FIRE SERVICES
COMMISSIONER
VICTORIA

Operational Review

Kentbruck Fire
January 2013

Prepared by IRS Services

August 2013

LEADERSHIP
INTEGRATION
ACCOUNTABILITY

WORKING IN CONJUNCTION WITH

CFA

MFB

State Government Victoria Department of Sustainability and Environment

1 Authorisation

This review was undertaken in response to a request by the Fire Services Commissioner. Authorisation was confirmed in a letter addressed to Chief Fire Officer Alan Goodwin dated 1st February 2013. A copy of the letter is included at **Attachment 1**.

The purposes of the review were detailed in the letter. Both fire agencies, CFA and DEPI were provided with a copy of the letter in order that they were aware that:-

a review was to be conducted
it would be structured around the content of the FSC Interim Performance Standard
it was not to focus on operational performance. The established operational debrief processes would undertake that task.

Since the Review was to be conducted around the content of the FSC Interim Performance Standard it would provide an opportunity to refine the Standard as well as identifying opportunities for improvements of other fire management practices and procedures. It would also provide comments on the development of the performance measures that are yet to be included in the document.

2 Background

This fire started on the 4th January 2013, a day of predicted extreme fire weather and a declared day of Total Fire Ban. It originated on the Portland – Nelson Rd in the vicinity of plantations and under the influence of strong winds quickly extended into and through the pine plantations and into the adjoining National Park.

The official Bureau of Meteorology weather observations taken at Cape Nelson near Portland recorded a 9am temperature of 31.4°C and RH of 28% and Northerly wind at 35km/h. This soon began to back Westerly then to a South Westerly stream with a maximum wind gust of 59km/h at 13.20 hours. The 3pm observations were Temp 27.7°C, RH 44% and Wind westerly 26km/h. The maximum temperature for the day recorded before the westerly wind change was 41.9°C.

The first report to DSE was at 14:36 hours by Fire SA who had received the initial report because 000 arrangements for that part of Victoria channel calls to South Australia. The first responding DSE crews arrived on scene at approximately1500 hours. By late evening of day 1 the fire had burned an estimated 1277ha of pine plantation and National Park. Direct attack on the northern perimeter was not possible due to various factors that impeded access, particularly the unstable ground.

There had been a previous fire in the National Park area during the 2009 fire season. The regrowth of vegetation in the intervening years had been significant. The area has few roads and tracks and the off road ground conditions were known to be marshy and unstable making direct attack by ground resources difficult and potentially hazardous for crews unless working from established tracks and roads.

The frequency, strength and direction of the wind changes experienced during this fire (see **Appendix A**) complicated the fire fight and added to the difficulties of determining and maintaining effective control strategies and objectives because of the changing threats and the constant need to redeploy resources.

The initial response was appropriate considering the circumstances and included the prompt dispatch of aircraft to attempt to contain the fire before it entered a known difficult to access

area. The fire was not considered to be controlled until early morning on the 11th January 2013.

Around 100 personnel were still engaged in patrol and blackout activities on the 17th January.

The final size of the area burnt was assessed to be 12055ha. There was no loss of life, no serious injuries and no loss of major structures.

3 Review Methodology

This Review was conducted by gathering all available data files relating to the Kentbruck Fire from Fireweb at the State Control Centre and reviewing their content.
The progressive development of the fire and the changes to the objectives and strategies implemented during the fire were obtained from the files downloaded from Fireweb. Additional detail was sought during the interviews conducted with nominated personnel that filled key Command and Control roles during the operation. Progress mapping, including Linescans were reviewed. Additional documentation, including the records of debriefs, were collected during visits to the ICC at Heywood and the CFA District Headquarters at Hamilton.

Interviews were conducted with key members of the Incident Management Team (IMT) and Regional personnel. (See List of individuals interviewed at **Appendix B**)

4 Observations

Operational Framework, Structures and Function

Information Flow between Tiers of Command and Control

The interviews with IMT personnel revealed that maintaining effective information sharing between all levels of the Control Structure increased with the complexity and size of the incident. More people in the teams at each level creates more interactions between individuals within a team and between the different levels in the line of control. Large teams invariably involve people from other workplaces who are not familiar with the local scene and people. This impacts on the interchange of information. Filtering of information during briefing meetings is an unavoidable feature of any complex operation as the level of activity and team numbers compete with time constraints.

