

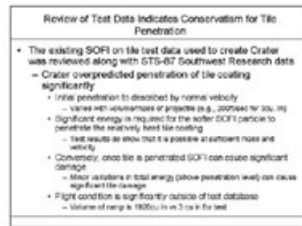
# How PowerPoint downed the space shuttle

 By [Sid Peimer](#)

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Space shuttle Columbia orbited the earth for two weeks with an unknown hole in the wing due to a foam strike (the latter which NASA did know about). The craft burned up on re-entry, killing the entire crew. It also killed PowerPoint at NASA. These are the six cognitive traps that PowerPoint is so good at - and all six appear in a key slide that was used in a presentation by Boeing while Columbia was damaged but still flying.

This is the slide:



[click to enlarge](#)

These are the cognitive traps:

## 1. Festival of bureaucracy

There are five different levels to this slide (counting the headline). The first three sentences are all in big print and tell you not to worry. Read further down, and you should worry - big time. By the way, SOFI means foam (or for the tech-heads: Spray On Foam Insulation). The word 'Crater' refers to the model they were using to evaluate how bad the foam strike was.

## 2. Conclusion as headline

We often want to get to the bottom line. PowerPoint is the opposite - it allows us to present a conclusion as a headline, reducing the motivation to follow the details of the story. The headline says everything is OK. The content says otherwise.

## 3. Choice of words

The word 'significant/ly' appears five times. But read down the slide, and 'significant' changes from describing a conservative outcome to a disastrous one. But the one that comes first sets the tone in this busy world of ours.

#### 4. Relevance

If you read the last line, it tells you that all the data presented is irrelevant - it falls outside the scope of the Crater model.

#### 5. Inconsistency

The same unit for volume (cubic inches) is shown in a slightly different way each time. Things can get out of hand in aerospace engineering when things are inconsistent - such as crashing a US\$250 million spacecraft into Mars because of a mix-up between metric and the old pounds-and-ounces system. Oops.

#### 6. Shrinking away

We tend to shorten sentences into 'bullet points' for PowerPoint. Sometimes this results in a sentence only its mother could love. What the heck does "Initial penetration to described by normal velocity" mean? Why is it there?

When you get whacked on the side of the head, it's the fact that kinetic energy is velocity squared that hurts so much. In the same way, we can increase the energy of what we want to convey by using cognitive traps in presentations. However, lies are like shipping and handling costs - it will get you every time.

Reference: Edward Tufte. PowerPoint Does Rocket Science: Assessing the Quality and Credibility of Technical Reports.  
[www.edwardtufte.com](http://www.edwardtufte.com)

## ABOUT SID PEIMER

Sid Peimer lives on another planet. We're not quite sure where, but you can find him at [www.stratplanning.com](http://www.stratplanning.com) where there's lots of free resources on new business pitching. He is also the strategist at large for the full service agency BE+P based in Cape Town.

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