Photo courtesy of Bernard Plumpton

PART G – COMMUNITY ALERTS, WARNINGS AND INFORMATION

In this part, the Inquiry reports on the use and efficacy of community alerts, warnings and information. The Inquiry has taken this aspect of its terms of reference to mean these communications specifically connected with the fires, and not community education or information generally. Community resilience and the extent to which education and information are relevant in building this capacity is dealt with in PART I.

Policy and Principles

Community alerts, warnings and information for specific emergencies take place in the context of broader community awareness and understanding of emergencies (in this case, fire risk), how risks should be managed, and the response to a particular threat by emergency services.

The Victoria Bushfire Royal Commission made a number of recommendations on bushfire safety policy and community education and warnings. Recommendation 1 is set out below, but reference should also be made to other related recommendations:

> *[That] The State revise its bushfire safety policy. While adopting the national Prepare. Act. Survive. Framework in Victoria, the policy should do the following:*
>
> - *Enhance the role of warnings – including providing for timely and informative advice about the predicted passage of a bushfire and the actions to be taken by people in areas potentially in its path*
>
> - *Emphasise that all bushfires are different in ways that require an awareness of bushfire conditions, local circumstances and personal capacity*
>
> - *Recognise that the heightened risk on the worst days demands a different response*
>
> - *Retain those elements of the existing bushfire policy that have proved effective*
>
> - *Strengthen the range of options available in the face of bushfire, including community refuges, bushfire shelters and evacuation*

> - *Ensure that local solutions are tailored and known to communities through local bushfire planning*
>
> - *Improve advice on the nature of bushfire and house defendability, taking into account broader landscape risks.[1]*

Consequent to this recommendation, there has been a greater emphasis in Australia on having bushfire safety policies, generally with the ultimate aim of having informed and prepared communities. For example, the current Victorian policy framework has five priority areas:

- awareness and education

- community capacity building

- local community fire planning

- fire danger information and warnings

- bushfire safety options.

A draft Tasmanian Bushfire Safety Policy has been under development for a number of years for the State Fire Commission, with the current draft version dated November 2012. It is not clear to the Inquiry how the policy aligns with the State Fire Protection Plan. This plan was also prepared for the State Fire Commission by Tasmania Fire Service (TFS) and has been endorsed as a State special plan under the Tasmania Emergency Management Plan (TEMP). A 2010 version was lacking in detail on community education and warnings, and the Inquiry was provided with a revised, more detailed version, which was not in place in January 2013, but has since been approved.   While some arrangements are in place for community education and warnings, notwithstanding the delay in developing the policy and plan, it is important to finalise the position on the policy without delay.

The Tasmanian Government's Communications policy is also relevant. It provides that for crisis and emergency management:

> *Agency emergency management protocols must include a communication plan/ protocol that:*
>
> - *Clearly defines the roles and responsibilities of communications and media liaison staff, including using their expertise in preparing messages for staff, other government agencies, the general public and the media*
>
> - *Ensures messages are consistent by coordinating the release of information through all channels, including departmental intranet and internets*
>
> - *Ensures there is a small pool of capable and trained spokespersons available*
>
> - *Meets the requirements of Whole of Government Media Protocols …[2]*

A further appreciation of suitable and practical arrangements is provided in the comprehensive South Australia policy, which is an appendix to the State Emergency Management Plan (SEMP), where core principles of public information and warning are listed:

- public safety is the highest priority

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1 2009 Victoria Bushfires Royal Commission, Government of Victoria, Final Report, Volume ii, Part One, at p. 57.

2 Tasmanian Government Communications Policy, Edition Two, September 2010, at p. 19.

- the primary responsibility for public information lies with the control agency as per the SEMP

- information flow should be provided regularly to keep the public informed and should only be restricted in the interests of safety and/or operational security

- public information and media responses/releases must undergo all necessary clearances by the responsible agency/ies preparing the response/release

- agencies must coordinate messages to ensure consistency of information being provided

- agencies must not make unapproved comment on, or speak on behalf of, another agency's area of responsibility

- all agencies have a responsibility to ensure adequate training and resources to respond to any situation/incident

- the above principles have been adopted from the National Security Public Information Guidelines. While they relate to the release of information on matters relevant to national security, they have equal relevance during an emergency or major incident.

The now-current version of the TEMP provides some indication of principles to apply, though it is very limited:

> The following principles apply to all media arrangements:
>
> a. An informed community is a resilient community, so timely and accurate information being provided to the media is a priority.
>
> b. Commentary is limited to matters related to each agency's own role in response/ community recovery.
>
> c. Comments outside an agency's scope are referred to the response Management Authority in the first instance.'[3]

As noted previously, while there are references to community resilience in these policy comments, it is not intended to deal with that subject in this part.

> *Recommendation 64 – that the State Fire Commission finalise its position on the Tasmania Bushfire Safety Policy without further delay.*

> *Recommendation 65 – that the State Fire Commission structures its Tasmania Bushfire Safety Policy so policy outcomes are identifiable and progress in achieving outcomes can be evaluated.*

Emergency Management Arrangements

Issue 6 of the TEMP was the version of the plan in usage at the time of the January fires and this has very limited content on community warnings and public information.[4]   The new version, issue 7.1, has far more detail, but there is still no comprehensive communications policy and framework as part of the plan. In this case, TFS has relatively comprehensive

3 Tasmanian Emergency Management Plan (TEMP) Issue 7.1 2013, at p. 60.

4 Tasmanian Emergency Management Plan (TEMP) Issue 6 2009, at p. 51.

arrangements for its agency, but there are also complementary support services necessary by other agencies, and the TEMP needs to take an all-hazards approach to this issue. An example from the South Australian State Emergency Management Plan is provided at Appendix G.1

The TFS Community Alert Protocols for a bushfire incident provides a detailed and structured approach to community information and warnings. 'Prepare. Act. Survive.' is the core message to the community and a detailed explanation of the meaning of each of the words is outlined at Appendix G.2 of this report (and appendix 3 of the TFS Community Alert Protocols)[5]. Key elements of the TFS approach to community messages are:

- the community should not rely solely on receiving an official message

- as much information as possible should be provided through a wide range of mechanisms, so people can make safe choices

- the information will take into account the features of the fire

- structured arrangements within TFS are necessary to prepare the information

- the use of information should predict fire travel and identify potential areas of impact. [6]

Three levels of messaging are used (with 3 being the highest level):

1. 'Bushfire Advice' message: A fire has started or is being scaled down – there is no immediate danger; general information to keep up to date with developments

2. 'Bushfire Watch and Act' message: Conditions are changing; you need to start taking action now to protect you and your family.

