

Above: Sedans submerged in floodwaters in/near the City of Zapata, Texas, early on August 21, 2016. Photos courtesy of Zapata County Sheriff's Office.

## **The Rain Fell Mainly on the Rio Grande Plain Two Weekends of Torrents Finish Off the Dry Soils Northwest of the RGV**

### **August 13<sup>th</sup>/14<sup>th</sup> and 21<sup>st</sup> Events Drop Nearly a Foot of Rainfall in Zapata County**

ZAPATA, Texas, August 21 – A slow moving thunderstorm system developed across the Rio Grande Plains and South Texas Brush Country just prior to midnight on August 20<sup>th</sup>, and proceeded to drop an estimated 5 to 8 inches of rain from Zapata through Escobas, mostly along and north of State Highway 16, during the pre-dawn hours of August 21<sup>st</sup>. The torrents, falling over a 3 to 6 hour period, proved too much for poor drainage locations and rapidly swelling arroyos/streams, flooding a number of vehicles and requiring six known swift water rescues, including from vehicles shown above in Zapata. Standing water levels reached 3 feet on some roads, and creeks that exceeded their banks left between 1 and 2 feet of fast flowing water nearby. We praise the heroes of the Zapata County Fire Department; in one rescue, a driver was within moments of injury or worse as flowing water had risen up to his neck before he was pulled to safety.

