NASA catches 3 tropical cyclones at 1 time

July 23 2011

In this infrared image from the GOES-13 satellite on July 22 at 0845 UTC (4:45 a.m. EDT) Bret and Cindy are in the Atlantic, Low#1 (from a tropical wave) is in the Caribbean and Hurricane Dora is in the eastern Pacific, off the coast of Mexico. Credit: NASA/NOAA GOES Project, Dennis Chesters

It's not often that a satellite can capture an image of more than one tropical cyclone, but the GOES-13 satellite managed to get 3 tropical cyclones in two ocean basins in one image today. Bret and his "sister" Cindy are racing through the North Atlantic, while another area tries to develop far to their south. "Cousin" Dora is still a hurricane in the eastern Pacific.

In infrared image taken on July 22 at 0845 UTC (4:45 a.m. EDT), GOES-13 captured Tropical Depression Bret, Tropical Storm Cindy in the north Atlantic and low pressure area associated with a tropical wave

in the Caribbean and Hurricane Dora is in the eastern Pacific, off the coast of Mexico. Cindy is 910 miles west-northwest of the Azores and Bret 295 miles northwest of Bermuda.

NASA's GOES Project issued an infrared image of both Bret and Cindy today from the GOES-13 satellite, which is operated by NOAA. The NASA GOES Project is housed at NASA's Goddard Space Flight Center in Greenbelt, Md. and uses GOES-13 data from NOAA to create images and animations.

Bret Being Battered

During the morning of July 22 Bret has sped up on his track through the north Atlantic and weakened. Bret is being battered by winds and cooler waters.

Bret was a tropical depression at 8 a.m. EDT on July 22, with maximum sustained winds near 35 mph (55 kmh). He was speeding to the northeast near 21 mph (33 kmh). By noon (EDT) Bret had degenerated into a low pressure area. His center was near 37.7N and 64.2 W, about 375 miles north of Bermuda.

Bret is now experiencing very strong wind shear and moving into cooler waters, two factors that will help dissipate the depression over the weekend. Those waters that Bret is moving into are cooler than 71 Fahrenheit (22 Celsius), about 9 degrees cooler than the threshold of warmth needed to keep a tropical cyclone going.

Tropical Storm Cindy Racing North

As Bret has sped up in his race across the Atlantic, so has his sister Cindy. Cindy is actually out-racing Bret, as she's moving to the northeast

near 29 mph (46 kmh) in the far north Atlantic Ocean. She is expected to continue moving in this direction over the weekend. GOES-13 satellite data showed that her cloud pattern has become ragged overnight.

She was located about 805 miles northwest of the Azores near 44. 5 North and 39.9 West. Her maximum sustained winds were near 50 mph (85 kmh), so she's stronger than her "brother" Bret, who is now down to tropical depression status. Because Cindy is now in very cold water (68F/20C), weakening is forecast and like Bret, she could dissipate over the weekend well to the west of the British Isles.

A Tropical Wave Trying to Get Organized

Far to the south of both Bret and Cindy a low pressure area belonging to a tropical wave in the Caribbean is trying to get organized. As of July 22, the National Hurricane Center noted that there's only a 20 percent chance that the low will get its act together over the weekend.

The low pressure area is located about 425 miles east of the Windward Islands, near 15 N and 50 W, and is kicking up scattered showers and thunderstorms. It is moving almost as fast as Bret, and is headed west-northwest between 15 and 20 mph. During July 22 and 23, that low pressure area is expected to bring locally heavy rainfall and gusty winds to parts of the Lesser Antilles.

Hurricane Dora Weakening Hurricane Dora continues to weaken from northerly wind shear as it moves northwest into cooler waters as cool as 23 Celsius.

At 8 a.m. EDT on July 22, Dora has weakened to a category one hurricane on the Saffir-Simpson scale as it continues to parallel the western coast of Mexico and move in a northwesterly direction about 9 mph (15 kmh). Dora's maximum sustained winds are now near 90 mph

(150 kmh). It is centered about 255 miles (415 km) south of Cabo San Lucas, Mexico near 19.2 North and 109.2 West. Minimum central pressure is 977 milibars.

There is a tropical storm warning in effect in Mexico from Agua Blanca to Buenavista including Cabo San Lucas. That means that tropical storm conditions exist somewhere in the warning area or will within 24 hours. Tropical Storm-force winds are likely in the warning area as Dora's center stays off the coast, and hurricane-force winds only extend out 35 miles from her center.

Southwestern Mexico and Baja California beaches and coastal areas will be hit with large and dangerous ocean swells. These swells will likely cause life-threatening surf and rip current conditions.

By Monday, July 25, Bret and Cindy may be off the books while Dora is expected to last through the weekend. As for the tropical wave in the Atlantic, GOES-13 will keep a close eye on it.

Provided by NASA's Goddard Space Flight Center