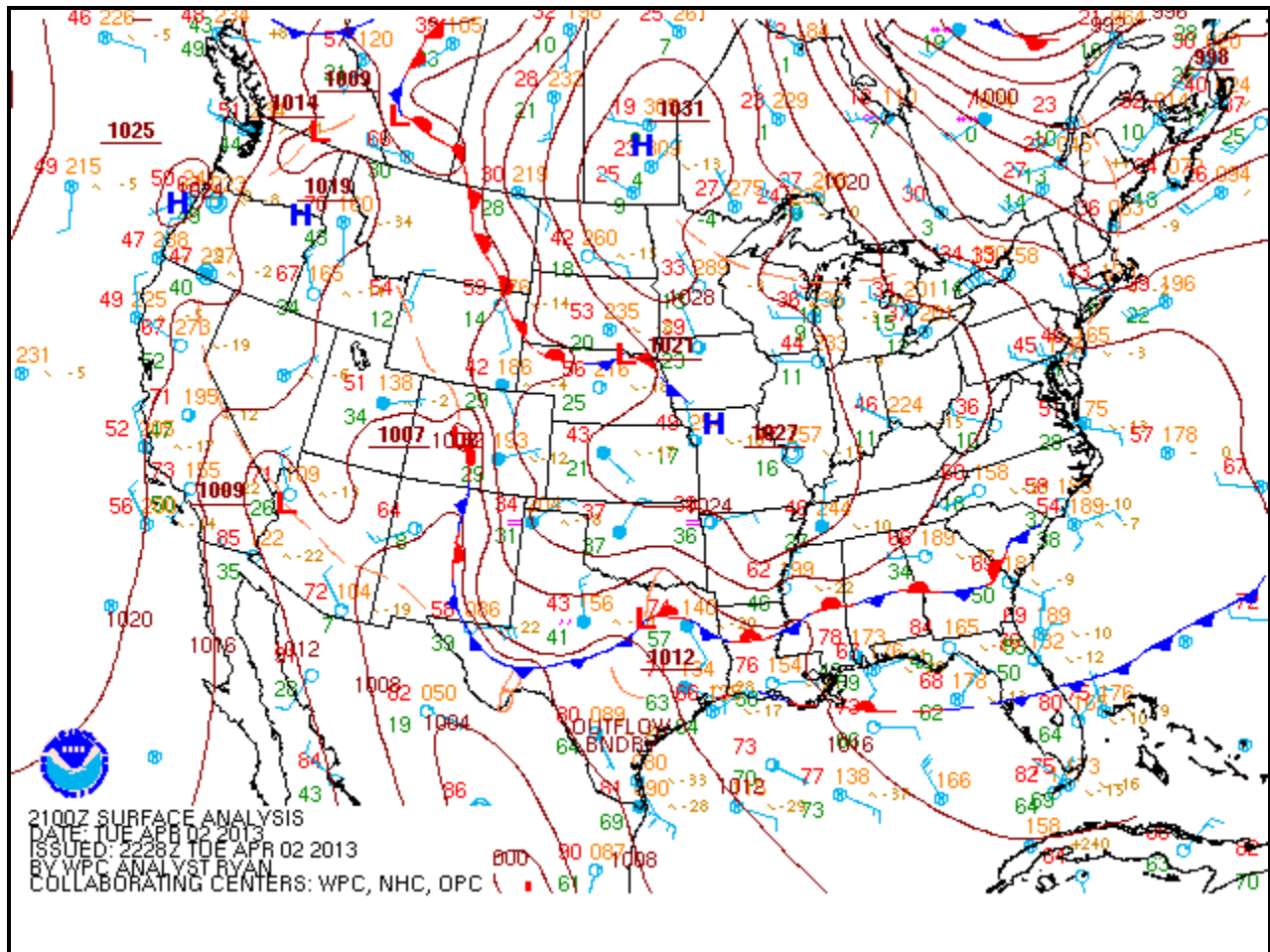


Figure 7. The 4:00 pm CDT April 2, 2013 surface map showing the cold front location.

**PRELIMINARY LOCAL STORM REPORT
NATIONAL WEATHER SERVICE AUSTIN/SAN ANTONIO TX**

..TIME...	..EVENT...	..CITY LOCATION...	..LAT.LON...
..DATE...	..MAG....	..COUNTY LOCATION..ST..	..SOURCE....
..REMARKS..			
0230 PM	HAIL	2 W KINGSLAND	30.66N 98.49W
04/02/2013	E0.70 INCH	LLANO TX	LAW ENFORCEMENT
HALF INCH TO NEAR DIME SIZE HAIL.			
0240 PM	HAIL	1 NE KINGSLAND	30.67N 98.45W
04/02/2013	M1.25 INCH	LLANO TX	PUBLIC
0250 PM	HAIL	1 S KINGSLAND	30.65N 98.45W
04/02/2013	M1.75 INCH	LLANO TX	PUBLIC
GOLFBALL SIZE HAIL..			

