

From the Editor's Desk...

JSS Technical Editor
C. G. Muniak Ph.D.



Model-Based System Engineering

Rex Gordon, our VP for International System Safety Society History, is stepping down so that he has time to complete a comprehensive family history project. For the past few years, Rex has written articles that have given readers of *Journal of System Safety (JSS)* insight into key historical developments in the system safety engineering profession and the individuals responsible for those achievements. Rex has also provided a good deal of wisdom and advice to the Society's Executive Council. Although Rex will no longer contribute articles on a regular basis, he will remain available as a resource to us. For this, we are grateful.

I recently attended an International Council on Systems Engineering (INCOSE) presentation by Troy Peterson. INCOSE has made it one of their strategic objectives to accelerate the transformation of systems engineering into a model-based discipline known as Model-Based System Engineering. INCOSE views this objective as an extremely high priority and drove this point home by using the famous W. Edwards Deming quote: "It is not necessary to change. Survival is not mandatory." The first technical paper in this issue, "Model-Based System Engineering and Software System Safety" by Barry Hendrix and Saralyn Dwyer, offers some insight into this subject from a system safety point of view.

Our second technical paper, "How Safe is Safe Enough? Acceptable Safety Criteria from a Legal and Engineering Perspective" by Martin Chizek, describes the balance of engineering risk and legal liability. It includes an interesting discussion of the Toyota unintended acceleration problem.

The third technical paper, "Don't Turn a Blind Eye to Safety: Protecting Personnel from Harmful Lasers" by Anish Donda, discusses safety precautions that must be taken to adequately protect personnel when operating and testing lasers in a free space environment.

In his TBD column, Charles Hoes examines the question of what makes the system safety profession "special" or different from other approaches to achieving safety.

David MacCollum, in his Design-Based Safety column titled "Design is the 'Holy Grail' of Safety," discusses some interesting historical aspects of product liability and design versus behavior-based safety.

In the System Safety in Healthcare column titled "The Right and Wrong Ways to Perform Failure Mode and Effects Analysis (FMEA)," Dev Raheja and Dr. Maria C. Escano discuss Failure Mode and Effects Analysis (FMEA) as a risk analysis tool for proactively identifying risks in any process.

Finally, you'll find our coverage of the 2017 International System Safety Conference, along with information about our speakers and a listing of those who won awards and other recognition. I would also like to take the opportunity to remind you that it's not too early to be thinking about attending the 2018 Conference, which will take place in Phoenix, Arizona. We'd love to see you there, and want to hear what you have to offer.

I welcome your comments, letters to the editor and article submissions. Please email me at cmuniak@stevens.edu.

Regards,
Chuck

We Want to Hear from You!

Journal of System Safety is seeking papers and articles on topics including the following:

- Explosive Safety
- Nuclear Safety
- Hazardous Material Management
- Chemical Safety
- Biotech Safety
- Safety Management Issues
- Human Error
- Software Safety
- Safety-Critical Processes
- Lessons Learned
- Industry Book Reviews

Please send summaries or abstracts to Chuck Muniak, Technical Editor, at journal@system-safety.org.