The Future of Simulation in CFA

Simulation Discussion Paper

Produced by: **Incident Management Team Training Project**

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For any matters relating to this publication, contact:

Alen Slijepcevic

Deputy Chief Officer Capability & Infrastructure
Fire & Emergency Management
8 Lakeside Drive East Burwood VIC 3151

Governance Details

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Document Sponsor	DCO Capability and Infrastructure
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1. Executive Summary

Simulation is widely used in CFA for training, exercising and community engagement. It is also used to support operational decision making and has a role in organisational planning. However, the many existing simulation programs are not viewed holistically and there is not a coherent management approach.

The CFA Simulation Strategy Project will identify the future vision for the delivery, support and management of simulation and propose a path to achieving that vision.

This discussion paper is the second document in the development of the CFA Simulation Strategy. It follows the background research document that set the scene for the current use of simulation within CFA and comparable industries.

This paper combines feedback from initial stakeholder interviews with descriptions of the current CFA environment to identify some key themes that will determine the direction of the simulation strategy. These include:

- **The shift towards a multi-agency and multi-hazard environment**. The Victorian emergency services sector has been directed to move towards multi-agency and multi-hazard operations, which will affect the way agencies train and use simulation. Changes in weather, land use and development will change the nature and frequency of hazards, which will also affect the demand for simulation.
- **The need for more contemporary and effective engagement with communities in understanding and managing their risk**. CFA has previously only used simulation in limited ways for community programs. The change in priority will see an increase in demand for simulation and expectations for greater sophistication and responsiveness.
- **The demand for flexible and accessible training and exercising**. Simulation is in demand as a training tool to help develop skills and provide opportunities to gain experience and improve readiness.
- **The increasing community expectations of operational performance**. Recent inquiries and government policies have highlighted the need for CFA to demonstrate its professional approach to ensuring its members are prepared and have the expertise to meet community expectations. Simulation offers the opportunity for members and teams to practice to achieve the level of mastery required.
- **More effective use of funds and resources**. Funding pressure and changes in demographics, settlement and the workforce will affect the composition of brigades and the availability of resources across the state. Simulation may offer a cost effective to maintain the level of capability required to continue delivery of services.
- **The professionalisation of the simulation industry**. Simulation is becoming recognised as a discrete body of knowledge with an emerging community of practice and set of guiding principles. The skills of facilitators are recognised as applicable to many industries and this offers the potential to attract new members and offer existing members alternative opportunities.

This paper will be distributed in conjunction with a survey to elicit feedback on the identified themes. The feedback will then be analysed to develop a proposed strategy.

2. Background

2.1 What is Simulation

A simulation is “the purposeful imitation of the operation of a real world process or system over time” *Oxford English Dictionary*

Simulations are simplifications, abstractions or distillations of reality that can be used to illustrate different elements of that reality in different contexts for different uses. Simulation offers the opportunity to observe characteristics of the system being simulated in a safe, contained, comfortable, repeatable, controllable, measurable environment. Unusual situations can be simulated that would otherwise be too rare to provide opportunities for observation and dangerous situations can be simulated in relative safety.

2.2 Simulation at CFA

Simulation in the form of drills, TEWTS, map exercises, burns tables and field exercises have been a core element of training and education in organisations such as CFA since they began. In recent years, computer simulation has been added to the suite of tools available for training, for example, the Vector Tactical and Vector IMT computer simulation systems have been in use since 2006.Demand for all forms of simulation is increasing, and a number of new initiatives, including and extensive program of mobile training props, have commenced.

Simulation is also finding new applications in community resilience building programs to illustrate fire behaviour and risks and to stimulate discussion of response and mitigation plans. This includes many of the same tools used for training including the use of computer based simulation.

Fire spread models, chemical plume models and other predictive simulation are routinely used for operational decision support and planning.

More information on simulation in CFA can be found in the CFA Simulation Strategy Background Document.