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	..REMARKS..		
0300 PM 04/02/2013	HAIL E0.75 INCH	5 N MARBLE FALLS BURNET	30.65N 98.27W TX PUBLIC
	HALF INCH TO PENNY SIZE HAIL.		
0310 PM 04/02/2013	HAIL M1.00 INCH	2 E MARBLE FALLS BURNET	30.58N 98.24W TX COCORAHS
	NICKEL TO QUARTER SIZE HAIL.		
0312 PM 04/02/2013	HAIL E2.75 INCH	4 SSE COTTONWOOD SHORES BURNET	30.51N 98.29W TX AMATEUR RADIO
	GOLF TO BASEBALL SIZE HAIL AT INTERSECTION OF HWYS 71 281		
0315 PM 04/02/2013	HAIL E1.50 INCH	MARBLE FALLS BURNET	30.58N 98.27W TX TRAINED SPOTTER
	15-18 MIN DURATION		
0320 PM 04/02/2013	HAIL M1.75 INCH	2 E MARBLE FALLS BURNET	30.58N 98.24W TX PUBLIC
	GOLFBALL SIZE HAIL.		
0320 PM 04/02/2013	HAIL M2.00 INCH	3 SE MARBLE FALLS BURNET	30.55N 98.24W TX COCORAHS
0325 PM 04/02/2013	HAIL E1.75 INCH	1 SSW MARBLE FALLS BURNET	30.57N 98.28W TX PUBLIC
0330 PM 04/02/2013	HAIL M1.00 INCH	1 S KINGSLAND LLANO	30.66N 98.45W TX COCORAHS
0334 PM 04/02/2013	HAIL E0.50 INCH	SPICEWOOD BURNET	30.48N 98.17W TX UNKNOWN
0335 PM 04/02/2013	HAIL E0.25 INCH	SMITHVILLE BASTROP	30.01N 97.16W TX EMERGENCY MNGR
	HEAVY RAINS FLOODING CLOSING A FEW ROADS IN SMITHVILLE		
0335 PM 04/02/2013	HAIL M1.00 INCH	5 E SMITHVILLE BASTROP	30.02N 97.07W TX PUBLIC
	35		
0350 PM 04/02/2013	HAIL E2.00 INCH	3 SE SMITHVILLE BASTROP	29.98N 97.12W TX LAW ENFORCEMENT
	HEN EGG SIZE HAIL.		

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	..REMARKS..		
0355 PM 04/02/2013	HAIL E1.00 INCH	3 NW SPICEWOOD BURNET	30.51N 98.20W TX CO-OP OBSERVER
	QUARTER SIZE HAIL...STRONG WINDS AND VERY HEAVY RAIN.		
0400 PM 04/02/2013	FLASH FLOOD	1 N MARBLE FALLS BURNET	30.59N 98.27W TX LAW ENFORCEMENT
	MANY ROADS IN MARBLE FALLS CLOSED... INCLUDING HIGHWAY 281 FOR A SHORT TIME.		
0400 PM 04/02/2013	HAIL M1.25 INCH	2 E GRANITE SHOALS BURNET	30.59N 98.35W TX COCORAHS
0425 PM 04/02/2013	HAIL M1.75 INCH	11 ESE LOCKHART CALDWELL	29.84N 97.50W TX LAW ENFORCEMENT
	CITY OF MCMAHAM		
0428 PM 04/02/2013	FLASH FLOOD	SMITHVILLE BASTROP	30.01N 97.16W TX EMERGENCY MNGR
	MULTIPLE RAOD CLOSURES IN SMITHVILLE DUE TO FLOODING		
0428 PM 04/02/2013	HAIL M0.70 INCH	9 SW ROSANKY CALDWELL	29.83N 97.40W TX EMERGENCY MNGR
	INTERSECTION OF HWYS 713 304		
0455 PM 04/02/2013	HAIL M0.88 INCH	1 NE BEE CAVE TRAVIS	30.32N 97.94W TX TRAINED SPOTTER
	NICKEL SIZE HAIL AND WIND GUSTS TO 45 MPH.		
0457 PM 04/02/2013	HEAVY RAIN M3.50 INCH	SMITHVILLE BASTROP	30.01N 97.16W TX UTILITY COMPANY
	3 HOUR RAINFALL		
0500 PM 04/02/2013	FLASH FLOOD	SMITHVILLE BASTROP	30.01N 97.16W TX LAW ENFORCEMENT
	NUMEROUS ROAD CLOSURES IN AND AROUND SMITHVILLE		
0506 PM 04/02/2013	TSTM WND DMG	NIEDERWALD HAYS	30.01N 97.74W TX STORM CHASER
	LARGE TREE BRANCHES DOWN NEAR HWY21		
0510 PM 04/02/2013	TSTM WND GST M77 MPH	4 W SUNSET VALLEY TRAVIS	30.23N 97.88W TX TRAINED SPOTTER