Incident Management Team members interviewed commented that they found it more difficult to maintain effective management of information and the cohesiveness of the team as the number of people in the IMT increased. They also noted that the extent of direct communication with key personnel at both Region and State tiers was greater than they normally experience.

The extent of direct communication between functional personnel at and between each level in the line of control increases as the significance of the fire grows and as the number of resources allocated also grows. This increases the likelihood that there are conversations and information exchanges that the Incident Controller (IC) and their immediate IMT members may not necessarily be aware of.

The reports of confusion about knowledge of the arrival of Strike Teams without prior notice is perhaps an example of this.

At both Region and State levels there was a degree of concern that the IMT were having difficulty in determining a clear objective and strategies for the fire. In fact, the rapid spread of the fire into the National Park caused the IMT to adopt the objectives and strategies used successfully for a previous fire in 2009. They were confident that the strategies that had proven to be effective in 2009 could be utilised successfully again on this occasion.

Despite having decided to adopt similar strategies to those used for the 2009 fire, they had not specifically communicated this decision up the line of control. The first written Incident Action Plan (IAP) able to be located on Fireweb is timed at 2200 hours on the first night; some 7 hours after the fire began.

The delay in provision of a documented Incident Action Plan (IAP) or detailed Situation Report (Sitrep) to higher levels in the line of control was one of the reasons why there were concerns as to how well the IMT were coping. This is possibly, why some interviewees reported that at times they felt pressured by personnel from both Region and State levels to adopt particular courses of action.

Personnel at Regional Control level were aware of the access difficulties existing in the fire area. They knew that achieving containment would require significant additional resources and an extended commitment to deal with the larger fire area and extended perimeter that was likely to develop. This was the driver for upgrading the fire to a Level 3 event.

Roles/Functions of Tiers

Members of the IMT reported having had conversations with individuals from Region and State tiers that suggested to them that some personnel at higher levels were still adjusting to the defined role of monitoring and strategic oversight with the actual fire management role clearly the realm of the Incident Controller.

The Line of Control detailed in the **State Command and Control Arrangements for Bushfire in Victoria 2012** is very clear. Past experiences demonstrate that ignoring or bypassing established lines of communication can result in confusion, duplicated effort and/or omissions. Organised tele-conferences and briefings need to include representatives of each level/tier to ensure all have a common view of the situation, the objectives and any decisions made.

The importance of adhering to the Line of Control for all information flows and the benefits to be gained from regular updates of information systems needs to be reinforced with personnel at all levels / tiers of Command and Control.

There were several examples of resources (Strike Teams, Personnel and Aircraft) reporting their arrival to the Incident Control Centre (ICC) but there being no record of a request having been made or deployment advice having been received by the Incident Controller. (Item 3.6 of **State Command and Control Arrangements for Bushfire in Victoria 2012** refers) Adherence to the established protocols for mobilisation and deployment of resources would preclude arrival of resources without notice.

Local personnel were used in managing significant incidents with minimal direct contact from staff at the State Control Centre. On this occasion, they noticed a greater level of interest and attention from State level than in the past. This was considered to have occurred because there were few other fires of any consequence across the State, the extended time being taken to gain control of the fire and the extensive resources, particularly the number of aircraft, committed to this fire

The high level of attention and contact from the Region and particularly the State level was not something members of the IMT had usually experienced and this created additional pressures. They felt that their performance was being questioned.

Incident Management structure at local level

Management of the shift changes became more difficult with time because the shift cycles for the IMT and particularly the Divisional Commanders were different from those of the fire ground crews. This was mainly due to the use of Swing Shifts for crews and 12 hour shift patterns for the IMT and Divisional Commanders.