2.3 Simulation Industry

Simulation is increasingly being treated as a body of professional knowledge along the lines of project management and other specialised skill sets. The industry professional body, Simulation Australia, is working with various industries to identify skills and qualifications that support simulation and is embarking on a program of certification following similar initiatives in the USA.

Industries such as defence, mining and health make considerable use of simulation and have developed practices and approaches that CFA can learn from. Within CFA, a number of stakeholders have commented that the skills required to develop scenarios and facilitate simulation and exercises are different to those required for operational leadership and technical instruction.

2.4 CFA Simulation Strategy Project

The CFA Simulation Strategy Project has been established to identify current and future needs for simulation and develop a strategy for the management and delivery of simulation across CFA.

The scope of this project focuses on CFA's core business responsibilities. However, it will align with relevant developments on the broader emergency management environment.

The project will deliver three products:

- A Simulation Background Document that comprises a survey of existing simulation use within CFA and a review of relevant literature and comparable industries.
- A Discussion Paper that summarises initial stakeholder analysis and identifies some key drivers for change.
- A Strategy that identifies the future direction for simulation and the pathway to achieve that goal.

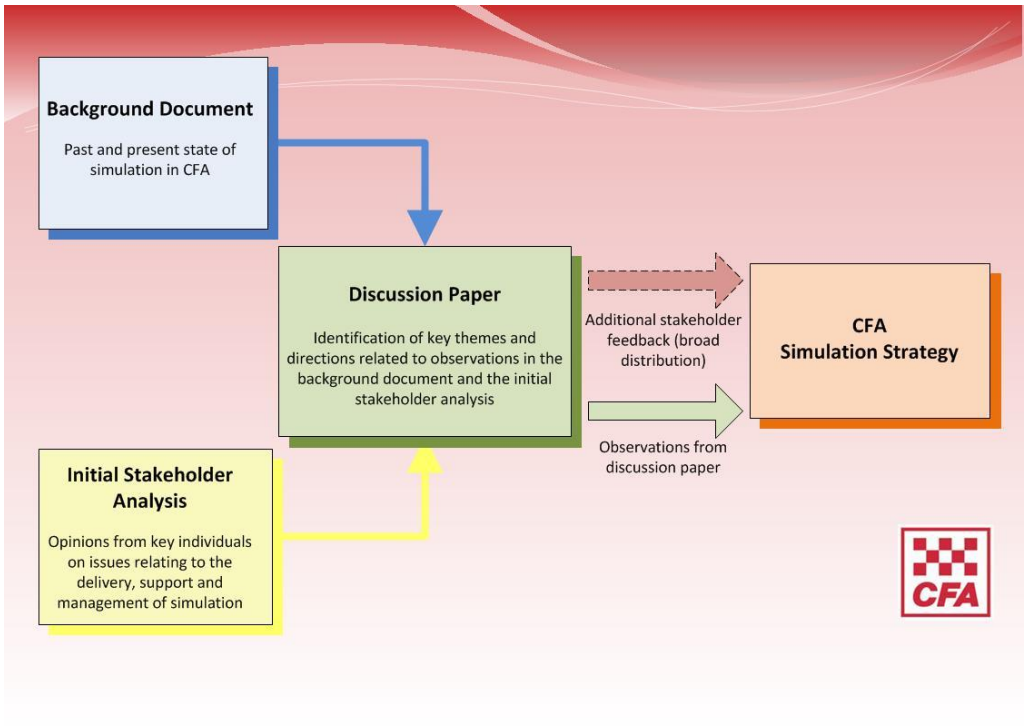

Figure 1 Approach for Developing the CFA Simulation Strategy

3. Current Context

3.1 Training

CFA makes use of a number of simulation systems for basic and core skills. This capability has developed organically and with little coordination. What coordination does exist appears largely due to individuals and personal networks rather than a coordinated design. The CFA Training Strategy is a move towards consolidating the CFA approach to training which will significantly improve this situation.

