function timing, and so on.

8. *Effect* This column identifies the effect and consequences of the hazard, should it occur. Generally, the worst-case mishap result is the stated effect.

9. *Causal Factors* This column identifies the causal factors involved in causing the functional failure and in causing the final effect resulting from the failure.

10. *Initial Mishap Risk Index (IMRI)* This column provides a qualitative measure of mishap risk for the potential effect of the identified hazard, given that no mitigation techniques are applied to the hazard. Risk measures are a combination of mishap severity and probability, and the recommended values from MIL-STD-882 are shown below.

Severity	Probability
1: Catastrophic	A: Frequent
2: Critical	B: Probable
3: Marginal	C: Occasional
4: Negligible	D: Remote
	E: Improbable

11. *Recommended Action* This column establishes recommended preventive measures to eliminate or control identified hazards. Safety requirements in this situation generally involve the addition of one or more barriers to keep the energy source away from the target. The preferred order of precedence for design safety requirements is as shown below.

Order of Precedence
1: Eliminate hazard through design selection
2: Control hazard through design methods
3: Control hazard through safety devices
4: Control hazard through warning devices
5: Control hazard through procedures and training

12. *Final Mishap Risk Index (FMRI)* This column provides a qualitative measure of mishap risk significance for the potential effect of the identified hazard, given that mitigation techniques and safety requirements are applied to the hazard. The same metric definitions used in column 10 are also used here.

13. *Comments* This column provides a space to record useful information regarding the hazard or the analysis process that is not noted elsewhere.

14. *Status* This column states the current status of the hazard, as either being open or closed. This follows the hazard tracking methodology established for the program. A hazard can be closed only when it has been verified through analysis, inspection, and/or testing that the safety requirements are implemented in the design and successfully tested for effectiveness.

Note that in this analysis methodology, *every system function* is listed and analyzed. For this reason, not every entry in the FHA form will constitute a hazard, since not every function is hazardous. The analysis documents, however, that all functions were considered by the FHA. Note also that the analysis becomes a traceability matrix, tracing each function and its safety impact.

In filling out the columnar FHA form, the dynamic relationship between the entries should be kept in mind. The hazard, cause, and effect columns should completely describe the hazard. These columns should provide the three sides of the hazard triangle: source, mechanism, and outcome. Also, the FHA can become somewhat of a living document that is continually being updated as new information becomes available.