

So, you want to run an exercise?

Tony Callan introduces the first in a series of articles on exercise management

Abstract

A substantial amount of resources and effort are committed by agencies and organisations at all levels to the design, conduct and evaluation of emergency management exercises. Many of these exercises are heralded as great successes, while others fall open to criticism for a whole range of reasons.

This article looks at the exercise management process and proposes a model for the design, conduct and evaluation of emergency management exercises.

Introduction

As an emergency manager, who has been involved in the design, conduct and evaluation of exercises for more than 20 years, I am regularly approached by others seeking assistance to 'run an exercise'. Often these people have only participated in or observed an exercise and now fill a role in their organisation that is required to conduct exercises.

My first question to them is usually phrased along the lines of, 'so, you want to run an exercise?' This will almost certainly receive a hesitant 'yes' or other affirmative response.

The second is an open question of 'what did you have in mind?' This receives various types of responses, however, the most common reply will include a detailed description of a well thought out and elaborate scenario. Examples have included planes crashing into harbours, wide spread epidemics or contamination events infecting many states and disastrous natural events wiping out whole communities.

Once I get the scenario off their chest, it is time to get down to what it is that they really want to achieve by running an exercise. Questions like 'why are you conducting an exercise', 'what is the **purpose or aim** of the exercise?', 'what **objectives** do you hope to achieve?', 'what is the **scope** of the exercise?', 'what **factors** might assist or limit the conduct of the exercise?' and 'who are the **participants**?' need to be clarified before one can truly begin to look at the design, conduct and evaluation of an exercise.

This article will look at what is required to design, conduct and evaluate an exercise. It will provide an overview of an exercise management process and is the first in a series of articles on exercise management. Future articles will take a look at:

- Identifying and analysing why exercises are conducted
- Various types of exercises and their application
- Planning and documenting an exercise
- Conducting an exercise
- Evaluating an exercise
- Why do we exercise?

Exercises by themselves are not the panacea to all emergency management problems. They are, however, a legitimate element of any program of continuous improvement or emergency preparedness.

Continuous improvement within an agency, organisation or group of organisations, such as the emergency management communities, will almost certainly include elements of assessment, planning, training, education, resourcing and evaluation. In the absence of an actual event or response, exercises have proven to be an effective way of evaluating and improving our emergency management arrangements at all levels.



Preparing for an exercise.

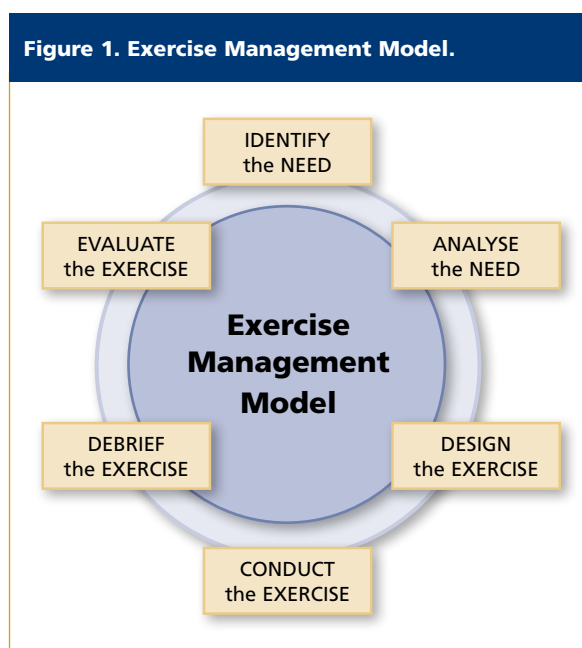
Tony Callan.

Emergency management exercises have many uses. These include, but are in no way limited to; testing plans, evaluating arrangements, evaluating equipment, practising procedures, training people and/or demonstrating capability. Whatever the purpose of an exercise, it is essential to ensure that those involved at all levels and at all stages through the exercise process are well aware of why we are conducting a particular exercise.

The exercise management model

The success of any exercise will almost certainly be enhanced by the adoption of a structured approach to its design, conduct and evaluation.

The Exercise Management Model provides such an approach. It is taught at the Emergency Management Australia Institute (EMAI) in its Exercise Management Course and has been adopted by a number of Australian agencies as a method for the design, conduct and evaluation of exercises. The Exercise Management Model is consistent with the approach adopted by the Australian Defence Force and the methodology adopted by the US Department of Homeland Security within its Homeland Security Exercise and Evaluation Program (HSEEP).



