File 20100803.2046: Notes from reading [1] at M's dance class this evening:

On page 235, there is another sad story that could have been prevented by high-fidelity testing. High fidelity testing of a real-time mission profile would likely have detected the software problem that caused a long duration pulse to be applied to the latching relay coils, overheating them (the British microsatellites STRV 1C and 1D).

Footnote numbers go after the fill stop at the end of a sentence, with no intervening thin space.

On page 253, perceived risk is highlighted. Quote:

> One of the most popular series of geostationary communications satellite was the 3-axis stabilised HS-601... After PanAmSat 4 lost its primary SCP in November 1998, its transponders were leased out at a discounted rate due to the risk of the satellite 'going dark' without warning. After DirecTV's third satellite lost its primary SCP in May 2002, the satellite was moved to a graveyard orbit because its operators deemed the risk of its secondary unit failing too great. [...]
>
> This story highlights not only the absolute risk of failure, but also that *perceived risk* can end a mission [emphasis in original]. While scientists might make do with whatever they can get, a reputation for reliability is essential in the telecommunications industry, and even though a satellite running on its sole SCP might operate for years, the risk of sudden interruption of the TV-feed to millions of customers is too great a business risk. Another point of this story is that a generic risk places a significant burden on insurance companies, which operate by spreading risk. An insurer might diligently spread risk by booking satellites on different launch vehicles, but if a generic flaw is found to affect a whole series of satellites then the insurer can be left heavily exposed.

I believe this applies to accreditor behaviour as well. Note: the elipsis within square brackets is according to my interpretation of [2].

References

[1] David M. Harland and Ralph D. Lorenz. *Space Systems Failures: Disasters and Rescues of Satellites, Rockets and Space Probes*. Praxis, Chichester, UK, 2005.

[2] R. M. Ritter, editor. *The Oxford Style Manual*. Oxford University Press, 2003.