3. 'Bushfire Emergency Warning': You are in danger and need to take action immediately. You will be impacted by fire. This message may be preceded by an emergency warning signal (a siren sound).[7]

Arrangements are established within TFS to set up an Information Unit at regional or state level, and as part of an Incident Management Team (IMT) when an IMT is on standby or is operational.

A fire Incident Controller is responsible for deciding to publish an alert, and is expected to follow the TFS Six Operational Priorities (covered in PART E) when bushfires burn out of control. The first of these priorities is to issue warnings.[8]

It is acknowledged that there is a need to provide information which can be used by people with different information needs. A Bushfire Warning and Messages Matrix can be used to identify trigger points for pre-arranged messages. This Matrix has been developed using the Fire Danger Rating Scale with the time before a fire impacts communities as the trigger point for the different messages.[9] Its templates are only a guide and can be modified as required. The Matrix is shown at Figure G.1.

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5 Tasmania Fire Service, Community Alert Protocols, Bushfire Incident, at pp. 3 and 32.

6 TFS, Community Alert Protocols, at p. 3.

7 TFS, Community Alert Protocols, at p. 3.

8 Submission No. 60, at para. 4.7.

9 Submission No. 60, at para. 4.8.

Figure G.1

Category	Fire Danger Index	<2 hrs	2-6 hrs	6-24 hrs	24 plus hrs
Catastrophic Uncontrollable and unpredictable	100+	10	10	8	Message as per Incident Controllers Instructions
Extreme uncontrolable / uncontrollable and unpredictable	75-99	10	9	6	
Severe difficult to control / uncontrollable	50-74	4	7	5	
Very High Controlled/difficult to control	25-49	4	3	2	
High Controlled/difficult to control	12-24	3	2	1	
Low – Moderate Easily controlled/ controlled	0-11	1	1	1	
Fire Danger Rating		Time to Impact			

TFS has recognised that warnings for large fire events need to be contextualised, as the same message will not necessarily be relevant to every person or community potentially affected by the fire. Multiple warnings levels may be required for the same fire. A project has been established to provide a solution to this issue. Comments made in the section on Community Responses to Alerts, Warnings and Information should be taken into account in this project.

These emergency warnings can be preceded by an alert sound which is known as a Standard Emergency Warning Signal. This warning sound is available for all forms of emergency and is generally confined to significant emergencies where an urgent safety message is required.[10]

Warnings in the form of an Emergency Alert can also be used. This is relatively recent innovation takes the form of telephone voice and SMS-based warnings and is an Australia-wide initiative. The first phase of this system sends automated messages to fixed phone lines and to mobile phones that have a billing address in an area which can be specified for the purpose of the message.[11] In November 2012, a location-based system was included to capture visitors to a specified area with a mobile phone. This latter initiative is dependent on the location and continued operation of telecommunications towers. Initially this new initiative was just for Telstra customers and an extension to Vodafone and Optus customers is expected by the end of 2013.

Arrangements for Standard Emergency Warning Signals and Emergency Alerts are only provided for in the new issue of the TEMP, but the Inquiry is satisfied that they were in place before the January fires.

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10 TEMP, Issue 7.1 at p. 59.

11 TEMP, Issue 7.1 at p. 59.

Messages can be sent to most media outlets in the state, automatically posted on the TFS website, and sent to the social media outlets Twitter and Facebook. Memoranda of Understanding were in place with the news media and mutual responsibilities are set out in a non-legally binding way.[12] The Australian Broadcasting Commission (ABC) in particular had become an accepted source of emergency information.

In addition to the news media, there were a number of public information services available:

- TFS had an 1800 fire information line as well as its website

- Tasmania Police (TASPOL) had a website for public information, and had been using Twitter before the fires, but was developing its Facebook capability

- the Department of Premier and Cabinet (DPAC) had some established arrangements. It manages the Tasmanian Emergency Information Service, which is a virtual call centre, using selected call centre services across Government. This centre can be linked into a National Emergency Call Centre operated for the Australian Government. A Public Information Unit and a website were also available.[13]

The use of social media will be commented on in a separate section.

> *Recommendation 66 – that the Tasmanian Emergency Management Plan includes a comprehensive all-hazards communications policy and plan.*

Community Alerts and Warnings

On 2 January, TFS began warning the community through the media and its website about the high fire risk expected over the following days. Total Fire Bans were declared for the Southern Region on 3 January and for the State on 4 January. Access to the media on 3 January, unfortunately, was not as forthcoming as it could have been.

Community messaging began soon after the fires started and detailed timelines for the messaging is provided at Appendix G.3. The approach to messaging was comprehensive and references will only be made in this Report to specific messages where they are relevant. Each message was derived from a template form and modified with the inclusion of information as required. An example message is at Appendix G.4.

On 3 January, Bushfire Watch and Act messages were sent out for the Forcett fire; the final one was sent at 11.05pm. On 4 January, Bushfire Watch and Act messages began at 2.34am and continued through the morning. The first message to become more specific for Dunalley was at 12.25pm, when it stated:

> *This fire is affecting the communities of Inala Road, Gangells Road and White Hills Road, Kellevie Road NOW and has potential to impact Copping, Boomer Bay, Dunalley, Connellys Marsh, Primrose Sands and Carlton River within the next 3 hours.[14]*

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12 Community Emergency Information Arrangement, WIN Television – Tasmania and Tasmania Fire Service 2010, and Memorandum of Understanding, Emergency Broadcasting, Tasmania Fire Service and Australian Broadcasting Corporation (Tasmania).