Cross border support by CFS and forest industry personnel was effectively integrated into the fire fighting operation and into the incident management structure. This reflected the good relationships and procedures that had been developed as a consequence of past operational experiences and exercises.

The debrief notes for the IMT and key command personnel are attached at **Appendix D**

Emergency Management Team (EMT)

An EMT consisting of representatives from State Emergency Service, Ambulance Victoria, Victoria Police, South Australian Country Fire Service, Department of Human Services and Glenelg Shire was established early in the operation. It was located in an adjacent building to the ICC. This arrangement facilitated briefings and the sharing of information between the IMT and the supporting organisations and helped to achieve coordinated and quicker responses to requests for actions such as establishment of traffic management points and the planning and conduct of community information meetings.

The location of the EMT adjacent to the ICC was considered to be a more effective and efficient system of achieving integrated and coordinated actions than was the old arrangements where a Municipal Emergency Co-ordination Centre (MECC) was operating from a different location remote from the ICC.

The debrief notes for the EMT are available at **Appendix C**

Forest Industry Brigade involvement

The establishment of an Industry Brigade may be required by the CFA to take responsibility for fire prevention and suppression and the saving of life and property in accordance with Section 23AA: Industry Brigades; of the Country Fire Authority Act 1958. The plantation industry is one industry where CFA has chosen to require such Brigades.

Plantation industry resources were in attendance early in the fire fight and were well integrated on the ground. They were deployed to the sectors involving plantation assets. An industry representative was present at the ICC as a technical advisor to the IMT. However, at the IMT debrief the plantation industry personnel stated that they believe they should be included in the decision making processes of the IMT when their assets are involved or under threat because of their detailed knowledge of the assets.

The estimated current value of plantation losses made immediately after the fire was contained was $12 million.

Preplanning and pre formed Teams

Pre-season meetings and training coupled with the State Exercise had provided opportunities for personnel to meet and familiarise themselves with the ICC layout, systems and resources.

The Heywood ICC was staffed in excess of the required minimum standards set out in **JSOP 2.03 Incident Management Teams – Readiness** at the time the fire started. The Region actually have a policy of staffing ICCs in excess of the specified requirements because travel times for additional personnel can be significant given the long distances that may need to be travelled. On the first day of the fire, 4th January, there were additional personnel positioned in Hamilton to facilitate their response to any of the nominated ICCs (Hamilton, Heywood, Horsham, Warrnambool, Colac, Ararat) in the western part of the Region with minimal delay.

This approach has been established because the Region is prone to rapidly developing grass fire situations that very quickly load up an IMT as resources are dispatched in large numbers and so it is desirable to have additional personnel already in place.

Some interviewees expressed concern that meeting the requirements of **JSOP2.03** creates a shortage of experienced personnel for key fire ground command roles. This highlights the difficulties of maintaining a balance between the competing needs of staffing an IMT and having suitably experienced personnel available to fill key fire ground command roles.

It also highlights that there is a need to develop a larger pool of trained and competent personnel.

All personnel interviewed were comfortable with their level of preparation, having used the State Exercises as a familiarisation opportunity. They expressed confidence in their ability to successfully manage any Level 2 situation but admit the limited availability of accredited Incident Controller, Operations Officer, and Planning Officer personnel, in particular, within the Region stretches resources during Level 3 operations.

Current CFA volunteers who are Level 3 accredited expressed concern at the limited interest from other volunteers to seek Level 3 accreditations. This has implications for the future availability of sufficient Level 3 personnel.

The Region has a large pool of suitably experienced local personnel to ensure that local knowledge can be integrated into IMTs as required by **JSOP2.04 Local Knowledge**. They were also able to provide suitable experienced personnel with local knowledge to each of the visiting Strike Teams.

Objectives, Risk Assessments and Strategies

Incident Management Strategies *and Action Plans*

The initial response was of appropriate size and concentration given the forecast Fire Danger Index and was consistent with established local procedures. It was quickly increased as a consequence of the initial size up and air observation report that showed the fire had spread rapidly into a section of the National Park known to have limited access due to unstable ground and few constructed roads or tracks.