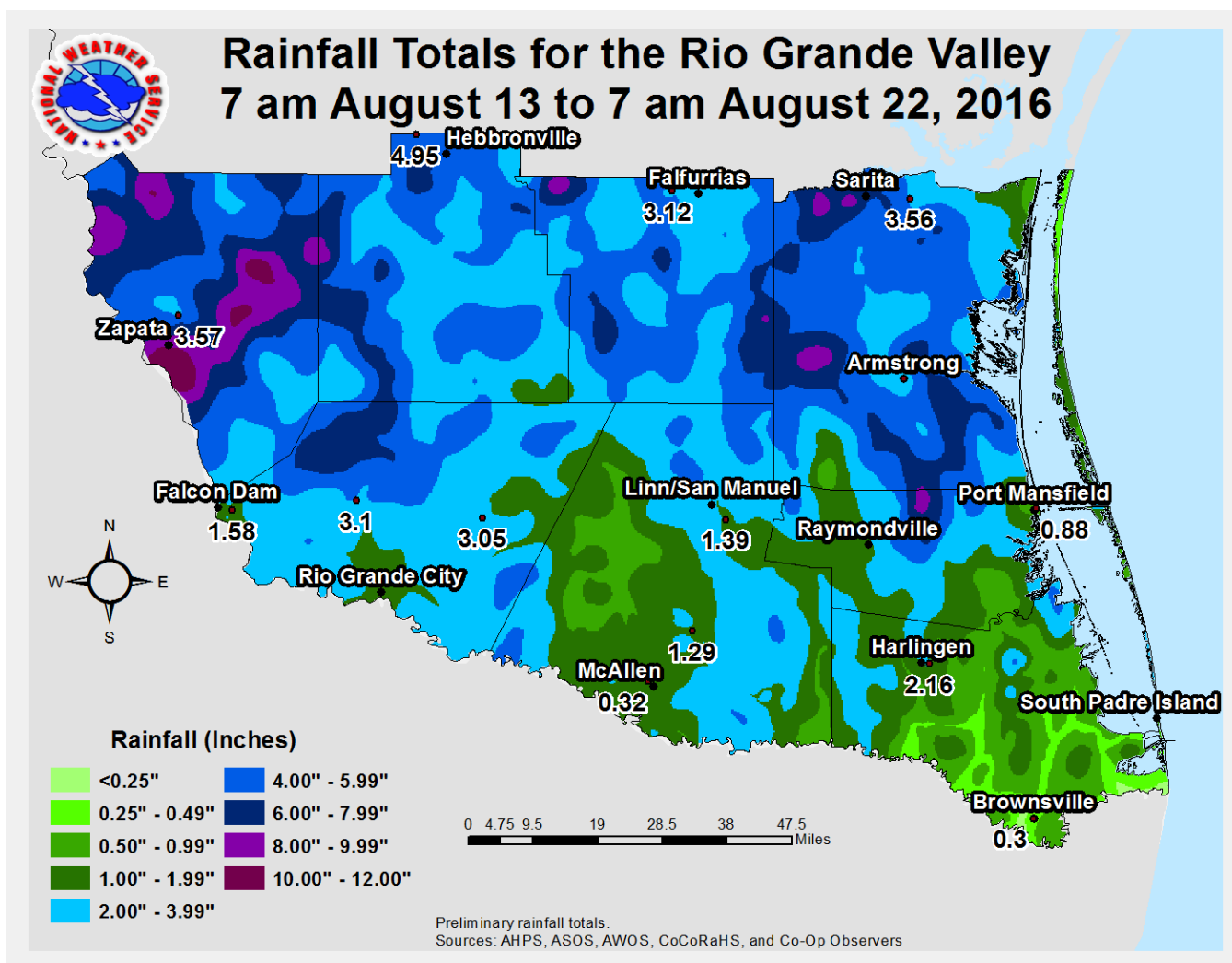
#### **Helpful Rain to Start**

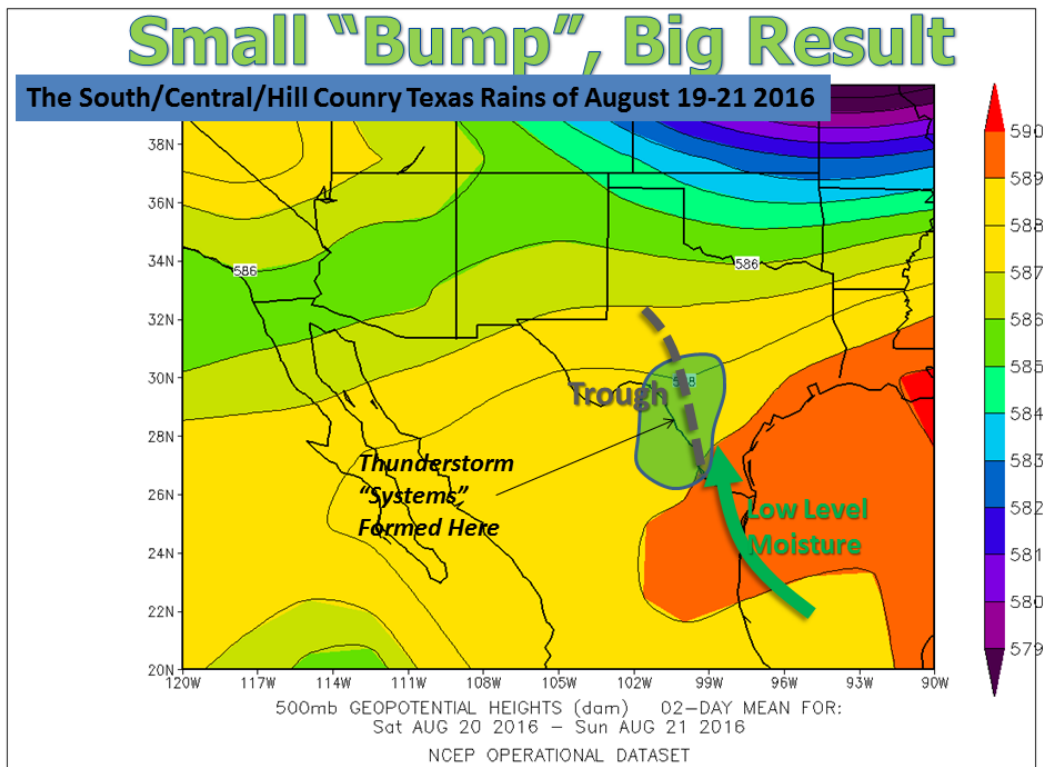
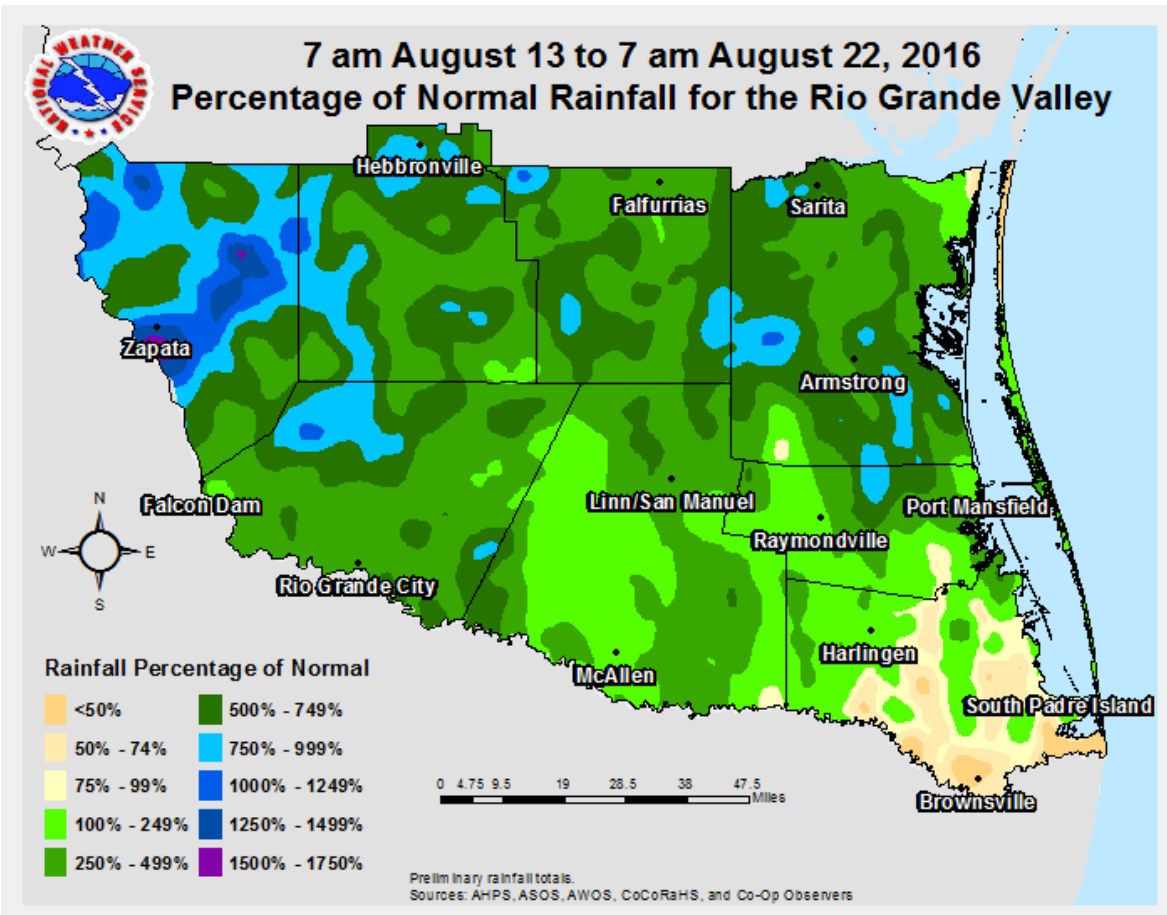
After a [record to near-record hot July](#) and a continuation of said heat/low rainfall into mid-August, the back-side of a westward moving upper level disturbance – the same one that created [unprecedented flooding in south Louisiana](#) – dropped “manna” in the form of 3 to 6 inches of rainfall over very thirsty ranches in parts of Starr, Jim Hogg, and Zapata County during the afternoon and evening of August 13<sup>th</sup>. Similar events over populated