13 Submission No. 84, at p. 11.

14 Bushfire Watch and Act Message, Inala Road, FORCETT, 201651.

There is other information in the message about falling embers, smoke and ash; and advice on the stay or leave policy. At 2.25pm, the next message is sent out and the relevant area provided:

> *The fire is now putting the area of Copping, Dunalley, Inala Road, Gangells Road and White Hills Road, Kellevie Road NOW and has the potential to impact Boomer Bay, Connellys Marsh, Primrose Sands and Carlton River direct severe risk from the fire front within 2-4 hours.[15]*

However, the message for the areas which could be affected by the fire is somewhat confusing. Possibly this is as the result of a quick modification of the previous message.

An Emergency Alert message was sent out, starting at 2.25pm and ending at 3.25pm, for a designated area, not including Dunalley. The message is different for voice than SMS, due to the limitation on the number of characters that can be used for SMS:

> *This is an emergency warning from the Tasmania Fire Service for copping, Carlton River, boomer bay and sugar loaf Rd area. Your home will be impacted by the fire in your area. Use your home for shelter or go to a safer place now if the path is clear then Listen to A B C local radio for more information or the Tasmania fire service website. (voice)[16]*

> *Emergency Fire warning for greater Copping and Sugar loaf Rd area. Homes will be impacted. Seek a safe place. Info @ local radio and www.fire.tas.gov.au (SMS)[17]*

Another Emergency Alert message was sent out, starting at 3.08pm and ending at 4.08pm, including Dunalley:

> *This is an emergency warning from the Tasmania Fire Service for Dunalley. Your home will be impacted by the fire in your area. Use your home for shelter or go to the safer place now if the path is clear then Listen to A B C local radio for more information or the Tasmania fire service website. (voice)[18]*

> *Emergency Fire warning for Dunalley. Homes will be impacted. Seek shelter in a safe place. Info @ local radio and www.fire.tas.gov.au (SMS)[19]*

The predictive modelling does not appear to have influenced the timing of messages or their content, on either 3 or 4 January for further south than Copping on the Arthur Highway. Nor does it appear to have led to the development of a strategy to warn Dunalley or any other community potentially affected in that area. Comment has been made in PART D on concerns about the reliability of the modelling. The point was previously made that the consequences of the fire reaching Dunalley ought to have outweighed doubt on the probability of it occurring. The TFS Community Alert Protocol acknowledges that minimising the impact of fire on communities is dependent on, among other things, using predictive information.

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15 Bushfire Emergency Warning Message, Inala Road, FORCETT, 201651.

16 Campaign Summary Report, message id. 13001130.

17 Campaign Summary Report, message id. 13001130.

18 Campaign Summary Report, message id. 13001190

19 Campaign Summary Report, message id. 13001190

Recommendation 1 of the Victorian Bushfire Royal Commission also recommended that warnings include the predicted passage of a fire.

There were apparently discussions by senior fire officers during the evening of 3 January as to whether the simulation should be used to warn communities. However, warnings were limited to areas near the fire: the Copping area, including Kellevie, Marion Bay and Bream Creek Roads and the Arthur Highway. These warnings were reinforced on ABC radio early on 4 January.

This limited use of the simulation — if it was used at all for these warnings — effectively means that it wasn't used, as most of the impact on communities was further south of the areas referred to in the previous paragraph, as indicated in the simulation.

The TFS Chief Officer informed the Inquiry that the Forcett fire was the first time predictive mapping was used operationally. He explained that there was little forward deployment of resources due to the fires that were burning and the uncertainty of where they would go and what resources would be required at each incident.

In the morning of 4 January, without intervention at a senior level, it was highly unlikely that the predictive modelling would have been used operationally. The Fire Commander and fire crews at the Forcett fire were concentrating on suppression operations and the TFS Six Operational Priorities are for use when a fire is out of control. In this context, the Fire Commander may not have considered the need for a proactive approach to community messaging. The IMT had only started planning for the Forcett fire on the morning of 4 January and did not have an Incident Action Plan finalised until it became very active after midday. In any case the Inquiry has been advised that the IMT is meant to be forward looking and would not have been considering acting in the immediate operations.

The Inquiry is satisfied that there was a strong case for the use of the predictive modelling simulating the Forcett fire on 4 January. Further comment will be made later on how people respond to emergency messaging, but there should have been greater urgency and more proactive creativity in the process of delivering warnings to potentially affected areas, such as Dunalley. The police approach at the Lake Repulse fire, although not without its difficulties, indicates what action could have been taken, though the Inquiry should not be interpreted as simply saying that this is what should have been done.

Warning communities and people generally should not only be a priority when fires are burning out of control. There is a risk in the TFS Six Operational Priorities that it might be seen that way, as the priorities are intended to operate when fires are burning out of control. In PART E, the priorities are discussed and it is recommended that they are reviewed. The discussion in this part should be included in that review.

Aside from the predictive modelling issue, the timing and content of the messages could have been improved. There was an opportunity to move from the Bushfire Watch and Act message, at least between 12.25 and 2.25pm on 4 January, with more warnings being issued; and more specific meaningful content could have been used to prompt people to act. The use of words like 'potential' and 'impact' should be examined. The latter word in particular is part of emergency services jargon.

Image courtesy of Bernard Plumpton

Coincident with these messages being sent, especially as the fire came closer to Dunalley, police and fire officers on the ground had changed to an immediate evacuation approach and verbal warnings were being given to the community. This approach was in line with the TFS Six Operational Priorities, where warning the community becomes the highest priority when fires are out of control, and it appeared to be very effective as a last resort in the circumstances. Comment has been made on evacuations in PART E.

Warning and Emergency Alert messages continued to be sent out as the fires moved further south from Dunalley. Up until midnight of 4 January, more warning messages were sent to the various areas down through the Tasman Peninsula.

Some submissions to the Inquiry indicated the warnings and alerts worked well, and others complained they either did not receive a message or received it too late to be of value. For example, messages were received by people after they evacuated to the Dunalley hotel.

Much of the above discussion has focussed on Dunalley. This is not to suggest that emergency warnings were not relevant or issued in other areas; rather, the approach in Dunalley illustrates how community warnings were used for that fire and some of the difficulties with these messages.