This model takes a cyclical approach to exercise management, whereby one phase is dependent upon the substantial completion of the previous and the outcomes of an exercise can contribute to the inputs or development of future exercises.

The elements of the Exercise Management Model are discussed below.

Identifying and analysing the need

The first step in the process is to ask ‘**why are we conducting an exercise?**’

Exercises should begin with a specific **need** to test, evaluate, assess, practise, train or demonstrate aspects of policy, plans, procedures, systems, training of individuals or group performance. This need may have been identified from past planning, training, exercises, actual responses or as a legislative or regulator requirement, such as with the conduct of airport exercises.

Once it is determined *why* we are conducting an exercise, this can be analysed to determine the aim and objectives to be achieved by the exercise.

The aim should tell us, in a short concise statement, why we are conducting the exercise. An example might be:

The aim of this exercise is to test the effectiveness of the response arrangements documented in the xxx Airport Emergency Plan.

The exercise **objectives** will build on the aim and provide an indication as to the expected outcomes from the exercise. Building on the aim stated above, examples of objectives may include:

- Assess the ability of emergency services to perform their prescribed roles during the response to a large aircraft incident on the xxx Airport.
- Assess the ability of the xxx Airport owners to provide access to emergency services and support their needs during the response to a large aircraft incident on the Airport.

As a rule of thumb, the number of objectives for an exercise should be kept to less than five. In a multi-agency exercise, each agency involved may wish to identify their own agency objectives. If allowed, these must be consistent with the overall objectives of the exercise. For example a response agency wishing to **assess its response times** to the airport, may be outside the scope of the exercise described above.

Exercise managers need to be mindful of how they will identify if the exercise objectives have, or have not, been achieved. An effective way of doing this is to identify a number of actions or tangible outcomes that can be observed or measured which indicate an objective has been met or not met. These **performance measures** or **performance indicators** should be documented and agreed upon, so it is clear what is expected of participants during the exercise.

Design the exercise

Once the aim and objectives have been identified it is time to look at the scope, type and participants for the exercise.

The **scope** will identify what is included in the exercise and may also identify what is not included in the exercise. It is important that this be established early in the design phase, as there is a tendency for other influences to impact on the scope. Any variation to the scope may mean that the aim and objectives need to be reviewed. (This is called “scope creep” and at best should be avoided.) For example:

The scope of the exercise will be limited to:

- The response arrangements documented in the xxx Airport Emergency Plan, and
- Those agencies listed as having responsibilities during the response to an airport emergency.

There are three broad **types** of exercise used by emergency managers. These are discussion, functional and field exercises. Each of these has a number of variations and it is important to select the type of exercise that will best suit the aim, objectives and scope of a particular exercise. For example a discussion exercise would not be suitable for assessing the performance of a particular role. In the airport exercise example, if one of the objectives was to familiarise emergency services with their roles during a response, a discussion exercise may be appropriate.

The **participants** and their level of participation need to be carefully assessed. Exercise managers need to pay particular attention to who should be involved and their particular role during an exercise. Once agreed, details need to be clearly communicated during the design of the exercise and articulated in exercise documentation.

An issue with emergency management exercises is that conflicting commitments can often limit participation. To avoid this, participants need to be engaged at the earliest opportunity and continually informed of developments during the design phase of the exercise.

Once the exercise aim, objectives and scope have been endorsed and the type of exercise and participants agreed, it is time to give consideration to the detailed scenario and look at what needs to be done before conducting an exercise.

The size and complexity of an exercise will indicate how much preparation is required. A simple exercise can be designed by an experienced exercise manager, however, more detailed exercises may require a dedicated team and many months of preparation. Exercise design will also require a range of meetings and detailed documents. One thing is certain, exercises do not occur by osmosis and the amount of time and effort applied to the preparation will almost certainly contribute to the success of the exercise.



Tony Callan.

Public communication of an exercise is essential.

Conduct the exercise

Exercise managers often focus on the exercise itself as the end state. The reality is that the conduct of the exercise includes those activities that involve the participants and exercise staff in the lead up to the exercise, during the exercise and immediately after the exercise.

Before the exercise, it is essential to ensure that all participants and exercise staff are aware of what is required of them during, and immediately after, the exercise. This should occur by way of written information in advance of the exercise and a briefing immediately before the exercise. Suggested topics for the briefing include:

- Exercise aims and objectives
- Roles and responsibilities during the exercise
- Information, communication and/or technology systems
- Action in the event of unforeseen circumstances
- Post exercise requirements
- Appropriate parts of the scenario

In addition to briefing participants, sufficient time should be allowed to establish and test the facilities and the resources required to conduct the exercise.