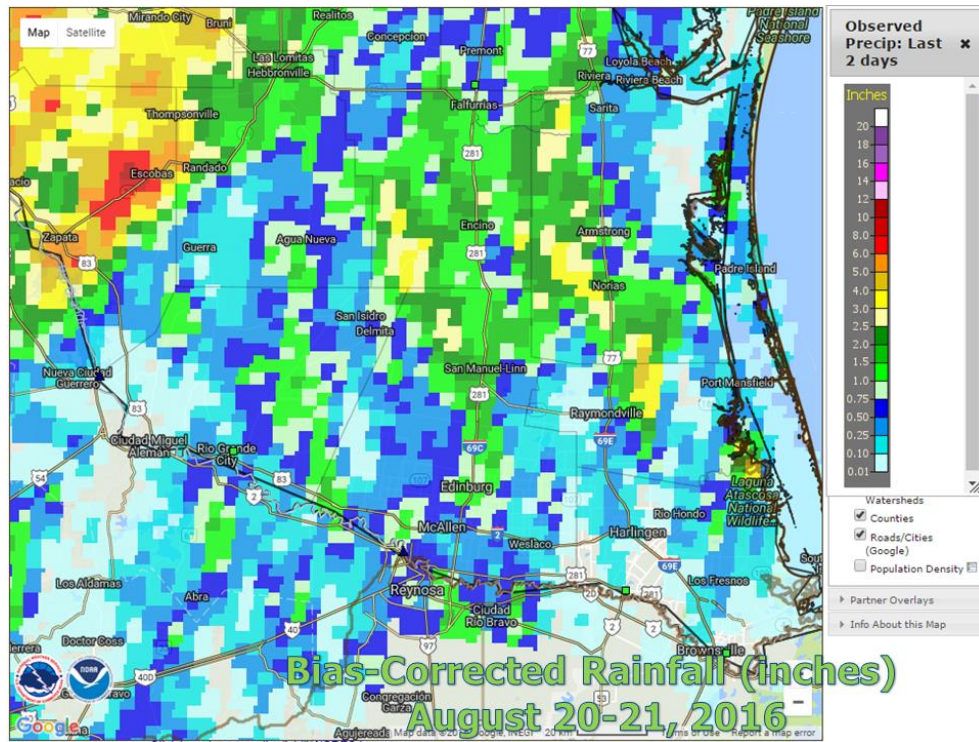
locations or previously wet soils typically produce some level of flooding, but for this case, ranchers asked about the impact shared the same sentiment: They were ‘dancing’ over the necessary water for livestock and vegetation alike. All rains soaked nicely into the soil, and helped the process of re-greening pastures and rangelands once again.

