The peak of the hurricane season – why now?

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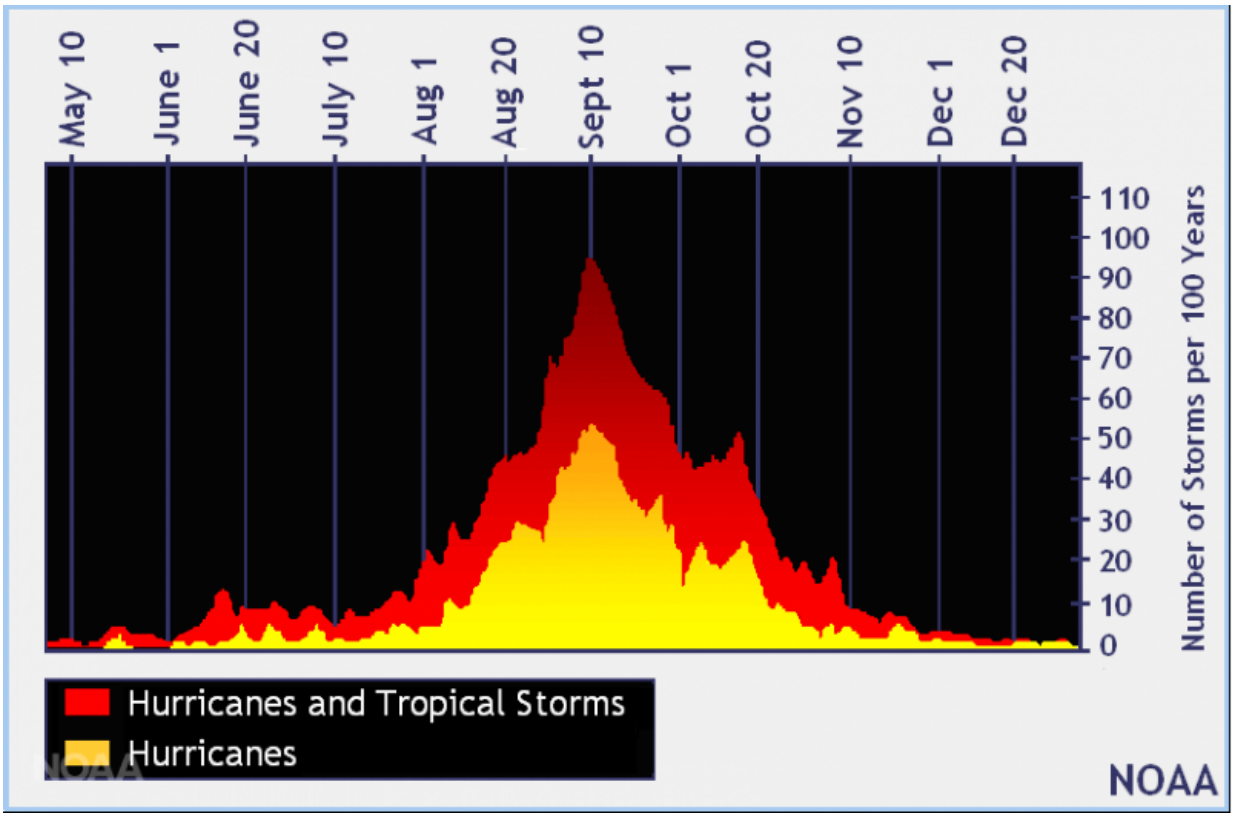
Credit: NOAA Headquarters

Although the Atlantic hurricane season officially began on June 1st, we're now entering the "season within the season" - a roughly eight-week period that is often the most active and dangerous time for tropical cyclone activity.

From mid-August through mid-October, the activity spikes, accounting for 78 percent of the tropical storm days, 87 percent of the category 1 and 2 hurricane days (Saffir-Simpson Hurricane Wind Scale), and a whopping 96 percent of the major (category 3, 4 and 5) hurricane days.

Why does this peak period of activity begin so deep into summer? There certainly is no lack of disturbances throughout the entire six-month hurricane season. Tropical waves are coming off of the coast of Africa roughly every three days, and the very early and late parts of the year provide additional types of potential seedlings. What's different, though, is the environment that these potential tropical cyclones tend to encounter. Both dynamics (wind factors) and thermodynamics (temperature and moisture) play a role.

Wind shear, which can tear disturbances apart before they strengthen, is strong in May, but gradually fades through June and July, reaching a minimum by mid to late August. This minimum in the shear combines with favorable thermodynamics – ocean temperatures in the deep tropics that increase with each day of summer sun, warmer air temperatures, and increasing atmospheric moisture. When the dynamics and thermodynamics are in sync, as they often are from mid-August through early October, disturbances like African tropical waves can easily strengthen. The statistical peak day of the hurricane season – the day you are most likely to find a tropical cyclone somewhere in the Atlantic basin – is September 10th.



The number of tropical storm and hurricane days for the Atlantic Basin (the Atlantic Ocean, the Caribbean Sea, and the Gulf of Mexico) jumps markedly by mid-August . Credit: NOAA

By mid-October, when winter begins to give autumn a little nudge, strong upper-level winds bring increased wind shear to much of the Atlantic basin, while both the air and water temperatures cool. The season is not over yet, but the areas where storms can form become limited.

One thing that doesn't change as we move into and out of the peak of season is the need to be vigilant and prepared. Because it doesn't matter whether activity levels are high or low – it only takes one storm to make it a bad year for you.

More information: For more information about hurricane season please visit NOAA's National Hurricane Center: www.nhc.noaa.gov/

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