Care does need to be taken with the wording of messages and the geographic area they are applied to. A universal message can have negative consequences for some people in a given

geographic area. This was brought to notice in the Bicheno fire, where an Emergency Alert message was issued at 2.40pm on 5 January for the Llandaff area, with the SMS message:

Emergency Warning from Tasmania Fire Service. South Bicheno. Relocate south away from the fire now. Fire will impact in 30 min.[20]

For South Bicheno, this message was too broad and some people from this area drove south along the Tasman Highway towards the fire. When this was realised, another message was issued with the revision:

Residents south of Apsley River need to move south now away from the fire.[21]

Similarly, one submission drew attention to a message in the Forcett fire, where it was argued that Kellevie residents were urged to leave their homes and proceed along a road which was inappropriate and potentially dangerous.[22]

Limitations in the technology may have partly caused the misinformation in these cases. The location-based solution will send messages to mobile phones outside the nominated area if they have been last used within that area. It is also not generally possible at present to limit the message to mobile phones in the defined area. Consequently, a mobile phone user outside the area may receive a message and move towards a dangerous area as the result of it.[23] A number of observations were made in the Australian Fire and Emergency Service Authorities Council Audit Review (AFAC Audit) on this subject, and the following recommendation was made:

TFS should take steps to obtain cell transmission coverage maps for [location-based solution]-based [Emergency Alert] messages and take note of the need for training of staff to ensure that messages are drafted carefully and appropriately so as to take cell transmission coverage into account.'[24]

Many people relied on ABC local radio for their emergency information, and there were submissions supporting the use of this medium. The messaging from TFS prompted people to turn to the ABC for more information. A variety of comments were made on the value of ABC bulletins to individuals, some suggesting that it was too broad for their specific circumstances, or the cricket should or should not have been on at the same time, or that comment should have been made at the outset of a bulletin to indicate what areas had changed, so that people did not have to listen to a long bulletin to find that no change had occurred for their situation. Another suggestion was that the ABC could inform people where and when they could obtain more detailed up-to-date information.

The AFAC Audit noted that during the major operational response, TFS issued over 200 community warnings and conducted more than 100 ABC radio interviews and 50 television interviews throughout the State. An observation was made that interviews were clear and

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20 Campaign Summary Report, message id. 13001770.

21 Campaign Summary Report, message id. 13001790.

22 Submission No. 54.

23 AFAC Audit-Review, The Tasmanian Fires of January 2013, May 2013, at p. 32.

24 AFAC Audit, at p. 32.

concise on information and warnings to communities that were under threat on 4 January.[25] The AFAC Audit also commented on a report from an ABC Radio manager that 'TFS provided a high level of clarity in [its] information and messages and therefore ABC Local Radio was able to provide a high level of clarity to our listeners.'[26]

More detailed data on its messaging is provided in the TFS submission to the Inquiry, some of which relates to a longer period. For the three fires being examined by the Inquiry, the following data over the period 2 to 5 January is relevant:

- Forcett Fire: 38 Bushfire Emergency Warnings and 34 Bushfire Watch and Act messages.

- Bicheno Fire: 15 Bushfire Emergency Warnings, 6 Bushfire Advice messages, and 5 Bushfire Watch and Act messages.

- Lake Repulse Fire: 18 Bushfire Emergency Warnings, 1 Bushfire Advice message, and 62 Bushfire Watch and Act messages.[27]

Media outlets had difficulty with the volume of messaging to so many communities, and the ABC adopted a priority approach to relaying messaging.

Another matter to be aware of when TFS and other emergency services are considering the use of electronic forms of alerts and warnings is the possibility of power and telecommunications failures and limited mobile phone coverage, and how that may affect people's ability to receive these alerts and warnings.

The importance of mobile phones for community alerts and messaging is recognised nationally and is on the agenda of the Standing Council of Police and Emergency Management. It was also raised at the Council of Australian Governments Meeting in April 2013.

A final comment on the use of Standard Emergency Warning Signals. It was not considered necessary to use it during media messages and the AFAC Audit did not comment on this approach.

> *Recommendation 67 – that Tasmania Fire Service actively uses predictive modelling to design emergency communications for communities threatened by bushfire, unless there is a compelling reason for not doing so.*

> *Recommendation 68 – that Tasmania Fire Service ensures that the priority on warning communities at risk of active bushfires is not confined to when bushfires are burning out of control.*

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25 AFAC Audit, at p. 30.

26 AFAC Audit, at p. 31.

27 Submission No. 60, at para. 6.1.

Public Information

Public information is provided through and derived from a variety of sources. For emergency management, public information is critically important for a number of reasons:

- it provides context for alerts and warnings that are issued, options available and action that could or should be taken

- it facilitates the recovery process by providing reassurance or necessary or useful information

- it helps determine and understand risk and how risks might be prevented or mitigated

- an informed community is a pre-condition to building community resilience.

Considering the multiplicity of uses for public information in emergency management, there are comments on this subject in a number of parts to this Report, and it is not useful to attempt to confine comments to the one area. Consequently, other relevant parts of this Report should be considered in conjunction with the discussion here. An attempt will be made in this part to avoid repetition.

Moreover, in considering this section, it should be kept in mind that in the early stages of a major emergency, as has been referred to previously, information is often either not available

Image courtesy of Mark Heather

or is confused. Also, the needs of people and how they interpret and understand information varies significantly. It is rarely possible to have everyone fully informed all the time. Social media will be dealt with in the next section.

Radio and television are an important source of public information, and have been referred to in the discussion above on alert and warning messages. Many media releases and interviews were conducted to alert and warn the community, and provide response and recovery information. While there is no suggestion to the contrary, it is important that TFS and TASPOL in particular maintain well-resourced and professional media capabilities. Some indication of the public information issues can be obtained from comments in submissions, which included:

- briefings by police at evacuation and refuge centres were highly valued and should be included in future planning. Scheduled briefings should be adhered to and publicised, and provided by well-briefed communicators[28]

- community briefings were highly valued and an early system for them should be established. Consistent advice should be provided[29]

- people who remained in the fire affected area felt the generic ABC radio information was not sufficiently specific[30]

- there is a need for frequent and comprehensive updates on road closures and other events[31]

- frequent use was made of the TFS and TASPOL websites[32]

- in the majority of the Ellendale area, there was no communication by the normal source of ABC radio updates, no mobile phone or internet coverage, and people relied on the police physically door-knocking the area[33]

- there were no formal arrangements for translation and interpretation services.[34]

TFS has a public website which can also be accessed from mobile phones. Initially it was a copy of the Victorian Country Fire Service website, but it has been substantially changed and modified.   Part of the change has been to upgrade the resilience of the system following a failure in 2010 when it was overloaded. The performance target for this aspect of the website is to enable every person in Tasmania to request a page every 15 minutes, or two million page views per hour. TFS reports that during the 2012–13 fire season, the maximum page views reached 1.6 million in a 24 hour period.[35] There were some issues with consistency and coordination of messages with police, particularly on road closures, and this was overcome with a hyperlink between the two agencies' websites.