**Harmful Rain to Finish**

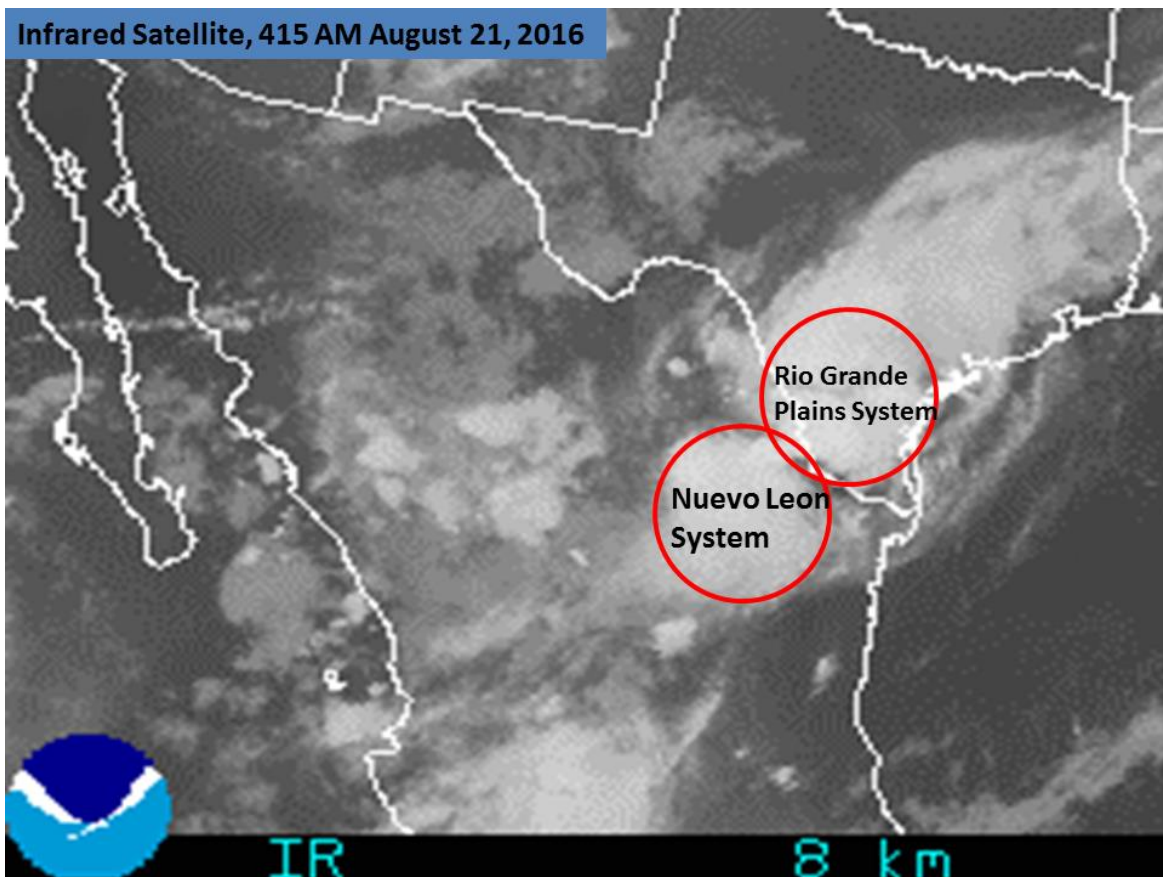
The arrival of a spring-like upper level disturbance *from the west* – highly unusual in south/central Texas in August – helped lift tropical moisture into several thunderstorm “systems” typically seen in spring and sometimes later in autumn from the Big Bend region through South Central Texas on August 20<sup>th</sup>. The final systems formed over the Rio Grande Plains of Texas and along the Sierra Madre near Monterrey, Mexico, late on the 20<sup>th</sup> and early on the 21<sup>st</sup>. The Rio Grande Plains event brought repeating torrential rain-producing thunderstorms that focused on central/northern Zapata County and northwest Jim Hogg County, primarily along and north of State Highway 16. Farther south, more helpful than harmful rains affected parts of Starr County, and a “welcome surprise” of generally 0.25 to 1” on average (though locally up to 4 or more inches in rural pockets of Brooks, Willacy, and Kenedy County) fell across the rest of Deep South Texas and the Rio Grande Valley aided by the low pressure system formed by the aforementioned thunderstorm systems.







**Above:** *Top* – the weak May-like trough of low pressure that activated the atmosphere in south Texas to the tune of heavy rainfall, in some places more than a foot. This led to widespread flash flooding near Del Rio on the 20<sup>th</sup>, and from south of San Antonio through the Rio Grande Plains on the 21<sup>st</sup>. South Texas rivers and creeks such as the San Antonio River and the Rio Grande north of Laredo quickly surged above flood stage. *Bottom:* Rainfall from 7 AM Aug. 20<sup>th</sup> through 7 AM Aug. 22<sup>nd</sup>. Welcome rainfall covered parts of Brooks and Kenedy County, and some of the populated locations in Hidalgo County were happily surprised.



**Above:** Two thunderstorm systems early Sunday, August 21, 2016. Each helped to disrupt the atmospheric flow enough to bring enough moisture farther east into parts of the Rio Grande Valley to make for an again, off again wet Sunday. Once the systems dissipated completely, the dry hot weather returned on August 22.