

SPE WORK SHEET AID

SPE RISK ASSESSMENT MODEL WORK SHEET

The SPE model assesses risks for specific hazards, such as those involved in launching or recovering a small boat or aircraft, by determining risk as a function of severity, probability, and exposure; i.e., $Risk = f(S,P,E)$. This model uses this formula:

$$Risk = Severity \times Probability \times Exposure$$

Severity: Severity is an event's potential consequences measured in terms of degree of damage, injury, or impact on a mission. Should something go wrong, the results are likely to occur in one of the following areas:

- Injury or Death
- Equipment Damage
- Mission Degradation
- Reduced Morale
- Adverse Publicity
- Administrative and/or Disciplinary Actions.

Severity can vary from 1 to 5:

- 1= None or slight
- 2= Minimal
- 3= Significant
- 4= Major
- 5= Catastrophic

Probability: Probability is the likelihood that the potential consequences will occur.

Probability can vary from 1 to 5:

- 1= Impossible or remote under any conditions
- 2= Unlikely under normal conditions
- 3= About 50-50
- 4 = Greater than 50%
- 5= Very likely to happen

Exposure: Exposure is the amount of time, number of occurrences, number of people, and/or amount of equipment involved in an event, expressed in time, proximity, volume, or repetition.

Exposure can vary from 1 to 4:

- 1= None or below average
- 2= Average
- 3= Above average
- 4 = Great

Risk: By computing the level of risk, we can evaluate its potential impact on mission effectiveness and execution. After computing the risk values using the formula **Risk = S x P x E**, we need to control substantial to very high values:

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Values	Degree of Risk	Guidance
80-100	Very High	Discontinue, Stop
60-79	High	Correct Immediately
40-59	Substantial	Correction Required
20-39	Possible	Attention Needed
1-19	Slight	Possibly Acceptable

After computing the risk levels for each hazard identified, we can order hazards from the highest to the lowest risk to focus first on the areas of most concern in conditions of limited resources.