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Federal Hurricane Forecasters Did Their Job

By [ANDREW C. REVKIN](#)

It seems inevitable to have finger-pointing whenever a hurricane makes landfall. If the storm weakens, there are charges of alarmism and fear-mongering. If it veers or strengthens, hammered communities cry out. With Hurricane Irene, it was mostly the former, as various factions with axes to grind piled on the National Hurricane Center. (A case in point was [Patrick Michaels](#), a climate scientist at the anti-regulatory Cato Institute who last Friday said the storm should be renamed “[Hurricane Hype](#),” adding that he doubted it would “[cough up even eight bodies](#).” With the death count far higher, he [apologized through the Watts Up With That blog](#).)

Noah Rosenberg for The New York Times **Media Note:** On the public radio show [Marketplace](#), I discuss the inland flood damage from the remnants of Hurricane Irene, which included the destruction of this house in Prattsville, N.Y.

The National Oceanic and Atmospheric Administration created a video (above) [to bolster its argument](#) that it predicted Irene’s track, if not the storm’s strength, right four days in advance.

Jeff Masters of Wunderground [credited the hurricane center](#) for getting the track remarkably right and noted, importantly, the role of investments in satellite and computer analysis, which end up a bargain when averted costs are weighed:

According to a 2007 [presentation](#) at the 61st Interdepartmental Hurricane Conference, the improved hurricane forecasts between 2000 – 2006 resulted in savings of \$3 billion compared to what the forecasts of the 1990s would have cost.

Jason Samenow, an excellent weather/climate blogger for the Washington Post, [noted a hint of cherry-picking](#) in the video in that a subsequent forecast actually strayed in its track, but that’s minor, to my mind.

Anyone griping about the intensity forecast for Irene simply has no case, in that these forecasts are always portrayed as conditional and history shows just how much small shifts in conditions in the last few dozen miles offshore can make or break a tropical cyclone. Where there’s hype it usually shows up when media, or sometimes officials, pick up on worst-case outcomes and drop the uncertainty or error bars.

In following the course of projections for this storm, and then the burst of criticism about failed intensity forecasts, I was brought back to the hours I spent with meteorologists at the National Hurricane Center in September, 2004, as they tracked the course of Hurricane Ivan (shortly before [I headed to Alabama to cover its landfall](#) as a major hurricane; here's a [narrated report I filed from Mobile](#)).

Here's the scene in the Miami forecasting center, which illustrates why the midpoint of hurricane forecast tracks is relatively meaningless:

At the National Hurricane Center, a gray bunker bristling with satellite dishes on the outskirts of Miami, meteorologists scanned readings last weekend gleaned by aircraft plunging into the eye of Hurricane Ivan and they squinted at satellite images while preparing a fresh forecast for the track of the dangerous storm.

Jim Wilson/The New York Times Hurricane Ivan came ashore at Gulf Shores, Ala., in September 2004. In nearby Orange Beach, buildings and a swimming pool were devastated.

After assessing the data and the output of half a dozen supercomputer storm simulations, Stacy R. Stewart sat in front of a map of the Atlantic and Caribbean with an eraser and colored pencils, drawing the storm track newly estimated for the next five days. The map was filled with erasures of older storm projections that had at one point been the best bet but now were off by hundreds of miles as the storm's northerly curve drifted west.

This is the state of hurricane science in the new century: a mix of growing skill and persistent uncertainty, of intuition and algorithms, satellites and erasers.

A great deal has been learned from remote sensing and eye-diving aircraft and computers running trillions of calculations a second. Predictions are improving. But in the midst of such progress, the forces that guide the path and growth of individual hurricanes remain cloaked in mysteries.... [[Read the rest.](#)]

Forecasting intensity, then and now, is more of a challenge than predicting the track, given the small-scale influences that can empower or weaken a storm.

The meteorologists who hunker down day and night doing this work — not to mention the teams on aircraft probing the innards of storms — deserve heaps of credit, not pointed fingers.