Record rainfall from Hurricane Harvey

Hurricane Harvey was the first major hurricane to make landfall in the USA for 12 years. What began as a tropical storm became the most destructive hurricane to hit Texas in 50 years.

On 23 August 2017, the National Hurricane Center (NHC) upgraded the storm to a tropical depression. By the following day, when NASA’s Terra satellite captured this natural-colour image at 11:24 a.m. Central Daylight Time (CDT), it had developed over the Gulf of Mexico into a large tropical cyclone.

According to the NHC, Harvey increased in strength rapidly from a tropical depression to a major hurricane in about 40 hours. It reached peak intensity as a Category 4 hurricane with winds of 130 mph (215 km h⁻¹) at 18:00 (CDT) on 25 August. It made landfall later that day on the mid-Texas coast at around 22:00.

Harvey produced the highest ever total rainfall associated with a single storm recorded in the USA. The weather station at Nederland, Texas, about 140 km east of Houston, now holds this record: 1,640 mm or 1.6 metres. The extremely heavy rainfall produced catastrophic flooding across much of southeastern Texas. In the Houston metropolitan area — where many places experienced rainfall totals in excess of 1,000 mm over a 4-day period — much of the city was devastated by flooding.

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