TFS also maintains a 24-hour telephone Fire Information Line. During business hours, the line terminates at the relevant Regional Fire Operations Centre; after hours, it is transferred to the

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28 Submission No. 82a.

29 Submission No. 43.

30 Submission No. 43.

31 Submission No. 43.

32 Submission No. 24

33 Submission No. 27.

34 Submission No. 84.

35 Submission No. 60, at para. 6.7.

FireComm call taking and dispatch centre. During the January fires, the Fire Information Line could not handle the volume of calls being received; people resorted to (inappropriately) using the 000 line for information, and calls were transferred to the Government call centre, which will be discussed below.[36]

TASPOL used its website extensively to provide information to the community on the fires, and the early discrepancies with the TFS website, as indicated above, were rectified.[37]

Considering the scale and complexity of this fire emergency, a whole-of-government approach to public information was necessary, and there were a number of facilities available for this purpose.

The Tasmanian Emergency Information Service was placed on standby early in the afternoon on 4 January and became operational at 8.00pm that night, receiving calls on a Bushfire Hotline number. It operated continuously for the next 26 hours and then entered into an arrangement with the National Emergency Call Centre for that centre to handle overnight calls. Operators had access to the TFS and TASPOL websites and were provided information in 'frequently asked question' form. Over 4000 calls were received during the first day of Tasmanian Emergency Information Service operations; up until 14 January, it had received 8 000 calls.

The limited knowledge and access to information that operators had restricted the information that could be provided. TFS sought to overcome this problem by deploying a TFS member to the Tasmanian Emergency Information Service.[38] Staffing with a sufficient number of trained operators was an issue for extended operations. An alternative arrangement of the use of the Centrelink call centres was suggested in the AFAC Audit report.

A Public Information Unit can also be established within the DPAC. This unit is principally designed to support the State Crisis Centre, but was used more broadly for this emergency. Essentially, the Public Information Unit is responsible for developing a whole-of-government media and public information strategy. It began operations on 5 January.

Return Home information packs were developed by the Public Information Unit. TASPOL began distributing these at community meetings from 8 January and later, at police traffic management points on the Arthur Highway. They were also distributed at information sessions and through Information and Service Hubs.[39]

Comments in PART F on the transition to recovery indicate that the approach to public information immediately following the fires on 4 January could have been improved, and a recommendation is made that there be a public information strategy developed as part of the recovery plan.

The State Emergency Management Committee has commissioned a number of projects following the fires. One of these relates to establishing a State Emergency Public Information Management Strategy. In its submission to the Inquiry, DPAC indicates it will 'identify the

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36 AFAC Audit, at p. 31.

37 Submission No. 78, at p. 24.

38 AFAC Audit, at p. 31.

39 Submission No. 84, at p. 35.

communication tools and channels available and provide guidance to agencies regarding their use in emergencies'. [40]

It is hoped that a different approach is taken to the content of this strategy than has been the case with many other aspects of emergency management, so that a strategy will be ready to use if needed, by providing sufficient guidance on how a public information program should be implemented immediately a major emergency occurs. Hence, the recommendation made in PART F.

Another project will complement this initiative by clarifying the criteria for activating whole-of-government public information support arrangements in an emergency, especially when the State Crisis Centre is not activated.[41]

There are two other projects underway relating to the use of social media, and they will be referred to in the next section.

The Use of Social Media

The terms of reference specifically require the Inquiry to examine the use and efficacy of the various forms of social media by '(a) authorities responding to bushfires, and (b) private citizens during the fires, and the adequacy of existing arrangements for dealing with that use in a constructive and safe manner.'[42] Though the terms of reference only identify authorities 'responding' to the fires, the Inquiry has taken this reference to include both response and recovery operations.[43]

It is likely this term of reference is, at least partly, due to the 'Tassie Fires – We can help' Facebook page, set up during the fires by Mel Irons. This page is discussed below.

In an emergency, to satisfy broader community information needs for response and recovery purposes, the government sector should be the primary source of reliable and authoritative information. Today, many people (especially younger people) use social media as a source of information and a form of communication; and its use is increasing. People will seek to fill any shortcomings in public information by accessing alternative sources such as social media. Considering current communications practices in the community, it can be expected that social media will be used during emergencies.

Use of social media by agencies with an immediate role in emergency management operations across government varies, and there is potential for much greater use of this medium. Websites are in common use among government agencies and can be improved, as has been discussed in part in previous sections. The Inquiry has not sought to analyse the content of these websites to determine whether any of them can individually be improved. Best practice standards suggest agencies maximise the potential of these sites by ensuring they fully use contemporary technological capabilities. This approach should be a starting point in establishing a readily available information base for the community.

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40 Submission No. 84, at p. 19.

41 Submission No. 84, at p. 19.

42 Refer to the appendix for a full copy of the Inquiry Terms of Reference

43 In any case, part 7 of the terms of reference enable the Inquiry to examine any other relevant matters.

Tasmania Fire Service

TFS has a Facebook page. Information provided includes direct input from the TFS call taking and dispatch system and alerts; general information was also posted during the fires. All TFS messaging to social media is designed to redirect people to its website or ABC local radio for further information. At the time of its submission to the Inquiry, TFS advised it did not respond to posts on its Facebook page or engage with social media users directly. When an Incident Management Team is established, public information officers will attempt to monitor Twitter and Facebook, to identify information which may be of operational value and to ensure public conversations are consistent with the alerts TFS has provided. There was very limited use during the fires by individual officers of their personal Facebook pages to respond to posts from people wanting further information.[44]

Further, in its submission, TFS indicated it was not in a position to monitor the use of social media in a formal way or to engage with users on a one-on-one basis, and it was noticed some parts of its website were 'cut and pasted' by some people into their own Facebook page.[45]

Tasmania Police

Before the fires, TASPOL was using Twitter but still developing its Facebook capability.[46]

The Public Information Unit

This Unit began using social media during the fires. A Twitter account was established and DPAC advised the Inquiry that it quickly developed a following. As new information or facts came in, they could be quickly sent out on Twitter. However, rather than create a new Facebook page specifically for the emergency, the Unit developed a relationship directly with their existing Facebook users.[47]

In contrast to the relatively limited use of social media by agencies and organisations managing the emergency, some sections of the community made extensive use of this form of communication, as is illustrated below.

