

Re: antennas

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2007-10/msg00338.html>

- *From:* Jeff Liebermann <jeffl@xxxxxxxxxx>
 - *Date:* Tue, 02 Oct 2007 10:58:10 -0700
-

CptDondo <yan@xxxxxxxxxxxxxxxxxx> hath wroth:

Jeff Liebermann wrote:

Rich Grise <rich@xxxxxxxxxx> hath wroth:

In a broad sense, anything that gets built had to have been designed.

Choke, cough, sputter, etc... I need a rant. I've done cleanup jobs on products that never saw the benefits of a calculation. Many were reverse engineered or cloned, with only a minimum understanding of the original design[1]. The rush to market has created some truly amazing implementations that border on butchery. In the broad sense, I agree that most things eventually are designed, calculated, re-designed, re-calculated, optimized, cost reduced, cost reduced some more, butchered, and delivered. Many products are a basically good idea, badly implemented, and held together by a mess of band aids. Touch anything, and the house of cards falls over. Fortunately, it was fixing such butchery that kept me in business for a long time.

<<http://www.enterprisenetworkingplanet.com/netos/article.php/3696296>>
:-)

Cute, true, and getting worse. However, the above article is about software abominations, which is quite different from hardware and antennas. Software can be fixed, which is it's own punishment as the fixes are arriving much faster than the products. There isn't anything I've bought with software or firmware, that didn't require an update on arrival.

Not so with hardware. They're not called patches, updates, or fixes. They're called recalls, rebuilds, or warranty replacements, with all

Re: antennas

the detrimental implications. Software is easy to fix, but not hardware.

So, one would expect that there would be more care applied to hardware design, to avoid the warranty recall experience. That's generally true, but there were enough exceptions to have kept me in business. The generally higher level of quality is probably due to the minor fact that anyone can see if the hardware is malfunctioning. However, software bugs and oddities are not so easy to see or identify. Hardware also requires considerable time and effort to add features, while in software, feature bloat is epidemic. Features and functions get added faster than bugs get fixed, so the inevitable result is a bloated and bug infested product. If that were true for hardware, civilization would have collapsed long ago.

Antenna design has other important advantages. You can't see it work. You can't tell how it works. Product comparisons are almost impossible. Nobody understands the numbers. RF and antennas are indistinguishable from magic. I've often considered going into the antenna business, where the basic plan would be to design maximally weird looking antennas, with marginal performance. If I have time, maybe I'll do some calculations to see how badly it works.

--

Jeff Liebermann jeffl@xxxxxxxxxx
150 Felker St #D <http://www.LearnByDestroying.com>
Santa Cruz CA 95060 <http://802.11junk.com>
Skype: JeffLiebermann AE6KS 831-336-2558

Re: antennas