

Learning Lessons From the Wind

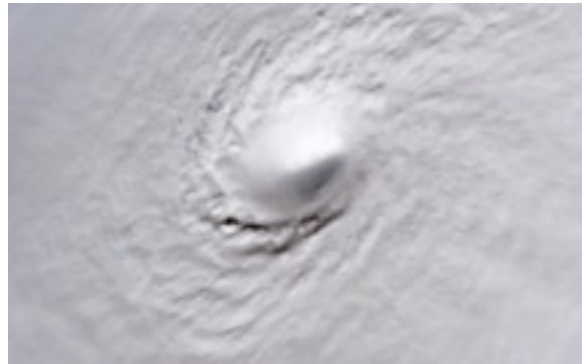
Book Review by Eric J. Olson, PhD/ Special To The Tab
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Book Review

Divine Wind, The Science and History of Hurricanes, by Kerry Emanuel, copyright 2005, Osford University Press.

If there is one must-learn phrase in Kerry Emanuel's magnificent book it is this: hurricane amnesia. This is not what victims of hurricanes suffer after being struck by flying debris, this is the more widespread drift and denial that our seacoast culture slips into soon after the storm surge has receded and the insurance adjusters have written their reports. We stand witness to the tragedy of New Orleans--for now. We point fingers at the government--for now. We speculate on the role of global warming in all this, as if insanely powerful hurricanes were some new phenomenon on the scene. All of this diverts our attention from the real tough question, which is what should New Orleans become? And what about Florida, that vast low-lying peninsula with one of the higher growth rates of any state in the US? Do we really want to put so many families and dreams and treasure in harm's way over and over again? This is the essence of hurricane amnesia: when a nation has such a profound attachment to place and growth and warm sandy beaches that we *must* forget just so we can move on. Addicts have their relatives as enablers, and we have...Uncle Sam's flood insurance program?

Thankfully, Kerry Emanuel has written an antidote to hurricane amnesia, and in spite of his recent fame as herald of global warming (more on that below), his book also serves as a rebuttal to the notion that Katrina is retribution for the fact we've heated up the globe. What we get from *Divine Wind* is a very different image of these storms – one that we could relish if we would just pull our cities back from our subtropical coasts and watch the sea and the sun and swirling tropical air perform their ancient dance. People travel the world over to see a full eclipse of the sun or improve their look at a passing comet, why not be spectators (via satellite and pilotless planes) of the hurricane?



Hurricane Wilma, the strongest Atlantic hurricane in history (winds of 175 mph). Photo from International Space Station 19 October 2005

Here's a pity of our modern age: we so dread these mighty winds we can't enjoy them more. Dr. Emanuel shows the way, he is a storm-meister, a wind fanatic, a reveler in the power and the glory and the beauty of the hurricane. Read him -- you

will be won over. Fond of literature? Interspersed throughout are poems, ballads, excerpts from *The Tempest*, snippets of great storm prose. Enjoy paintings? He has tracked down the world's best storm-wracked work and here they are, rendered in superb color. Relish a good disaster tale? Every third or so chapter tells the story of one of the truly Great Storms of the past several centuries. Or perhaps you're an engineer, or appreciate fine science writing? Dr. Emanuel the MIT professor patiently explains in words, with just a touch of algebra, how a hurricane is the closest thing nature offers to the ideal heat engine first described by Carnot. He even turns chaos theory into a human-interest story by telling the tale of its serendipitous discovery.

So great hurricanes have always been with us, and by building in their path we're just asking for trouble. But there is something new, so new it's scarcely mentioned in the book: humans are decisively fanning the flames that feed these storms. Dr. Emanuel was launched to fame this year on the basis of his August report in the prestigious journal *Nature* showing that hurricane intensity and duration are both increasing, in lock step with the warming of the oceans. Coming out just two weeks before Katrina, the report naturally led to a media surge on his office throughout the fall. That was when I first heard of him, interviewed on NPR, then again this January profiled in the *NY Times*. Sadly, the splendor of his book is lost in the intense focus on the conclusions of his *Nature* paper. But denial about climate change is perhaps even deeper than denial about hurricanes. Just maybe Kerry Emanuel will help us come to terms with both. We need more centrist scientists to come forward, now that the data are in. Here, listen: "There is no doubt that in the last 20 years, the earth has been warming up. And it's warming up much too fast to ascribe to any natural process we know about". (Kerry Emanuel, *NY Times*, 10 January, 2006).

Hurricanes have indeed always been with us, they have always been born from hot tropical seas, and they have often slammed into land. But thanks to Dr. Emanuel we can all learn more about their savage beauty. And now he has shown us there is something new about them, that hurricane power in the Atlantic has more than doubled in the past 30 years. He and his colleagues are still working out how things could have gotten so much worse so fast, but Dr. Emanuel regretfully concludes that we humans are partly to blame. We warmed the seas, and that has changed the hurricane. Let's not forget.

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