Knowledge of the fire behaviour and difficulty of containment of previous fires in the same area, was the main factor influencing strategy selection when the first IAP (2200 hours on 04012013) was developed by the IMT.

The assets under threat in the initial stages were the pine plantations and the National Park. There was no community under immediate threat, however as the fire developed over subsequent days the threat to private lands and eventually to small rural communities became more of a concern. Appropriate control objectives and strategies to contain the fire, protect private assets and to provide timely warnings to the public were then developed and implemented.

The broad strategic objective throughout the fire was to contain the fire on public land by establishing control lines utilising the existing constructed roads, tracks and previously constructed fire trails. This approach was heavily influenced by the successful strategies used in the 2009 fire, the known unstable ground conditions, and the presence of sensitive cultural areas within the fire area.

The presence of cinnamon fungus (Phytophthora cinnamomi), a mould organism that is responsible for dieback of trees and shrubs, and that can easily be spread to other areas of vegetation by contamination of vehicles and equipment working in an infected area was another reason to avoid all but essential vehicle access to that part of the fire area.

The continually changing weather conditions required adjustments to the initial strategies and the deployment of resources, including the use of aircraft. The increasing threat to private property and to the Glenelg National Park prompted significant change to strategies and tactics and also to the content of public warnings and community information.

Aircraft deployment and effectiveness

Fire spotting aircraft were used initially for observation and this provided the early intelligence about the rapid development and potential spread of the fire. A series of photographs and video were taken from the fire spotting aircraft and they provide a good visual record of the rapid spread of the fire in the National Park.

Water bombing aircraft from within the Region were initially used for direct attack on the fire perimeter. These aircraft were subsequently deployed to provide added security to the ground crews allocated to construction of containment lines and burning out the difficult to access heath land.

Aircraft were also used for control of hot spots within the heath land areas where ground vehicles could not gain access in order to reduce the likelihood of spotting and for control of numerous spot fires outside the containment lines. When the fire threatened private land they were deployed to asset protection, consistent with the established priorities.

It is likely that there were periods when aircraft were committed to tasks that would justify their retention but where their use was not necessarily essential. This was due to a concern that if any aircraft, particularly medium and heavy rotary wing bombers were released then they may be deployed to fires in other parts of the State and consequently would not be available for deployment at this fire when required for asset protection and to support ground forces trying to achieve and maintain containment.

Aircraft were used for tactical purposes as the fire approached the Glenelg River gorge and also wherever fire threatened private assets. Rotary wing aircraft were particularly useful because of the accuracy of their drops and their relatively short refill times.

A helicopter equipped with the Aerial Drip Torch (ADT) was used to light up and burn out an extensive section of the unstable ground heath land within the National Park that was inside the constructed containment line.

Aircraft Management Issues

The Region's pre-planned airbase for the South West was located at Casterton airport. Late in the day the Air Attack Supervisor decided to transfer the base to Portland because it was closer to the fire area. The Portland airport had supplies of Avgas (fixed wing aircraft) but no Jet A1 (rotary wing turbine powered aircraft) on site.

This caused significant logistical issues because of the need to arrange the transfer of Jet A1 fuel, the retardant mixing plant and retardant supplies and the mixing plant operators from Casterton. It also created difficulties for the Logistics Unit who then had to try and find additional accommodation in Portland for the aircrew, ground staff and mixing plant personnel.

The facilities for the Aircraft Officer in the Heywood ICC may be adequate for most operations the District might experience but they were inadequate for an operation of this scale and involving so many aircraft. The cell was located in a small passage leading off the side of the Operations area and there was no room for expansion to accommodate additional personnel.

The essential information technology associated with the effective deployment of aircraft was not integrated into the IT services within the ICC. The radio communications equipment were stand-alone installations and did not provide sufficient flexibility for a multi-channel / multi operator situation.

Aircraft Logistical Issues

The influx of aircraft generated accommodation issues for aircrew and support personnel that were aggravated by the fact that they worked until last light before it was possible to know where they would spend the night and how many actual people were involved.

