President's Message

International System Safety Society President
Chuck Muniak

BOGSAT

Recently, I was working on an electrical safety issue and came upon an interesting article [Ref 1]. The author describes some research performed from 1936 to 1939 by Baron Whitaker, an electrical engineer at Underwriters Laboratories. Whitaker performed experiments on humans and animals to characterize the injuries that result from electric shock and determine the equipment properties that are needed for safety. The author asserts that this research still stands today and laments that "we don't do much research anymore," but instead develop standards based on the "Bunch Of Guys Sitting Around Talking" (BOGSAT) process.

I am not criticizing BOGSAT, and I admit to being a frequent participant in this process over the years. The problem is that any ties to the real world of a BOGSAT effort are usually not documented in a way that is clear to those reading about it, so the effect is soon forgotten. BOGSAT is a good starting point, but I assert that more is needed if one desires to develop standards and methods that withstand the passage of time.

There is an example from the medical profession that represents an egregious example of BOGSAT [Ref 2]. For many years, radical mastectomy was the treatment of choice for breast tumors, even though some results in the 1920s showed that less-invasive methods might be just as effective. Finally, in the 1980s, some scientific research demonstrated the efficacy of less-invasive treatments. Both approaches saved lives, but the more radical method had a high cost in terms of unneeded pain and suffering for patients. I believe that medical practitioners were trying to do the right thing, but the radical mastectomy proponents talked themselves into incorrect beliefs about the efficacy of their methods. One might also ask if there are system safety-related procedures and requirements that are the result of BOGSAT — and not scientific evidence.

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I am advocating that more scientific research be performed for system safety, but this is easier said than done. There are a number of approaches to doing research on the efficacy of system safety methods, but there are difficulties with all of them [Ref 3]. Difficulties are not unique to system safety; in recent years, it has come to light that there are problems with the reproducibility of all kinds of research [e.g., Ref 4].

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References

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