I don’t know about everyone else, but I am concerned about the theft of system safety. It appears that other groups and organizations like the system safety process so much that they are adopting it for their own purposes. Then, they change the name to processes, such as “design for safety,” “safety by design,” “design-based safety,” “functional safety” and “prevention through design.” It’s not that this is entirely bad, but they act like it is a new concept and fail to give system safety its due. To me, this is causing an erosion of the system safety process and the International System Safety Society (ISSS). We need more voices to speak up and articulate what system safety is. I review several different safety groups on LinkedIn, and no one stands up and advocates for either system safety or the ISSS. What does this say about us? Should we be concerned?

The first technical paper in this issue, “The Dangers of the Metric Feet Yard — Multiple Measurement Systems Usage Effect on Safety” by Emil Vlad, discusses the positive and negative impact of using different (e.g., metric vs. Imperial) measurement systems in complex mission- and safety-critical systems engineering (e.g., transport, energy, etc.) and in engineering in general. This can lead to accidents, incidents and near misses due to confusion originating from incorrect conversion or use of measurement systems (kilo vs. pound, meter vs. feet, etc.). This can also contribute to non-safety events that lead to availability problems. The paper contains an analysis of a number of such cases, and concludes with some lessons learned, along with analysis of some alternatives to address this common-cause failure.

The second technical paper in this issue, “Recovering Errors in System Safety Analyses through Quality Checks – Part 2” by David Clarke, continues a discussion begun in Part 1 in the March-April 2012 issue of Journal of System Safety. Errors in system safety analyses can have several types of adverse consequences, leading to the requirement that steps be taken to detect and correct them. In Part 1 of this article, quality checks were identified as an important means of recovering such errors, and a model of the checking process was presented. Part 2 uses this model as the basis for identifying measures to enhance the effectiveness of checks, which will in turn enhance the safety process.

In his “TBD” column, Charlie Hoes discusses the advantages of alternative energy sources, along with the safety concerns attached to each. It makes you wonder if some of these alternative energy methods are cost effective or just a pipe dream.

In his “System Safety in Healthcare” column, Dev Raheja discusses unintended safety problems in electronic health records. There have been serious and sometimes fatal mishaps from errors, malfunctions and oversights in the design of electronic health records (EHR) systems. This paper discusses these safety issues and how to mitigate the hazards.

In the “Unintended Consequences” column, Terry Hardy discusses a mine explosion and resulting mine collapse that occurred on August 6, 2007 at the Crandall Canyon Mine in Emery County, Utah. This mishap killed six workers inside the mine and three rescue workers. There are several interesting lessons learned from this disaster.

Finally, in the “Design-Based Safety” column, Dave MacCollum discusses his thoughts on “Guinea Pig Hazard Identification.” He stresses the idea that design-based safety is not a casual process; rather, it requires diligence and effort. Good hazard analysis is not to be taken lightly, and the “guinea pig” approach must be avoided.

Remember, if you wish to opine send me an email at journal@system-safety.org.

Until next time,
Clif