The computer simulation team is actively involved in supporting computer based training in districts. This is well regarded and most districts attempt to use all of their allotted simulation sessions. CFA is widely regarded as a leader in this area amongst inter-state fire agencies.

The existing computer system has some significant limitations regarding the range of scenarios it can support as it is restricted to structural fires. The team is also limited in the number of sessions it can support each year.

The demand for computer simulation has grown steadily, from 273 participants in 2007 to 395 in 2009. In 2011, two additional technicians were added to the team, under the Incident Management Team Training Project (IMTTP), which resulted in the number of participants increasing to 805 in 2013, most of whom were volunteers. However, funding for the two technicians will cease with the closure of the IMTTP, which will reduce the delivery capacity of the team back to 2009 levels.

3.2 Exercising

All districts run a number of pre-season exercises to both test facilities and prepare Incident Management Teams (IMT). The types of simulation vary from map based exercises to computer supported exercises.

Brigades run small readiness exercises and drills and many groups run combined exercises as part of their pre-season preparation. This not widespread or consistent and there is limited oversight of the process.

In response to the VBFRC, IMT exercises have come under greater scrutiny and are now mandated. CFA recognises that exercises are a critical element in preparing the organisation and its members to respond to emergencies. In 2012, the IMTTP ran a series of computer supported exercises, called Phoenix Parsons, aimed at assisting existing level 3 incident controllers to meet interim accreditation. This activity demonstrated the utility of IMT exercising and has stimulated an increased demand. In 2013, a further six computer supported exercises were conducted with regions supplementing this with additional non-computer exercises.

3.3 Community Resilience

Community resilience exercises have increased in recent years. In part this is a response to government direction and in part community motivation. They primarily take the form of facilitated discussion, map based scenarios and hypotheticals, although some activities have been supported by computer based simulation. The limiting factor for these activities is the time it takes to develop community specific scenarios and the availability of suitable facilitators.

Other community programs, such as Fire Ready Victoria, use desktop exercises and

street walks to identify risks and discuss mitigation strategies. The CFA Community Education Coordinators and other team members work with one another to exchange ideas, but are largely able to tailor the program to their local communities. They often develop their own tools and props, such as maps and aids.

3.4 Operational Support

CFA makes use of fire spread simulation to help predict risks of going fires and at risk areas. At present this has some significant limitations regarding what fuel types are supported. It has no ability to model suppression efforts, so its utility for supporting course of action assessment is very restricted. It also requires specialist operators to use and interpret the output.

CFA also has simulators for chemical plumes, but these also require dedicated specialists to use.

The use of simulation to support decision making and course of action analysis is rudimentary and based on the experience and knowledge of individual Incident Controllers and staff.

3.5 Summary

In many respects, CFA is a mature user of simulation. Most members have had multiple experiences using simulation and generally view it favourably. However, the use is inconsistent, poorly evaluated and largely determined by what individual brigades, groups and districts can readily access. There are a number of limits to brigade access depending on the region and characteristics of the brigade. These include:

- Some groups have limited access to training grounds due to scheduling, cost or distance.
- Mobile facilities, such as mobile props and computer simulation, are limited due to the low number of such products.
- Access to computer simulation is also limited because operators must travel with the computer system which incurs travel and accommodation costs.
- Technology, such as the internet, is limited in some brigades.
- The availability of instructors and facilitators is variable across the state, as are the technical skill sets they can support.

Many members have developed useful tools, such as scenario templates, exercise writing guides and checklists. This work is often duplicated in different districts, and, while members are willing to share their ideas, there is limited opportunity to do so.

The demand to use simulation for community engagement is expected to grow and this will place additional strain on the ability to support simulation, particularly computer based simulation. The use of predictive models to support risk assessment and decision support is also expected to increase.