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	..REMARKS..		
0515 PM 04/02/2013	HAIL E0.25 INCH	10 ENE LULING CALDWELL TX	29.74N 97.50W COCORAHS
	15 MIN REPORT		
0515 PM 04/02/2013	HAIL M0.75 INCH	1 SE SUNSET VALLEY TRAVIS TX	30.21N 97.81W COCORAHS
0520 PM 04/02/2013	HEAVY RAIN M1.33 INCH	3 W HORSESHOE BAY LLANO TX	30.54N 98.40W COCORAHS
	1 HOUR RAINFALL		
0522 PM 04/02/2013	HAIL M0.50 INCH	2 SSW WEST LAKE HILLS TRAVIS TX	30.27N 97.82W TRAINED SPOTTER
0530 PM 04/02/2013	HAIL E0.88 INCH	3 ENE ROUND ROCK WILLIAMSON TX	30.53N 97.63W PUBLIC
0548 PM 04/02/2013	HEAVY RAIN M1.50 INCH	1 SE SUNSET VALLEY TRAVIS TX	30.22N 97.81W COCORAHS
	36 MIN RAINFALL		
0555 PM 04/02/2013	HEAVY RAIN M1.00 INCH	3 N AUSTIN TRAVIS TX	30.35N 97.75W COCORAHS
	30 MIN		
0608 PM 04/02/2013	HEAVY RAIN M2.90 INCH	5 NNW AUSTIN TRAVIS TX	30.37N 97.78W TRAINED SPOTTER
	45 MIN RAINFALL		
0625 PM 04/02/2013	HAIL M1.25 INCH	1 NW FLATONIA FAYETTE TX	29.70N 97.12W FIRE DEPT/RESCUE
	QUARTER TO HALF DOLLAR SIZE HAIL		
0640 PM 04/02/2013	HAIL M0.70 INCH	3 ESE FLATONIA FAYETTE TX	29.67N 97.07W CO-OP OBSERVER
0647 PM 04/02/2013	TSTM WND DMG	CEDAR CREEK BASTROP TX	30.08N 97.50W STORM CHASER
	WIND DAMAGE TO SOME STRUCTURES AND AWNINGS		
0700 PM 04/02/2013	HEAVY RAIN M2.59 INCH	3 SSW JOLLYVILLE TRAVIS TX	30.41N 97.77W CO-OP OBSERVER
	445 PM - 700 PM		

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0740 PM 04/02/2013	HEAVY RAIN M2.54 INCH	6 SW BASTROP BASTROP	30.04N 97.36W COCORAHS
	4 HOUR TOTAL		
0745 PM 04/02/2013	HEAVY RAIN M3.05 INCH	12 WSW ROSANKY CALDWELL	29.86N 97.47W COCORAHS
	4 HOUR RAINFALL		
0910 PM 04/02/2013	HAIL M0.70 INCH	QUEMADO MAVERICK	28.95N 100.63W PUBLIC
1034 PM 04/02/2013	HAIL E0.25 INCH	FREDERICKSBURG GILLESPIE	30.27N 98.87W TRAINED SPOTTER
	VERY HEAVY RAIN WITH PEA HAIL		
1045 PM 04/02/2013	HAIL M1.00 INCH	CRYSTAL CITY ZAVALA	28.69N 99.83W LAW ENFORCEMENT
1046 PM 04/02/2013	HAIL M0.70 INCH	CARRIZO SPRINGS DIMMIT	28.53N 99.86W PUBLIC
	LOTS OF HAIL NOTHING LARGER THAT A DIME		
1055 PM 04/02/2013	HAIL M1.25 INCH	ASHERTON DIMMIT	28.45N 99.76W PUBLIC
1103 PM 04/02/2013	HAIL E1.00 INCH	BIG WELLS DIMMIT	28.57N 99.57W PUBLIC
1110 PM 04/02/2013	HEAVY RAIN M1.00 INCH	1 SSE CASTLE HILLS BEXAR	29.51N 98.51W NWS EMPLOYEE
	40 MIN RAINFALL		
1115 PM 04/02/2013	HAIL M0.88 INCH	1 N BALCONES HEIGHTS BEXAR	29.51N 98.55W PUBLIC
1119 PM 04/02/2013	HAIL M0.25 INCH	2 ESE BALCONES HEIGHTS BEXAR	29.48N 98.53W TRAINED SPOTTER
1124 PM 04/02/2013	HAIL M0.25 INCH	1 ESE HILL COUNTRY VILL BEXAR	29.58N 98.48W TRAINED SPOTTER
1130 PM 04/02/2013	HAIL M0.50 INCH	1 NW SCHERTZ GUADALUPE	29.56N 98.27W AMATEUR RADIO
1155 PM 04/02/2013	HAIL E0.25 INCH	1 NW BUDA HAYS	30.10N 97.85W LAW ENFORCEMENT
1157 PM 04/02/2013	HAIL E0.25 INCH	1 W SAN MARCOS HAYS	29.88N 97.95W TRAINED SPOTTER

