

The N.Y. Times ran a front-page [article](#) Sunday about the organizational problems that contributed to the Deepwater Horizon disaster. For those who are familiar with the research on the causes of catastrophic accidents, there are few surprises. Deepwater Horizon involved three familiar organizational flaws that are often associated with catastrophic outcomes. The same kinds of [organizational failures](#) that led to the collapse of the defective New Orleans levee system during Hurricane Katrina were involved in Deepwater Horizon.

First, there were several different organizations involved (both on the rig itself and in the regulatory agencies), with poor coordination and communication between them. This is a familiar issue for those who study major accidents. Errors often occur in the “[interstices](#)” — between different shifts or different organizations, where critical information fails to get communicated. In the case of Katrina, the interstices were between the operational and research components of the Corps of Engineers and between the Corps and local levee authorities.

Second, there is a trade-off between safety and efficiency. In New Orleans, rethinking the design and construction of the system would have added delay and cost, which were unthinkable. Similarly, BP was anxious to get the well up and running, because every day of delay cost additional fees. Extra testing, responding to unforeseen problems, and attention to protocols got brushed aside.

Third, Deepwater Horizon featured the “[normalization of deviation](#)” — people become accustomed to circumstances that should be ringing warning bells and come to accept them as normal. In this case, workers on deep water rigs became used to widespread ad hoc deviations from protocols. In the New Orleans, people got used to seeing trees growing on levees and water spouts on the land side, both signs of weakness.

I was going to say, “this isn’t rocket science.” In one sense, that’s true — you don’t need calculus to understand the issues. But actually, in another sense, it really *is* rocket science: exactly these three factors were involved in the [Columbia](#) and [Challenger](#) space shuttle disasters.