If careful attention is paid to pre-exercise activities, all will be in place for person appointed to the role of Exercise Director to commence the exercise.

During the exercise, activities should occur in a predetermined way. This will commence with the Exercise Director starting the exercise, right through to its termination. These activities should occur in accordance with a pre-determined script, often referred to as the ‘master schedule’. The master schedule should detail when particular activities are expected to take place, when exercise inputs should occur and if appropriate, information about the actions or responses expected from participants.

After the exercise, it is essential to ensure that all participants, directing staff and role players are aware that the exercise has concluded. A typical way to do this is to conduct a 'hot debrief' to wrap up activities and to disengage participants and staff from the exercise activities. A hot debrief should bring the exercise scenario to a logical conclusion and advise those involved of any follow up activities, such as formal debriefs and evaluation activities. In addition to this, any resources, facilities or sites used during the exercise need to be returned to their pre-exercise state.

Debrief the exercise

All exercises benefit from a formal debrief at some stage following the conclusion of the exercise. The aim of such is to identify whether or not the exercise met its aim and objectives. It is also an opportunity to allow participants and participating organisations to reflect on their performance during the exercise.

Debriefs have typically look at what went well, what could be improved and recommendations that should be considered for future activities. More recently, there has been an inclination for agencies to replace debriefs with a process referred to as an After Action Review (AAR). While the concept of an AAR sits well in some circumstances its purpose differs from that of a debrief and those responsible for conducting exercises are encouraged to include some form of formal debrief, as described above, following their exercise.

When conducting debriefs, it is essential that the outcomes are recorded and made available to those involved. These outcomes will contribute to any review or evaluation process applied to an exercise.

Evaluate the exercise

I have been involved in substantial exercises where the only form of evaluation was a quick debrief conducted immediately following the exercise. A written report may or may not have been issued and little or no follow-up action occurred. While this may be appropriate for small scale exercises, there is certainly a need to ensure that the outcomes of exercises are given the due degree of consideration they deserve.

To this end it is recommended that a process for evaluating an exercise be considered right from the very first exercise planning meeting. The evaluation process may run in conjunction with the exercise planning process and those appointed to evaluation positions should wherever possible, work independently of those planning and conducting the exercise. The evaluation process should include both; how the participants respond to the developing scenario and also the way in which the exercise was designed and conducted. The latter point is often overlooked in the evaluation process and requires greater attention by exercise managers.

An evaluation process needs to be useful, accurate, ethical, feasible and cost effective. The Australasian Evaluation Society provides prudent information and guidance on evaluation that should be considered by exercise managers.

The outcomes of the exercise evaluation process should ultimately contribute to the way in which future exercises are conducted and the way in which emergency management agencies manage their responsibilities in the real event.

Conclusion

The amount of time, effort and resources that are required to design, conduct and evaluate an effective exercise should not be underestimated. All but the simplest of exercises will require a team of people dedicated to the tasks required to conduct an exercise. This team needs to work in a cohesive manner and have a common understanding of the requirements of the process adopted, such as the exercise management model described above.

The exercise design needs to be centred around a clearly defined aim, objectives and scope. The exercise manager should make use of the aim, objectives and scope to ensure that their exercise is not derailed by an overly ambitious scenario or other agenda.

References

- Australian Evaluation Society (2006), *Guidelines for the Ethical Conduct of Evaluation*, Website viewed July 2006, www.aes.asn.au
- Australian Defence Force (2004), *Exercise Planning and Conduct*, Commonwealth of Australia
- Australian Government (2007), Australian Government Exercise Management Course, workbook and instructor notes.
- Emergency Management Australia (2001), *Australian Emergency Manual Series, Managing Exercises*, Commonwealth of Australia
- Homeland Security (2007), Homeland Security Exercise and Evaluation Program (HSEEP), *Exercise Planning and Conduct*, U.S. Department of Homeland Security

About the authors

Tony Callan has been involved in emergency management for more than 25 years, either as a responder, or in a management role. He currently works with the Australian Government Department of Agriculture, Fisheries and Forestry where he is responsible for ensuring that the Department has arrangements in place for managing its responsibilities during the response to emergencies that impact on primary production industries. Throughout his emergency management career, Tony has also been involved in the design, conduct and evaluation of exercises from a local level, right through to national exercises such as Exercise Minotaur (2002) and Exercise Eleusis '05.