

## ARMS Frequently Asked Questions (FAQ)

1. *We are preparing to introduce a Safety Management System (SMS) so introducing a new risk assessment system at the same time is extra work that we would prefer to avoid. Why introduce a new method of risk assessment now?*

Risk Management is a fundamental element of any SMS. A great many aviation organisations do not have the formal risk assessment processes required in place yet, or the current process is not producing useful results. Hence this is an opportune time to introduce ARMS which is a robust risk assessment methodology and integrates smoothly within the SMS.

2. *Exactly where in an SMS is risk assessment required?*

Most of the SMS requirements for Risk Assessment fall under the *Safety Risk Management* component of SMS. Organisations are required to identify Hazards and manage the risk associated with those hazards. In order to manage risk it is necessary to be able to measure it in a consistent and objective manner. This quantitative risk assessment needs to be made on reported safety events and other sources of safety data. (See sections 4.1 and 4.8 of the ARMS document). In addition the *Safety Assurance* component of an SMS requires that a Safety Assessment is performed in advance of any planned changes to the operation that could affect safety, in order to ensure that safety is maintained at or above the required level. Risk assessment of various potential scenarios is a required part of any Safety Assessment. (See section 4.10 of the ARMS document). Finally, the results of risk assessments are fundamental to the *Safety Performance Monitoring* element of SMS.

3. *Why do I need a new method for risk assessment? Aren't the current methods OK?*

The most common approach to risk assessment in aviation has been to use the classical risk formula i.e. *severity x likelihood* to create a two dimensional matrix that guides the risk tolerability judgment. In trying to give values to *severity* and *likelihood*, the analyst has to answer the questions: “severity of what?” and “likelihood of what?”. Unfortunately different analysts tend to answer these questions differently leading to inconsistent results. In addition the effectiveness of existing *Risk Controls* is an extremely important consideration in trying to measure risk. The simplistic *severity x likelihood* formula does not take the existing (nor potential) Risk Controls into account in a proper manner. This is primarily due to the lack of a robust conceptual framework which has resulted in this and other inherent problems in current methods being understated. (See sections 2.2 and 6.5 of the ARMS document).

4. *ARMS seems complicated. Is it?*

ARMS is no more complicated than any of the current methods of risk assessment. In fact it simplifies the risk assessment process by splitting it into more easily understood parts. It takes into account the effectiveness of existing *Risk Controls* which is an extremely important consideration in trying to measure risk. The method is based on a logical framework which provides greater clarity of exactly what is being risk assessed and how. The first users of ARMS report time savings due to being able to better identify safety events and issues that really matter.

5. *Is the ARMS method applicable to my organisation?*

ARMS was primarily developed to address the measurement of *flight safety* risk. However the concepts of Event Risk Classification (ERC) and Safety Issue Risk Assessment (SIRA) can be applied to non-flying aviation organisations and other types of risk. (See Chapter 5 of the ARMS document which addresses customisation).

6. *I would like to join the ARMS Working Group. Is the group still running and can I join it.*

The ARMS Working Group has finished its work and no more development work is planned.

7. *I have some comments and suggestions to make. How do I make them?*

All comments and suggestion on the ARMS risk assessment processes and documents are very welcome and should be made using the e-mail address below.

8. *Is there any support available to those who may wish to introduce the ARMS process*

The ARMS toolkit should enable many organisations to implement the new risk assessment process. Any further queries or requests for support can be addressed to the e-mail given below, through which the ARMS WG members may be able to offer help in implementing this new methodology.

**Did not find the answer to your question?**

**Want to send a comment or a suggestion to the ARMS Working Group?**

**Please e-mail: [armswg@gmail.com](mailto:armswg@gmail.com)**