Case Study: Mel Irons and the 'Tassie Fires – We can help' Facebook page

Mel Irons is a PhD Candidate at the School of Psychology at the University of Tasmania and also runs her own personal training/coaching business.

On 4 January she was listening to the ABC and watching the TFS website, keeping an eye on reports of the fires.

Mel saw there was extensive activity on Facebook about the fires; in particular, she noticed many offers for help being posted and, to a lesser extent, requests for help. She also noticed a 'huge amount of chaos' and confusion, and recognised there was an urgent need for a central hub of information. She could see great potential to help the areas affected by fire through engaging the community.

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44 Submission No. 60, at para. 6.4.

45 Submission No. 60, at para. 6.4.

46 Submission No. 78, at p. 24.

47 Submission No. 84, at p. 35.

So Mel created the Facebook page 'Tassie Fires – We Can Help' and rang ABC radio around 9.45am on 4 January to tell it about the page. Activity on the page soared very quickly; within 24 hours, it had amassed 17 000 likes. People heard about the page from the radio, but most people actually saw it on Facebook first.

Mel spent the first 48 hours making key contacts, working out what to do, and waiting for information to come to her so she could do something about it; even if it was just to pass information on. In the first hour, there were posts with offers of help from a number of animal hospitals, Bonorong Wildlife Park, baby sitters and child carers, a reptile handler, and information about donations to St Vincent de Paul. During the first night, there were offers of basics such as food, water and accommodation, requests about missing relatives, Telstra making pay phones free, and assistance with medications.

Engagement with the page continued to soar and Mel was heard on radio, seen in the newspapers and acknowledged by high profile people such as the Tasmanian Premier. This generated even greater awareness about the page and what Mel was trying to do.

From the very beginning, Mel placed her personal contact information on the page, which she believes gave the site credibility. People emailed or called her if there were any issues needing to be followed up.

As the page became more and more popular, Mel realised she needed somewhere to place key information (such as details for key contacts or important organisations) so people didn't have to trawl through thousands of posts to find the information they needed. She created a temporary website (www.tassiefireswecanhelp.org) and then a permanent website (www.tassiefireswecanhelp.com).

What did 'Tassie Fires – We Can Help' do? First and foremost, it used a form of technology that was already popular and regularly used in the general population. It provided access to help and information even when roads were blocked and there was no power. That access allowed people to connect and communicate in previously unknown levels regardless of those restrictions. It provided a channel for people wanting to help to be connected to those needing their help. It provided a forum for people to tell their story, share their experiences and receive support. It also provided a focus for fundraising.

In this example, social media was used to mobilise the community to volunteer help and provide donated goods. However, there are risks associated with encouraging support from the community in an uncontrolled way during the highly emotional circumstances of a major emergency. Issues raised with the Inquiry include:

- substantial quantities of donated goods arrived at locations, such as the centres at Sorell and Nubeena, which were not required or exceeded the need. These goods had to be managed and this distracted people from other responsibilities and became another problem to be dealt with

- people with boats were encouraged to assist with evacuations without checking on the competency of boat operators or the suitability of boats

- volunteers were encouraged without an assessment of their capabilities or the protection of insurance

- it was suggested that volunteer gun owners be allowed to go into affected areas to help with putting down badly affected animals (the Department of Primary Industries, Parks, Water and Environment intervened on this posting).[48]

Social media also enabled people to access information more quickly, to share information with others, and to make direct contact with agencies. In some cases, people could share information real-time as events were happening around them in the fires.

Risks can be summarised as:

- posting or tweeting unreliable information
- disaffected, disgruntled and anti-social people (including 'trolls') posting or tweeting inappropriate information or comments
- perpetuating rumours
- encouraging people to take inappropriate risks
- not matching skills to tasks
- creating unrealistic expectations
- lack of insurance protection
- lack of support for volunteers.

Social media is a reality. Mel Irons argued that there are risks in not using it for emergency management purposes, including:

- information will be in the social media environment and it is better to 'control' it appropriately
- donations and volunteers can be directed
- social media information will reduce calls to the emergency services
- traditional news media may not reach people who use social media as their only source of information
- social media brings the emergency closer to people who want to help.
- social media has the potential to contribute to developing community resilience.

There were other instances where the use of social media supported community self-help, such as the fodder program discussed in PART F. Consequently, use of social media should be recognised and a position on its use by the government sector and in emergencies should be established.

A key policy decision would be where the government sector and agencies want to position themselves in the information environment. The likely answer is that they would want to be seen as the reliable or authoritative source of information during an emergency. This

48 Submission No. 69.

positioning is consistent with people's expectations, revealed in research conducted into the use of social media in emergencies.[49] This research argues that:

Two aspects of social media of particular relevance to their use in the context of natural disasters are their ability to provide access to timely public safety-related information from official and informal sources and their ability to enable connectedness; both to loved ones and to the broader community, providing reassurance, support and routes for assistance.[50]

The people surveyed in this research had set up and managed community Facebook sites for a recent flooding event in Queensland; or were active in posting to such sites. When asked how much they would rely on social media or official sources of information, 56% said they would rely equally on both, 38% said they would rely more on official sources, and only 6% would rely more on Facebook information.[51]

It is also likely that the government sector and agencies would not want to be directly involved in all activities on social media during an emergency (for example, calling for donated goods) for reasons of accountability and as part of building community resilience. A better position would be to influence the manner in which certain activities are managed; for example, dispelling rumours and directing volunteers to established processes.

An example of the extensive use of social media is provided by the police media team in the Queensland Police Service (QPS). Details can be found in its case study on its use during a cyclone emergency.   Facebook, Twitter and YouTube were used to provide disaster-related information as soon as it became available, live video streams, summaries of media conferences, and 'myth busting' of misinformation. Media conferences included Auslan sign language interpreters, and conference summaries were translated into different languages. The Facebook page was moderated 24 hours a day.

