From the Editor's Desk...

JSS Technical Editor
Clif Ericson

Changes

At the last Executive Council meeting of the International System Safety Society (ISSS), a decision was made to temporarily reduce the number of *Journal of System Safety* issues to three hard copies per year. This measure was necessary in order to reduce expenses that are currently exceeding income. We'll continue to provide a high-quality journal by including a little more material in each issue to help make up for the loss. If more members would pay their dues and encourage non-members to join the ISSS, our income would increase enough to go back to the normal number of issues.

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The first technical paper in this issue, "Using the Performance Specification Process in Hazard Elimination and Control" by Pamela Wilkinson, looks at performance specifications, which define the functional requirements for the product, the environment in which it must operate, and its interface and interchangeability characteristics. A performance specification states requirements in terms of the required results. However, a performance specification does not state the methods for achieving these required results. Performance specifications translate operational requirements into more technical language that tells the manufacturer what will be acceptable product performance and how that product acceptability is determined. System safety professionals can make use of the performance specification process to include those items that will verify the elimination or mitigation and control of a variety of hazards. This paper discusses the history and provides an overview of the Department of Defense performance specification process. It also provides guidance to the system safety professional in writing performance specifications and how to best use this process to verify that potential hazards have been eliminated or controlled.

The second technical paper in this issue, "Eliminating or Controlling System Risks via Effective System Safety Requirements and Standards" by Mike Allocco, looks at oversimplistic suppositions that occur when addressing system risks, when an analyst assumes that once single hazards are identified and hazard controls are applied, the job of a safety engineer is complete. Such a mindset is dangerous in that potential system accidents may not have been identified and mitigated. System accidents may be the result of many hazards that, under specific circumstances, form an adverse progression, resulting in harm. Consider that there may be systemic and synergistic risks associated with a system. Designers are generally concerned with meeting a customer's needs; however, in many situations, neither the customer nor the designer may be aware of systemic and synergistic risks related to a particular design. Experience shows that more than 50 percent of requirements are either not defined or not articulated clearly by the customer. Given that there may be non-apparent system hazards that present systemic and synergistic risks, how then are effective system safety requirements and standards developed to assure that system risks are eliminated or controlled to acceptable levels? This paper offers concepts, criteria and considerations to provide context and answer that question.

In his "System Safety in Healthcare" column, "Curing the Risk Management Process in Hospitals," Dev Raheja discusses the hospital risk management process, pointing out the simple fact that the risk management process itself in most hospitals is sick. The symptoms are clear, yet there are still more fatalities from medical mistakes than there would be if a jumbo jet crashed every week. Forty wrong surgeries occur each week, up to 30 percent of nurses have musculoskeletal injuries

from handling overweight patients, most hospitals are at a three-sigma level of quality, and there has been practically no reduction in the number of adverse events during the last 10 years. The medical system can be cured, but the system safety process needs to be applied.

In his "TBD" column, Charles Hoes presents three safety fairy tales. As with common fairy tales, they are based on factual events, but have muddled and incomplete descriptions of what happened and why. The purpose of fairy tales is not to frighten, but to point to universal safety messages that will hopefully keep us from future dangers. A common element of all three stories is a failure of human judgment and/or actions, which are ultimately likely the result of system design.

In the "Unintended Consequences" column, Terry Hardy discusses a fire that occurred on February 2, 2001, during which two employees of the Bethlehem Steel Corporation's Burns Harbor Mill in Chesterton, Indiana died. The accident occurred during work to remove a furnace that had been decommissioned in 1992, along with its associated piping. There are important lessons to learn from this mishap.

Dave MacCollum actually provides two "Design-Based Safety" columns for us: "Highjacking Shakedown" and "Scapegoats." As usual, both of these articles inform while delivering a touch of both prophecy and humor.

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

Until next time,
Clif

In Memoriam: Jimmy Keith Turner

We were saddened to learn of the passing of ISSS Member Jimmy Keith Turner. Turner was 64 and a resident of Tucson, Arizona.

The son of the late Jimmy E. Turner and Mary N. Turner, Jimmy is survived by his wife Atsumi and his younger siblings Gina Cummings of Memphis and brother, Glen Turner of Collierville. Jimmy, or "Keith" as he was known by family and friends, grew up in Memphis, Tennessee and graduated from high school there in 1967, attending Watkins S. Overton High School. He enlisted in the Navy in 1968 and was honorably discharged January 15, 1980 with the rank of Chief Petty Officer (E-7).

Jimmy held the position of chief fire control technician and was a leader in the field of system safety engineering, serving in many leadership roles within the International System Safety Society, and chaired the G-48 System Safety Standards Committee from 2005-2010. In lieu of flowers, the family requests a donation be made to the American Cancer Society (https://donate.cancer.org)

Mark Your Calendar

59th Annual Business Aviation Safety Summit (BASS) 2014
April 16-17, 2014
Sheraton San Diego Hotel & Marina
San Diego, California
http://flightsafety.org/aviation-safety-seminars

12th Probabilistic Safety Assessment and Management (PSAM) Conference
August 22-27, 2014
Sheraton Waikiki - Honolulu, Hawaii
http://www.psam12.org