



# From Our Readers

In the Charles Hoes article “TBD regarding Risk Assessment” the sample risk assessment matrix and his explanation of how the chart can be used to assign “risk levels” is on par with the basics of the risk management process generally used on programs. Hoes is correct in pointing out that the use of the matrix or a similar risk chart for program risk prioritization would be a mistake. Within the risk management process, once a risk is assessed, program risks should be prioritized based upon program priorities and not just their risk level. Program priorities are usually characterized in terms of cost, schedule, and technical performance.

A risk assessment matrix is nothing more than a map containing a complete set of risk values. Its purpose is to show there is a relationship between risk probability and risk severity so that each risk can receive an assessed ranking (i.e., low to high, green to red, or a numerical value). The assessed level of concern can then provide visibility for both the decision makers and the other stakeholders. Using a risk value for each risk gives all stakeholders an equal understanding of the potential threat level per risk. More importantly the measure can assist senior leaders during their review of risk items to implement control actions in a timely fashion.

Hoes’s idea of consilience, “the agreement from different disciplines” in forming an opinion makes good sense when assessing risks. However, his recommendation to drop the use of the matrix entirely and in its place provide a “well thought out rationale statement and studies” would likely bring misconceptions and confusion. A risk statement in place of a conventional risk value would likely be perceived differently by the stakeholder community. Some individuals, interpret-

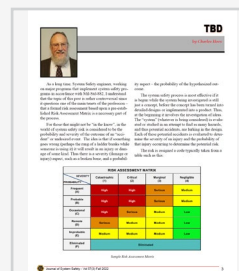
ing the risk to be important while others interpreting the risk as low consequence. Conventional risk rankings ensure all stakeholders interpret threats equally by use of an agreed to risk assessment matrix.

With respect to system safety, engineers must be cautious not to identify or spend time managing the occurrence of “extremely unlikely risks”. Risks that fall into this bin are those having an extremely low level of probability, but which could theoretically occur. Studying and managing risks is a time-consuming task and prudent engineers must have a grasp of when to formally pursue them as well as when to shelve them. It has been my observation that some system safety programs left unchecked, spend an inappropriately large amount of effort managing “extremely low probability” system safety risks. This is costly to the program in terms of dollars, resources and loss of reputation among the other engineering disciplines. Moreover, the end-user will unknowingly operate in suboptimal conditions given that higher probability threats may not have been given their due attention. 🚫

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| RISK ASSESSMENT MATRIX |              |             |
|------------------------|--------------|-------------|
| astrophic (1)          | Critical (2) | Margin. (3) |
| High                   | High         | Serious     |
| High                   | High         | Serious     |
| High                   | Serious      | Medium      |
| Serious                | Medium       | Medium      |
| Medium                 | Medium       | Medium      |
| Eliminated             |              |             |

## Read the Original Column



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