4. Drivers and Challenges

4.1 Toward a Multi-Agency and Multi-Hazard Environment

Situation	Stakeholder Perspective
▪ Changes in the organisation of the Emergency Services in Victoria are focused on the multi-hazard and multi-agency approach. Simulation and exercising need to operate in this setting by supporting a range of hazards. ▪ The CFA Delivery Strategy notes the expectation of an increase in extreme weather conditions, occurring more frequently, lasting longer and being more intense. The effect on CFA includes: - longer bushfire danger period, and shorter off-season training period - more frequent days of very high and extreme fire danger with likelihood of more and longer call outs - more frequent floods and storms further extending the response period within the year - more frequent heatwaves and drought affecting rural communities and potentially water supplies.	▪ Stakeholders at senior levels expressed the view that IMT exercises should routinely be multi-agency. ▪ However, level 3 exercises tend to retain a focus on wildfire because most other hazards do not last long enough to sustain a comprehensive exercise. ▪ At regional level, the emphasis is broader and includes other organisations, such as utility services, local council, community organisations, and aid organisations. ▪ Stakeholders at all levels are acutely aware of the implications for the training calendar as the fire danger period lengthens and brigades respond to more incidents throughout the year. ▪ Core training for CFA members needs to expand to cover other hazards, while retaining an emphasis on local risk profiles.

Analysis

CFA skills training has been focused on fire fighting and the simulation systems and scenarios reflect that focus. The scope of training scenarios needs to expand to include hazards other than fire. Core skills such as communication, teamwork and leadership could be developed through scenarios based on a variety of hazards and situations.

The pool of CFA facilitators is almost exclusively focused on fire. They may either need additional training, or could be augmented by instructors from other agencies.

Cooperation with other agencies and organisations will be necessary to develop future simulation requirements. Sharing of facilities and equipment between agencies may provide cost effective means to deliver a broad range of learning and foster a joint approach to operations, but CFA also needs to be self-sufficient for most training requirements.

As CFA responds to more events throughout the year and for longer periods, simulation may offer a way to conduct short duration, high value training and preparation. Members will need to be ‘ready’ all year around, so the traditional approach to pre-season readiness activities will need to be reconsidered. Simulation that can be delivered at any time and in home locations will become more important.

This suggests that the demand for simulation will increase, particularly those forms that rely on centralised technical support or fixed facilities.

4.2 A Contemporary and Effective Engagement with Communities: Understanding and Managing Their Risk

Situation	Stakeholder Perspective
▪ The National Resilience Strategy emphasises the role communities play in their own hazard management and the importance of partnerships between agencies and community. It also identifies that communities and agencies all have roles to play in prevention and recovery as well as preparation and response. ▪ The Victorian Emergency Management Reform White Paper adds that local governments, aid organisations and other community based organisations need to be treated as partners in emergency management planning and exercising. Agencies have an important role to play in leading community awareness and education programs. ▪ CFA has initiated a number of community based planning activities that include elements of simulation, such as map based scenarios and virtual simulation, however they are limited by the number of trained facilitators. ▪ The growth in urban and peri-urban settlement will also see an increase in the number of households within the CFA footprint and a commensurate increase in the number of domestic and structural fires attended.	▪ Communities exhibit a significant 'half-life' effect as the time elapses after a major event. Simulation was proposed as a way to keep reinforcing the risk to ensure that the awareness stays fresh. ▪ Stakeholders from operations and community education consistently felt that the message to community is not confronting enough. A contrast was made with the TAC advertisements and other programs aimed at changing culture. Stakeholders called for a realistic 3D simulation of a serious bushfire, including noise, wind, heat and smell, to reinforce the risk and the disorientation of a real event. Comparison was made with a Cyclone simulator in Darwin. ▪ Community members will not travel for education programs. Education needs to be taken to them. ▪ However, not all homes and communities have access to high speed internet, so it is not possible to rely on computer based tools, or rely on web based delivery. Access to low technology tools, such as maps, remains important, as does the ability to use them effectively. ▪ Facilitators must be credible. They must have knowledge of fire behaviour and operations as well as expertise in using simulation. But, they must also be engaging and respond to the community concerns. ▪ More emphasis needs to be placed on supporting the preparation of vulnerable people. For example, simple props such as a smoke alarm on a pole could be used to show carers how to test alarms as part of the Home and Community Care program.