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	..REMARKS..		
1200 AM 04/03/2013	HAIL E0.25 INCH	4 SW KYLE HAYS	29.96N 97.92W COCORAHS
1240 AM 04/03/2013	HAIL M0.50 INCH	GONZALES GONZALES	29.51N 97.45W COCORAHS
0120 AM 04/03/2013	HAIL M0.25 INCH	1 NNE SCHULENBURG FAYETTE	29.69N 96.90W COCORAHS
0432 AM 04/03/2013	HEAVY RAIN M3.32 INCH	2 NE LAKEWAY TRAVIS	30.39N 97.96W COCORAHS
	24 HOUR TOTAL		
0536 AM 04/03/2013	HEAVY RAIN M1.54 INCH	5 WNW WIMBERLEY HAYS	30.02N 98.18W COCORAHS
	24 HOUR TOTAL		
0542 AM 04/03/2013	HEAVY RAIN M4.51 INCH	4 SW BRIARCLIFF TRAVIS	30.36N 98.09W MESONET
	24 HOUR TOTAL		
0544 AM 04/03/2013	HEAVY RAIN M3.53 INCH	5 SE CISTERN FAYETTE	29.77N 97.16W MESONET
	24 HOUR TOTAL		
0545 AM 04/03/2013	HEAVY RAIN M3.38 INCH	4 ESE CYPRESS MILL BLANCO	30.38N 98.19W MESONET
	24 HOUR TOTAL		
0545 AM 04/03/2013	HEAVY RAIN M3.00 INCH	5 W SPICEWOOD BURNET	30.48N 98.25W MESONET
	24 HOUR TOTAL		
0838 AM 04/03/2013	HEAVY RAIN M6.30 INCH	9 E SMITHVILLE FAYETTE	30.01N 97.01W COCORAHS
0845 AM 04/03/2013	HAIL M0.75 INCH	4 W HUNT KERR	30.07N 99.40W BROADCAST MEDIA
0934 AM 04/03/2013	HAIL M0.50 INCH	3 N COMFORT KENDALL	30.02N 98.90W COCORAHS
0943 AM 04/03/2013	HAIL M0.25 INCH	UVALDE UVALDE	29.22N 99.78W TRAINED SPOTTER
0951 AM 04/03/2013	HAIL M0.25 INCH	5 W UVALDE UVALDE	29.22N 99.87W LAW ENFORCEMENT
1117 AM 04/03/2013	HAIL M0.70 INCH	2 S CASTROVILLE MEDINA	29.32N 98.87W CO-OP OBSERVER

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	..REMARKS..		
1144 AM 04/03/2013	HAIL M0.50 INCH	7 N DEVINE MEDINA	29.25N 98.90W TX PUBLIC
1152 AM 04/03/2013	HAIL M0.25 INCH	SAN ANTONIO BEXAR	29.46N 98.51W TX TRAINED SPOTTER
	NEAR HILDEBRAND AND BROADWAY		
1155 AM 04/03/2013	HAIL E0.50 INCH	SOMERSET BEXAR	29.23N 98.66W TX PUBLIC
1228 PM 04/03/2013	HAIL M0.75 INCH	7 SW LA VERNIA WILSON	29.28N 98.20W TX PUBLIC