

INSIGHTS

## What Are the Odds?

July 21, 2022

By: [Vincent E. Morgan](#)

On this episode of Bracewell Covered, [Vince Morgan](#) discusses hurricanes and climate change with Eric Berger, the host of Space City Weather and the senior space editor at *Ars Technica*. Eric is a certified meteorologist who has written about weather in the Houston area for more than a decade.

**Has science and technology sort of advanced to the point that all the weatherman jokes we all grew up with are a thing of the past? Where are we in terms of the state of development of that field?**

Weather forecasting has certainly come a long way in the last two decades since I have been writing and thinking about this field. The reality is yes, the forecasts have gotten substantially better, and there are a couple reasons for that.

The primary reason is that the power of the supercomputers that we can run these on is just that much greater. Supercomputers means you can run these models at a higher and higher resolution, which means you get better outputs.

We have also gotten improved inputs into those models, which is also important. The speed at which you can take current observations and feed them into the models has also really improved.

**Do you think there are still meaningful strides to come? Is there something that we cannot do today that we think that we'll be able to solve in the next five, 10 years tech-wise?**

There is a fundamental limit due to chaos theory, essentially that we can really only predict things so far out. That limit seems to be for weather probably in a 10- to 15-day range. After that, you can get some climatological or some general ideas of whether it's going to be warmer than normal or cooler than normal, or wetter or dryer than normal. To have any precision, there is a fundamental limit that we're pushing up against. We've got a little ways to go yet. I think the best way to describe it is that we've sort of picked the low hanging fruit on that. Any gains now will be more incremental in nature.

**I've spent almost my entire life in Texas, and I've lived through a bunch of Texas summers. There's always that June thing where it gets really hot for maybe a weekend and then it kind of goes back to normal, but here it's just like the heat turned on and stayed on. Are we headed for a stronger season as we head into the peak now that the water is so warm out in the Gulf?**

I think the answer to that is it probably has very little effect. The reason I say that is because the Gulf of Mexico is always warm enough for hurricanes in August and September, even during a cold summer, which we are unlikely to see. The Gulf of Mexico temperatures are going to be above 80 degrees Fahrenheit, which is really what you need to sustain those storms and strengthen them.

**It leads us to things like the Ike Dike which we hear a lot about. Every time there is a storm, that question of should we build it comes back up in the news. What is your sense of either that project or things like it?**

I actually wrote the first-ever story about the Ike Dike back in 2008 and talked to Bill Merrill about it. He had coined the phrase, and this was right after Hurricane Ike, so we were thinking the storm surge is pretty bad. We've got to do something to protect it, especially with all the assets along the ship channel and the potential for economic damage and also chemical harm from all those facilities. It was really hard to build a case for funding the Ike Dike, just because we were coming into a serious recession and the federal government was under stress and so forth. Now 14 years later, it looks like there is some pretty good momentum on that.

**We hear this from our clients who are hearing it from their insurers. Do you and your team hear outreach from folks talking about weather issues and when it comes to insurance or is that not making its way to your group yet?**

We are certainly familiar with that. We are very consumer-focused. Not that we are selling products to people, but we are very focused on talking to moms in the community, families in the community. We don't do much business-to-business work, but certainly we talk about climate change with our readers to let them know, like this heat that we saw in June was unprecedented. Sure, the urban heat plays an effect, but Galveston is setting a new temperature record in terms of high minimum temperatures. Basically, nighttime temperatures are much warmer than they have ever been. It's not like the airport sensor in Galveston is surrounded by a big city. Climate change is a big part of it, but we're not talking to businesses about how they can mitigate it. We are just trying to help readers understand some context of how the weather is changing and why that is.

Have questions about insurance coverage, including what steps you should take as peak hurricane season approaches? Contact [Vince Morgan](#).

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