The QPS media site became the authoritative site across government and in the community. Its success was attributed to:

- the site's ability to put out a large amount of information to the community quickly, ensuring there was no vacuum of official information
- its information could go directly to the community without having to rely on the media
- it dealt with rumours quickly
- it allowed immediate feedback to be received from the community
- it was supported by the media.

Significant resource commitments would be necessary to establish arrangements on the scale of the QPS model, and such a commitment may not be possible for all jurisdictions in Australia. Nonetheless it provides a model for consideration.

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49 The role of social media as psychological first aid as a support to community resilience building. A Facebook study from 'Cyclone Yasi Update', by Mel Taylor, Garrett Wells, Gwyneth Howell, and Beverley Raphael, in The Australian Journal of Emergency Management, Volume 27, No. 1 February 2012, at p. 20.

50 The role of social media as psychological first aid, at p. 20.

51 The role of social media as psychological first aid, at p. 23.

A project has been established by the Security and Emergency Management Advisory Group (SEMAG) to develop a Tasmanian Government Emergency Management Website. This concept was first considered by the State Emergency Management Committee in 2008, to deal with the issue of the community having to access multiple websites to obtain information and advice on emergency-related topics. The Project Business Plan was approved by the SEMAG in July 2013; the project has had a long gestation period.

A consultant advised that most existing Government infrastructure was not adequate to cope with the high-traffic scenario expected in an emergency. The agreed option was to establish an aggregation website to provide a whole-of-government approach, but which did not replace existing emergency service websites. The January fires have provided an insight into the use of social media in this website.

The website is intended to have two main uses:

- to provide information on emergencies
- to help the community be prepared for each type of emergency likely to be experienced in Tasmania (in support of the National Strategy for Disaster Resilience).

A social media aggregation will be provided using social media posts from government agencies. The first phase will not be open to community social media interaction. An option of using Facebook to send messages out to targeted groups is being examined. The Inquiry was informed that the website is primarily intended to be a one-stop-shop location for the community to access information in an emergency, and this will be kept 'as light as possible' to push people out to other websites.

It seems from this description that social media will be used sparingly at this stage. However, the Inquiry is aware that another project is examining the use of social media in emergencies, as referred to above in this part, and it is to be hoped that the two projects will inform each other in this respect.

A related subject is the extent to which government agencies use social media for their normal operations and services and its availability at times of emergency. The Inquiry cannot examine this matter across the public sector, but has examined the use of social media by TFS and TASPOL to some degree. Both these agencies should be considering how they can fully use modern forms of communication to improve their services, especially TASPOL. This would have the benefit of improving their present services and have a well-developed capability that can be used immediately in emergency situations.

Recommendation 69 – that the State Emergency Management Committee makes timely decisions and resource commitments on the appropriate use of social media in emergency management.

Recommendation 70 - that the State Emergency Management Committee makes arrangements to actively manage the use of social media in the community during an emergency, to avoid negative consequences for emergency operations.

> *Recommendation 71 - that Tasmania Fire Service and Tasmania Police reviews their use of modern forms of communication with the community, including social media, and commit resources to fully use this capability where appropriate.*

Community Responses to Alerts, Warnings and Information

To understand the effectiveness of bushfire alerts, warnings and public information, research has been conducted by the then Bushfire Cooperative Research Centre[52] to evaluate how people respond to these forms of communication and the threat of bushfire. The Centre provided a preliminary report to the Inquiry. This report includes an evaluation of the preparations people made for bushfire but, as the Inquiry is examining communications in the immediate context of the fires, no comment will be made on the longer-term preparations in this part.

Following the Forcett fire, the Centre conducted 160 interviews in January of residents of the affected areas; people visiting or travelling through the area during the fire were not included.

Key relevant findings in the research were:

- those who prepared for the fires, whether they were long-term or short-term preparations, mainly reported they initiated this action because of common sense (more than 45%) and experience from living in a rural area (40%). The least reported resources for this purpose were community meetings (less than 5%), an official website (less than 5%) and official documents (10%)

- for those who prepared on the day of the fire, they were influenced by TFS (28%), the media (23%) or the experience of a past fire (28%). The most reported reason was listed as 'other' (nearly 50%) and this included a variety of influences, such as family and friends and a desire to protect their home

Image courtesy of Mark Heather

52 Preliminary Report on the January 2013 Fires in the South-Eastern Tasmania Research Project, Jessica Boylan, Colleen Cheek and Timothy Skinner, University of Tasmania, Bushfire Cooperative Research Centre, February 1, 2013.

- the most frequently reported action taken on the day of the fire was 'left just in time' (23%), 'left well before the fire' (18%), and 'successfully defended the home' (22%). The least reported action was those who were not at home deliberately because of the fire danger (1%). Males most frequently reported successfully defending the home and females reported most frequently leaving before the fire

- those with responsibility for dependents and pets (36%) were mainly influenced by these responsibilities in their decision making (69%) or had made plans for them (79%)

- the most common ways of becoming aware of the fires was through seeing or smelling smoke (29%) or by being contacted by friends/neighbours/family (22%) or by receiving a warning via the radio (13%)

- the preferred method of receiving an emergency warning was mobile phone (36%), radio (28%) or face-to-face communication (16%). Many residents didn't report using the TFS website because power was cut off

- the most frequent intention was to leave when the threat became apparent (28%) or stay and defend the property (22%). Other significant intentions were to wait and see and then decide (16%) or to leave early (15%)

- after learning a fire was in the area, the most frequent actions taken were to turn on the radio for information (61%), collect valuables (54%) and to telephone friends/neighbours/family (41%). The least reported actions were to email friends, log on to Facebook or Twitter, or look at a website other than the TFS website.

- 33% took decisive action more than two hours before the fire arrived, but 22% did not act until immediately before the fire arrived

- the trigger for people to leave their home were varied: they could see or smell smoke (38%), received official warnings (37%), could see flames in the distance (32%), could see flames close by (24%) and had completed defensive action (21%). Other reasons amounted to almost 20%

- most frequently, they went to a nearby safer place other than one in their plan or identified by TFS (32%). 27% and 26% went to a place identified in their plan or by TFS respectively. 32% sheltered in a building, 32% sheltered in a car, 26% sheltered in the open and 9% sheltered in the sea

- 46% reported using a fire refuge or an evacuation or recovery centre

- the three most often reported reasons for survival were leaving early, planning and preparing, and emergency warnings.