Analysis

The demand from government to be proactive in pursuing community resilience programs is likely to increase. As this priority is adopted, the community will expect more support from CFA for planning and prevention activities.

Simulation is a potentially powerful way to engage and influence the community. The quote “tell me and I forget, teach me and I may remember, involve me and I learn”[1] is particularly relevant to involving community in learning activities. Putting community members into a simulated situation as a means of illustrating a serious disaster, and having them experience what it is like to actually be involved in the disaster may be the only way to reinforce the message that “it could happen to you”.

This message will need to be accompanied by programs that help develop responses and plans. For example, simulation can be used to illustrate the strengths and weaknesses of various responses such as the traffic problems associated with late mass evacuations.

CFA needs to ensure that the requirements for community programs are considered in decisions to develop or acquire simulation systems and simulation delivery teams need to ensure they consider community resilience within their scope.

CFA is in a strong position to deliver community based programs. CFA members are inherently community members and typically play an important role in local communities. This relationship weakens in larger urban areas where there is less reliance on volunteers from the community.

Video games and computer based learning are now common ways for younger generations to learn. The community will expect these tools to be available. However, that type of technology becomes out-dated quite quickly, so it will require a program of continuous development.

Tools such as burn tables and other props are effective ways to demonstrate basic fire behaviour and will continue to have a crucial role to play. Map exercise, round table discussions, hypotheticals and other non-computer simulation has been shown to engage communities and generate the discussion of issues of significance to them. These approaches create the sense of partnership between CFA, other agencies, and the community that is needed to sustain improvements.

The use of simulation in any situation relies heavily on the guidance and skills of an experienced facilitator. This is particularly important for community based activities, where the community must be encouraged to take the lead in driving the activity.

[1] Generally attributed to Benjamin Franklin.

4.3 Demand for Flexible and Accessible Training and Exercising

Situation	Stakeholder Perspective
▪ The CFA Training Strategy sets the goal that "all members have a range of training and learning options available to them". This includes delivering training at times and locations convenient to members, appropriate use of technology, and expanding the use of simulation. ▪ The Jones Inquiry observed that "volunteers consider, as a core part of volunteering, the: - access to training - acquisition of new skills that enhance their role as a CFA volunteer, and - chance to maintain these skills in both real incidents and training simulations" ▪ The CFA Training Strategy notes that members want more "practice and hands on experience in realistic situations, guided by experienced people."	▪ "Time" was repeatedly raised as the crucial issue for members, particularly volunteers. Volunteers are reluctant to spend time travelling, and training needs to be "meaningful" to encourage them to attend. ▪ Simulation was reported as a draw card, as it is practical and members generally like to be active. However, there is an element of the membership cautious about the use of computers. This appears to be largely due to unfamiliarity, and in some cases poorly run activities in the past. ▪ Some new members have very limited experience of facing a serious fire. It was suggested that simulation could be used to show new members, and potential members what they might have to face. The addition of noise, heat, low visibility and other factors would contribute to creating a realistic experience. ▪ The comment was made that instructors tend to teach to a curriculum as that is all time allows. There is limited opportunity to go beyond the basics of core competencies to achieve mastery of skills and subject matter. ▪ An exercise is an opportunity for a potential candidate for a higher role to shadow a current practitioner to "try before you buy".

Analysis

Evidence from the use of Vector Tactical supports the belief that computer simulation is popular and demand is growing. Evidence from other fields, such as defence and health, suggests that as the user community grows in confidence and experience, they will demand more and be more specific in what they require. This helps determine requirements and priorities, but incurs increasing support, development and training costs.