The details of support personnel that are deployed with aircraft, such as an Air crane, are not always provided when the aircraft are dispatched. 'T' Cards are not provided.

The aircraft dispatch system should be modified to provide the receiving IMT with the full crewing and support details so that the Logistics Unit can plan for their needs.

At this fire the number of aircraft (13) being managed by the Aircraft Officer exceeded the generally accepted Span of Control (5-7) but there was neither the space, nor the necessary communications equipment to utilise another Aircraft Officer had there been any qualified Aircraft Officers available to assist.

General Comments on management and use of Aircraft

The Aircraft Officer stated that there was a general need for additional specialist personnel across the State bearing in mind the increasing use of aircraft. There are currently insufficient numbers of accredited Air Attack Supervisors and Aircraft Officers to staff all ICCs across the State in accordance with the requirements of **JSOP2.03 Incident Management Teams – Readiness Arrangements**. This also makes provision of adequate relief of key personnel very difficult.

He also reported deficiencies in the training records system for recording of 'On the Job' (OTJ) experience. An audit conducted by the CFA Regional Commander of the competencies of all CFA personnel listed for specialist roles within IMTs in the lead up to the Fire Danger Period showed that he needed to renew his competency as an Aircraft Officer. The reality was that he had completed all necessary training and had undertaken periods in the actual role that maintained his competency. None of this information had been entered into the Training Records system. The reasons for this need to be addressed in order that the accuracy of the records system can be relied on.

Reception and Use of Support

There were known cases of Strike Teams arriving at Heywood and being advised that the IMT were not aware they were coming. Consequently their logistical needs were not catered for and deployment tasks had not been determined for them.

Crew members who had made special arrangements to be available were obviously annoyed at this situation. One of these teams was put to work erecting tents at the Base Camp. Not a task they were expecting based on the briefing at the time of their dispatch from their home location.

There were also several reports of requests for Strike Teams and Relief Crews being made, cancelled and then remade.

Effective use of Strike Teams crewed by volunteers is essential to maintain their future viability and availability. Improvement to resource management / planning and good logistical arrangements remains a significant challenge for any major incident where support by teams travelling long distances are required to provide support. This extends to the arranging, dispatch and use of relief crews for those teams.

Coordination, Information Flow and Community Information

Community Information and Responses

Advice and Watch and Act messages were issued in a timely manner through local media outlets and by use of One Source One Message (OSOM). When the fire began to pose a threat to private property Community Information sessions were arranged and conducted, particularly at Dartmoor, the town servicing the needs of small communities to the North of the fire. The township of Nelson also hosted Information sessions when the fire extended to the West and involved country in the vicinity of the Glenelg River.

Media broadcasts of interviews conducted with personnel from the SCC created a degree of confusion in the minds of the community because of inconsistencies between the details delivered locally and available from Victorian Bushfire Information Line (VBIL) and OSOM and those contained in the interview.

After the conduct of Community briefing meetings it became apparent that arranging and conducting mass briefings was not serving the needs of individuals. An Information Point was established in Dartmoor where individuals could attend and obtain more detailed information relating to their particular location / property. This concept was well accepted by the community because it was flexible and responsive to their needs.

The municipality (Glenelg Shire) hold a view that they should be organising and conducting these meetings.

Traffic Management Points (TMPs)

TMPs were effective at managing movement of vehicles on roads affected by the fire. They were staffed by commercial contractors under direction of Police and Vic roads. A shortcoming of this was that the personnel at these points were not able to exercise any discretion and this led to the potential for a degree of aggravation with local landholders who needed to move around the area to check on the welfare of their stock and other assets.

There were cases of locals attending community meetings and then being denied access to return home. This could be counterproductive in the future as people will refuse to attend meetings if they think that they will be unable to return home.

A system of tamper proof wrist tags was developed and used to overcome this issue later in the campaign and TMP personnel were briefed accordingly to allow tagged people through unless there was a specific 'closure' order issued.

