

THE ENGINEERING OF MURPHY'S LAW?

The following article provides a clue as to the origins of Murphy's Law. However, there are alternate theories to how Murphy's (or Sod's) Law came about. See the following website for the original source of this article and more information:

<http://www.murphys-laws.com/murphy/murphy-true.html>

MURPHY'S LAW ORIGIN

The following article was excerpted from *The Desert Wings*
March 3, 1978

Murphy's Law ("If anything can go wrong, it will") was born at Edwards Air Force Base in 1949 at North Base.

It was named after Capt. Edward A. Murphy, an engineer working on Air Force Project MX981, (a project) designed to see how much sudden deceleration a person can stand in a crash.

One day, after finding that a transducer was wired wrong, he cursed the technician responsible and said, "If there is any way to do it wrong, he'll find it."

The contractor's project manager kept a list of "laws" and added this one, which he called Murphy's Law.

Actually, what he did was take an old law that had been around for years in a more basic form and give it a name.

Shortly afterwards, the Air Force doctor (Dr. John Paul Stapp) who rode a sled on the deceleration track to a stop, pulling 40 Gs, gave a press conference. He said that their good safety record on the project was due to a firm belief in Murphy's Law and in the necessity to try and circumvent it.

Aerospace manufacturers picked it up and used it widely in their ads during the next few months, and soon it was being quoted in many news and magazine articles. Murphy's Law was born.

The Northrop project manager, George E. Nichols, had a few laws of his own. Nichols' Fourth Law says, "Avoid any action with an unacceptable outcome."

The doctor, well-known Col. John P. Stapp, had a paradox: Stapp's Ironic Paradox, which says, "The universal aptitude for ineptitude makes any human accomplishment an incredible miracle."

Nichols is still around. At NASA's Jet Propulsion Lab in Pasadena, he's the quality control manager for the Viking project to send an unmanned spacecraft to Mars.



Researchers from British Gas have recently taken Murphy's Law a step further and developed a mathematical formula for predicting the likelihood of Murphy's Law events. This article is reprinted from: <http://www.britishgasnews.co.uk/index.asp?PageID=16&Year=2004&NewsID=623>

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THE FORMULA THAT PROVES THAT 'SOD'S LAW' REALLY DOES STRIKE AT THE WORST POSSIBLE TIME

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(see previous page for reference)

Boffins have finally proven mathematically a rule that everyone knows is perfectly obvious each time their e-mail crashes on a deadline or the shower runs icily cold.

A panel of experts commissioned by British Gas - a psychologist, a mathematician and an economist - has discovered the statistical formula for predicting Sod's Law occurrences: $((U+C+I) \times (10-S))/20 \times A \times 1/(1-\sin(F/10))$.

And they found the original Sod's Law - 'Anything that can go wrong, will go wrong' - is only half the story. They also found a new rule, after testing the formula on over 1,000 people's experiences - 'Things don't just go wrong, they do so at the most annoying moment'.

This explains why your e-mail **will** most likely crash as you try to send something important, chances are highest that you **will** spill a drink down your clothes before a date and it's a safe bet your heating **will** most often break down in a cold snap.

Previous studies have shown Sod's Law isn't a myth - toast will fall butter side down, odd socks do breed and string can tie itself into knots. Now the British Gas formula allows people to calculate the chances of Sod's Law striking - and try to beat it.

Five factors - urgency (U), complexity (C), importance (I), skill (S) and frequency (F) - have to be applied to a task or an event, and each scored between 0 and 9. A sixth, aggravation (A), was set at 0.7 by the boffins after their poll of 1,000 people.

Calculating $((U+C+I) \times (10-S))/20 \times A \times 1/(1-\sin(F/10))$ enables you to score a Sod's Law probability on a scale of 0 to 8.6, with higher numbers making it more likely that bad luck is right around the corner.

Anne Morton, of British Gas said: "In our experts' tests, the mercilessness of Sod's Law emerged. Not only do things go wrong, they do so when they are most likely to drive their victims up the wall.

"For example, Sod's Law shows how cruel it can be when it comes to the shower turning cold just as you've shampooed. Men aren't bothered, and so the chances of it happening to them are low; women hate it and it happens far more to them."

Spilling something down yourself before a date and the boiler breaking down in a cold snap are both the most likely and most annoying events.

	Sod's Law Event	Likelihood (Out of 10)	Annoyance (Out of 10)
1	Spilling something down yourself before a date	8.5	7.4
2	Boiler breaks down in a cold snap	8.2	7.8
3	Rush hour is worse when you're already late	7.3	6.9
4	Email crashes as you send important document	7.0	5.4
5	Washing machine breaks down before holidays	6.7	7.2
6	Cooker packs up when you expect guests	6.4	7.0
7	Shower runs cold as you shampoo your hair	6.0	6.2
8	Doorbell/phone rings as you get in bath/shower	5.3	5.2
9	Someone you're gossiping about overhears you	4.6	4.7
10	Spare light-bulbs never match ones that fails	4.4	3.4

Dr David Lewis, the psychologist on the British Gas project, said: "The lesson from this is that, to cut the seemingly unbeatable

Sod's Law Gremlins down to size you need to change one of the elements in the equation.

"So, if you haven't got the skill to do something important, leave it alone. If something is urgent or complex, find a simple way to do it. If something going wrong will particularly aggravate you, make certain you know how to do it"

"For example, you spill a drink on yourself before a date because, making the urgent and important decision of what to wear, you forget all you knew about getting a cup to your lips and throw tea down yourself. So concentrate harder on drinking.

"And while a boiler breakdown in winter, when urgency and your own lack of ability to fix it, is second on the Sod's Law list, a boiler breakdown in summer is less likely to be an emergency and so isn't on the list.

"When you're emailing an important document anxiety will make it more likely that you will hit one of those mysterious keyboard combinations that make everything vanish. Try not to let your computer know you're in a hurry."

And he added: "There is, of course, a Sod's Law factor to the equation. If you judge your ratings wrongly, you might become too optimistic - and calamity will strike."

Sod's Law is the English expression for US saying 'Murphy's Law', which was named after a US Air force boffin, Captain Edward Murphy, who in the late 1940s used his boss as a human guinea pig in a painful experiment that went embarrassingly wrong. The French call it 'La loi d'emmerdement maximum'.

The equation has seven steps to forecasting a potential Sod's Law moment, so you can work out which factors you need to change to avoid it:

1 - Rate the urgency, the importance and the complexity of the task on a scale of 1 to 9 and add these three figures together

2 - Rate from 1 to 9 how skilled you are at the task, then subtract this from 10

3 - Multiply your answers to **step 1** and **step 2** together and divide by 20

4 - Rate from 1 to 9 how frequently you perform the task and divide this by 10

5 - Take the sine of your answer to **step 4** (you'll find this as 'sin' on most calculators) and subtract this from 1

6 - Divide 1 by your answer to **step 5**

7 - Finally, multiply your answer to **step 3** by 0.7, and then multiply this by your answer to **step 6**, and you have your Sods Law rating.

8 - The closer to 10 it is, the higher your risk of falling victim to Sods Law.

Notes to editors

British Gas commissioned Dr David Lewis, a chartered psychologist; Dr Keylan Leyser, an economist and business consultant; and Philip Obadya, a mathematician, to devise the formula. Likelihood scores are for a typical adult and are based on the nationwide survey of 1023 adults, conducted by Taylor Nelson Sofres (TNS) that the team used to test their work.

SPECIAL THANKS TO TERESA ALLEY FOR SUGGESTING THESE ARTICLES ON MURPHY'S LAW.

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