Members are requesting access to computer based simulation that they can use in their own time to alleviate the necessity of relying on travelling to training grounds or the limited schedule of the existing computer simulation team. The technology exists to support this request, and it will only become cheaper and more capable. This would incur a training cost, both in initial training of brigade members and regional staff, and

ongoing refresher and update training.

Many members create their own training props and develop their own procedures for running map based activities and other forms on non-computer simulation. The mobile props program and the roll out of additional burn tables to the regions are providing more resources at the local level. This is also increasing the demand for experienced and competent facilitators.

As with any form of training, simulation based training must be based on a needs analysis and be integrated into a cohesive training program. Simulation based training and exercising needs to be focused on those areas that are high priority and/ or are not being addressed through other means. Decision makers must have a good understanding of the strengths and weaknesses of the various simulation systems available in order to assess whether simulation is an appropriate method to use. The training needs, and particularly the gaps, need to be used to define the requirements for future simulation systems. This is a significant management effort, currently only undertaken in limited isolated programs. The recently developed CFA Training Strategy is an important step in this process.

Ideally, simulation would support the full spectrum of training from basic skills, crew leadership, sector and division command up to IMT and even state level roles. However, the priority of effort in this task is unclear. There is the temptation to use simulation for those things that can easily be simulated without doing the research to determine what will deliver the greatest benefit. Evaluation of programs is needed to ensure that the goals are being met and to inform the continuous improvement process.

Simulation delivery needs to include a mix of technologies including simple computer based tools that brigade members can use themselves. This also needs to be supported through the production of guides, and other aids as well as technical support and ongoing training.

4.4 Increasing Community Expectations of Operational Performance

Situation	Stakeholder Perspective
▪ The Victorian Bushfires Royal Commission recommended that CFA conducts IMT joint training exercises and the Victorian Emergency Management Reform White Paper explicitly identifies simulation and exercising as "a safe environment in which people can rehearse their roles and test how different departments and agencies would work together in response to an emergency". ▪ Exercising is also identified as an important tool for sharing knowledge about critical infrastructure. ▪ The CFA Delivery Strategy notes that community expectation is changing as are the roles of the emergency services. ▪ The community also expects to be given clear guidance on how to respond to emergencies.	▪ Exercising needs to consider three requirements: the need to train new staff; the need to train for situations that can't be done another way; the opportunity to push an expert team to its limit in a safe environment where mistakes can be made and learned from. ▪ There is limited opportunity to concurrently exercise multiple layers of command, from crew leader through division and up to IMT. Computer simulation may offer the tools to do this without the need for a field exercise. There is currently a gap in level 2 exercising. ▪ There is a long lead time required to plan exercises and secure attendees. Cross-regional exercises are particularly difficult to coordinate. However, exercises can be cancelled at short notice. ▪ Exercises should use the normal operational systems available for real incidents such as the Incident Management System (IMS) and Fire Web. The inputs need to be realistic in order to create the right atmosphere that accurately represents what could be expected in reality.

Analysis

There is widespread understanding of the importance for exercising and practicing as a team. However, stakeholders reported a number of obstacles that inhibit running a comprehensive exercise program.

Building and maintaining the level of expertise and professionalism required to respond to level 3 incidents, over a sustained period, can take a career. CFA has a responsibility to do all it can to provide members willing to undertake those roles with all the preparation it can.

CFA also has a responsibility to the community to ensure that members performing those roles are up to the task. Exercising, therefore, must perform the dual role of equipping members with the skills and experience they need, but also testing the people, teams, facilities and procedures to ensure they can deliver the required service.

The IMTTP is a significant element in establishing this capability and in addressing the cultural changes needed to embed it.

All tiers of command, from crew leader to regional and state IMT, need the capability to be exercised in isolation and in combined exercises. The simulation capability to support this needs to be:

- flexible enough to encompass regional differences and priorities
- responsive to changes in priority, and
- scalable.