The Centre's report also commented on a number of communication issues. It should be noted that this preliminary report notes that more substantive themes will be provided in the final report. Observations include:

- emergency information on the day was often too general, across Emergency Alerts, the TFS website and radio broadcasts

- up-to-date information about the current location of the fire and the prevailing weather would have given them a better understanding

- it was misleading to call it the Forcett fire and this affected the immediate response of some because they did not associate the fire with their area

- Emergency Alert messages on landlines was useful if received in time
- Emergency Alert messages were useful if received before the fire arrived – there was a common issue with the timeliness of these messages. In part this may have been due to the poor mobile reception in the area and damage to power infrastructure
- the TFS website lacked detail and did not have up-to-date information
- a graphic of the real-time location on the TFS website was needed
- Bushfire Watch and Act messages sometimes confused and stressed residents about what to do next
- battery-operated radios were the most common source of information
- ABC radio was useful and effective, mispronunciations caused some confusion
- a mixed message approach to warning people is important
- door knocking was an effective form of warning and people were very positive about police and fire actions in this regard
- residents were critical of commercial radio for providing misleading and incorrect information.[53]

The Inquiry has sought to locate some benchmarks from other reports of a similar kind, in order to make some assessment of the relativity of these responses, but there are variations in the reports.

The Centre's research is the first of its kind in Tasmania and as it is a preliminary report, care needs to be taken in interpreting its findings until the final report is available. It may be difficult even then to be too specific about the outcomes as the sample size is small, it only included residents of the affected areas, responses may be influenced by personal circumstances, and there is a wide variety of responses. However, what it does indicate is that people respond differently before and during bushfires and this should be taken into account when designing communication campaigns.

Research has also recently been conducted in Victoria to examine the community response to fire threats in areas affected by three of the more significant fires in 2012–13.[54] The research was intended to examine progress in achieving the Victorian Bushfire Safety Policy Framework, which has five key policy areas, and to obtain a better understanding of how people prepare for and respond to fire threats.

The key policy area on 'fire danger information and warnings' is directly relevant to the discussion in this part, and the research found that people were active participants in the warning process, receiving, interpreting and passing on information to others. Most people became aware of fire threats through their networks and they generally wanted specific information about the nature of the threat to them and the action they could take.

Patterns of behaviour in people were observed and seven archetypal groups identified. However, it was stressed to the Inquiry that those who fitted these categories were not

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53 Preliminary Report on the January 2013 Fires, at pp. 30 and 31.

54 Review of the Community Response in Recent Bushfires, Fire Services Commissioner, Government of Victoria, 31 July 2013.

rigidly characterised, and they may vary depending on any change in their or the surrounding circumstances. A better understanding on the different ways people approach and think about fire risk is important. It also reinforces that a one-size-fits-all approach to warnings and information is less likely to be as effective as one that tailors its approach to motivating different types of people. The research suggests a number of opportunities for improving the use of alerts and warnings and providing information, such as:

- making better use of local networks for passing on information

- using telephone alerting more extensively, and not limiting it to emergency warnings

- changing the form and content of alerts and warnings to make them more specific and helpful for people in understanding how they may be affected

- increasing the capabilities of information units.

This Victorian research is very informative and while it will require careful analysis and understanding, and may need to be supplemented by further research, it reinforces the point that there should be a more informed approach to communicating with people. Blanket, routine and inflexible approaches are likely to only have a limited success. TFS should review its communication approach, especially for alerts and warning messages, and consider:

- designing information, alerts and warning campaigns to fit the circumstances of particular fires and those who are likely to be affected by them

- adopting a proactive preventative approach wherever possible

- using multiple methods of communication where suitable

- tailoring the form and wording of information, alerts and warnings to suit different groups of people

- carefully considering words that are used

- issuing different alerts and warnings in the same fire where suitable

- catering for culturally and linguistically diverse people and vulnerable groups.

Recommendation 72 – that Tasmania Fire Service review its approach to communicating with communities threatened by bushfire and consider the matters referred to in this Report.

Recommendation 73 – that Tasmania Fire Service promotes a structured approach to research across Australia, to provide a shared understanding and the capacity to benchmark and judge performance.

Recommendation 74 – that Tasmania Fire Service develops a research base from which to inform the design of communication campaigns for communities threatened by bushfire.

The Effectiveness of Community Alerts, Warnings and Information

In emergencies, public information is critical and, while the means of providing information have increased significantly in this communications/information age, so too has the demand. The

approach taken to providing public information was reasonable, lessons have been learned, and action is being taken to enhance future capabilities.

Social media provides a means of improving public information and issuing warnings. It was used to some extent for public information but, given the level of capability available to agencies at the time of the fires, it could not have been a major part of a communications strategy. Again action is being taken to enhance capability in this area, though it is likely that this won't go as far as it could do.

Very little was done to actively control the negative consequences of people using social media in emergencies at the time of the fires. Plans and arrangements should be made to achieve some measure of control in the future.

Alerts and warnings were used extensively, undoubtedly more so than at any other time. Protection of life through warnings was a higher priority for TFS.

There were some difficulties with Emergency Alerts, and improvements can be made with the timing and content of messages, as well as the manner in which message campaigns are designed.

The most disappointing aspect of warnings was the failure to sufficiently use the predictive modelling in a proactive/preventative way in warning affected communities. The Inquiry is

Image courtesy of Bernard Plumpton

unconvinced by the explanation provided. To the contrary, there was every reason to use the simulation provided. There are doubts whether the structure of the TFS control arrangements are sufficiently robust to be more proactive in a strategic way. Delivering warnings to people under threat in an immediate evacuation mode, as was done when the Forcett fire was burning out of control towards Dunalley, is not a satisfactory alternative. In the process of saving lives it probably also put lives at risk.

Overall, though it is not possible to be definitive, the extensive use of warning messages and the emergency warnings by TFS and TASPOL personnel in the field is likely to have contributed to saving lives.