CFA does not have the capability to use computer simulation as a decision aid to analyse courses of action. This is routine in defence planning and simulation and modelling is also common place in many business and financial decision making processes. This has the potential to significantly improve the planning and management of incidents, but will involve a cultural change for CFA.

4.5 More Effective Use of Funding and Resources

Situation	Stakeholder Perspective
▪ CFA must operate within a prescribed budget and has a responsibility to ensure investment is based on a sound cost benefit approach. ▪ The Australian population is aging, with an expectation that by 2050 over 22% of people will be aged 65 or over. This will increase the demand for services in an emergency, but also reduce the size of the pool CFA can draw its operational members from. This is expected to be particularly pronounced in rural areas. ▪ As rural populations continue to decline in some areas, the viability of some brigades is questionable. ▪ The Jones Inquiry identified problems attracting and retaining younger members in some areas. Often, young adults leave rural towns for the cities to look for work or education. ▪ There are also changes in community attitude to volunteering. The Jones Inquiry observed that in the past, members joined the CFA to help the community, but younger generations want to know what they can get out of it.	▪ Operational staff noted that it is harder to secure funding for planning and conducting exercises. Organisations, such as local infrastructure providers, have traditionally participated in CFA run exercises, but the capacity and willingness of CFA to continue to fund these activities is declining. ▪ Can simulation based projects help to retain country kids and use their skills in the regions? ▪ For example, CFA could sponsor projects that country kids take to the city universities. ▪ Generation Y have high expectations to quickly succeed and rise through the ranks. They can be difficult to retain as volunteers because they move on so quickly.

Analysis

The CFA Delivery Strategy does a comprehensive job of addressing many of the issues facing CFA in the future. There is considerable potential for simulation to assist in many of the initiatives.

Simulation is sometimes promoted as a cost effective, or low cost means of delivering training and other activities. While this can be the case, some simulation systems and facilities can be quite expensive to develop and operate. The strength of simulation lies in the benefit side of the cost benefit calculation. Simulation offers the opportunity to gain and build experience that is otherwise not possible. The airline industry has been using simulation to produce pilots with hundreds of hours of experience in emergencies that they could not gain in any other way.

There are also potential benefits through economies of scale. While developing simulations can be time consuming and costly, the opportunity to then use and deliver those scenarios to many people at relatively low cost per participant can return significant dividends.

Investment in simulation must be conscious of the cost, and also consider the potential benefit. Evaluation of programs to embed a process of continuous improvement and reassessment of needs is also a crucial activity.

Simulation may also help quickly build and refresh core skills making it easier for members to participate in operational delivery. For example, young adults from rural areas who have developed basic skills as junior members of CFA might be able to be retained as volunteers over the summer period, particularly if they are university students with a lengthy vacation period, by quickly refreshing their skills through simulation.

There are many potential ways in which simulation and exercising might contribute to retaining and recruiting younger members. The Jones Inquiry notes that young people often have the IT skills and other technical skills needed in modern incident control centres. Simulation and exercising will help them maintain those skills so they can remain active and available if needed for an incident. They may also have the skills and interest to become active in the development of simulation systems. Skills learned in these roles are also applicable outside CFA making them potentially attractive to younger members.

4.6 Other Issues for Consideration

CFA lacks a consolidated requirements gathering process for simulation. This is a critical component of any future management process. Requirements need to be collected, consolidated, refined and changes need to be managed. Simulation has the complexity that different systems, equipment and facilities will be used for different applications. This makes management of requirements particularly difficult.

One of the strengths of CFA is its membership base and the diversity that represents. Simulation is an approach that fosters innovation and creativity. If these two elements can be combined effectively, the capacity to deliver high quality learning experiences will be significantly enhanced.

5. Conclusion

CFA faces a number of pressures that will shape the way it uses simulation in the future. The role of CFA is changing in accordance with the Victorian approach to emergency services. Partnership with community to build and sustain resilience will become a higher priority. Funding, climate, population distribution, settlement and demographics will all affect the nature of and demand for services. The expectation for flexible and accessible learning opportunities and a professional approach to preparing members for operations will increase.

Simulation will play a crucial role in assisting CFA to respond to these pressures. The establishment of a strategy for the management and support of simulation will set the conditions to achieve success.

6. Next Steps

The next step in this process is to seek feedback on the discussion points in this paper.

This is in the form of a survey available on-line, and in writing (see Appendix A). The aim of this survey is to:

- gather information on how widespread the use of simulation is
- identify problems and shortfalls in the delivery of existing simulation programs
- identify opportunities to improve training, exercising and community resilience programs through the use of simulation, and
- comment on the points in this discussion paper.

Responses to the survey:

- are requested by Monday 12 May 2014
- may be individual or group based.

Stakeholder Survey

This survey is available on line via Survey Monkey. Please see

https://www.surveymonkey.com/s/7PWLP69

However, responses can also be posted to:

Todd Mason
Manager Simulation Strategy
Incident Management Team Training Project
8 Lakeside Drive
Burwood East
VIC 3151

or emailed to t.mason@cfa.vic.gov.au

1. (Optional) Your name, or collective name (eg brigade, group)

2. Your district

3. Your age (optional)

4. Your gender (optional)

5. Your main role(s) at CFA (tick multiple boxes that apply)
   - Volunteer
   - Operational staff member (including Operations Officers and Managers)
   - Non-operational staff member
   - Captain, OIC or Brigade Management Team member
   - Brigade Training Officer
   - Training manager/ instructor/ assessor (staff or volunteer)
   - Brigade Sustainability Initiatives Coordinator
   - Group Officer/ member
   - VFBV District or State Council representative
   - IMT Personnel
   - Other (please specify)

6. If you are happy to be contacted further in relation to this survey please provide your email address or preferred contact details.

7. There should there be opportunities for members to gain experience with hazards other than fire. [Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, Strongly Disagree, Nor sure/ Not applicable]

8. Other than fire, what particular other hazards are the most important to your role?

9. What factors inhibit the conduct of multi-agency training?

10. How would you use simulation to assist your community to build resilience?

11. What tools, aids, technology and support do you need to use simulation for resilience building?

12. How should CFA use simulation to address existing, and future, training gaps?

13. Is it important to have simulation based training delivered locally.
[Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, Strongly Disagree, Nor sure/ Not applicable]

14. There are enough opportunities to practice for my operational role.
    [Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, Strongly Disagree, Nor sure/ Not applicable]

15. How can simulation help prepare you to advance to more senior roles?

16. What could be improved in the way CFA exercises IMTs to be confident in its ability to respond to emergencies?

17. What capabilities would simulation need to be effective in assisting operational decision making?

18. Can you provide an example of how simulation has prepared you for an incident?

19. What opportunities exist to use simulation to enhance existing training?

20. How can CFA use simulation to help new members quickly gain the skills needed to be operationally effective?

21. How can CFA use simulation to help maintain or refresh the skills of members who are only available for limited periods throughout the year?

22. CFA uses existing simulation tools and programs to their full potential?
    [Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, Strongly Disagree, Nor sure/ Not applicable]

23. What guides, tools, aids and procedures should CFA develop to help members use simulation effectively?

24. How can CFA ensure that future investment in simulation programs considers the broadest possible needs?

25. How can simulation facilitators be used most effectively?

26. Simulation facilitators should be coordinated centrally.
    [Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, Strongly Disagree, Nor sure/ Not applicable]

27. There is a need to train more simulation facilitators in my district.
    [Strongly Agree, Somewhat Agree, Neither Agree nor Disagree, Somewhat Disagree, Strongly Disagree, Nor sure/ Not applicable]

28. How should CFA gather examples of existing innovative use of simulation and share them with the membership?

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