Media Management

The impact of inconsistencies in the content of media interviews and reporting was a concern for the Information Unit of the IMT. The issue may have been made worse because Regional broadcasters obtained detailed comment and information direct from the IMT whilst Melbourne media obtained their information from SCC personnel. The inconsistency in message content, local detail versus state overview, caused confusion in the minds of community members who heard both versions.

Debriefings and Lessons Identified

The recorded notes from the debriefs conducted for the IMT and operational personnel and for the EMT are included at **Appendices C and D.**

The Shire of Glenelg conducted four community debriefs. Those who attended reported that the debriefs tended to focus on the response phase and management of the fire rather than the effectiveness of community warnings and the recovery phase.

5 Discussion

Operational Framework, Structures and Functions

A number of the interviewees commented that information sharing becomes more difficult as the size of the IMT increases. The Regional Debrief records concerns about sharing of information between Operations and Logistics. This may help to explain some of the issues raised by members of Strike Teams. Examples of typical breakdowns in internal sharing of information are:-

- Operations decisions may result in resources being re-deployed from one sector to another but the transfer may not be communicated to the Logistics Unit. Consequently, meals are sent to wrong locations.
- Relief crews get bussed to the fire line and find that their trucks have been deployed to a different sector.
- The Logistics Unit arranges for relief crews for a Strike Team to be provided but then finds that Operations have decided the Strike Team is to be released.

The extent of direct communication between functional personnel, level to level e.g. Logistics Unit at IMT to Logistics at Region or State; increases the likelihood that different information or interpretations of information may occur. The larger the IMT the more difficult it becomes for the Incident Controller to manage these multiple paths of information exchange, both within the IMT and up the Line of Control.

Personnel from both IMT and RMT tiers reported experiences and conversations that indicated that the defined functions/roles of each tier in the State Control Arrangements are still being bedded in.

Fire Prediction Modelling

Fire prediction modelling is now able to be undertaken at each level of control. This creates the possibility that each level of control may generate a prediction that varies from that generated by the Fire Behaviour Analyst in the IMT since the result is dependent on the data entered. The IMT have the distinct advantage of local knowledge and the ability to enter data based on what is actually occurring, for example, the latest fire perimeter mapping and actual weather rather than forecast weather.

There were conversations with individuals within the IMT that indicated that personnel at higher levels were undertaking detailed analysis of information and generating predictions which were then used to try and influence the decisions of the IMT. The **State Command and Control Arrangements** detail that the Regional and State levels should undertake a monitoring and oversight role directed at quality control of the processes of decision making undertaken by the IMT rather than a higher level of the Command and Control functions that are clearly allocated to the Incident Controller.

Preplanning and pre formed Teams

Regional managements from CFA and DEPI are aware of the need to increase the pool of accredited personnel able to undertake key incident management roles. Meeting the requirements of **JSOP2.03** requires the allocation of a large proportion of the available qualified personnel. It also soaks up experienced personnel that might be more valuable on the fire ground in Command roles.

This highlights the dilemma of Regions with limited resources as they try to maintain a balance between readiness and the capability to respond experienced front line personnel with appropriate resources to incidents.

Logically, it also highlights the importance of establishing a sufficiently large pool of trained personnel for both ICC needs and fire ground needs.

There are deficiencies in the numbers of Level 3 personnel that are currently available. Current Level 3 accredited CFA volunteers from the Region who had involvement in the IMT commented that it is becoming increasingly difficult to identify volunteers who are prepared to undertake the formal training and accreditation requirements for Level 3 Incident Management Team roles.

A contributing factor is that the use of pre-planned ICCs and IMTs has reduced the opportunity for local personnel to gain experience and develop an interest in higher level Command and Control at fires that were once managed by Group personnel.

A second factor is the declining and ageing population in the area along with the tougher economic environment for landholders who now have less discretionary time for community involvements generally.

The pre-season gatherings and exercises were seen as opportunities for familiarisation with each agencies IT systems, however the occasional use of software is not a good foundation for efficient operations when working under operational pressures. The early adoption of a common incident management information system would help to address both the competency of users and duplication of information on each agency's system.

Objectives, Risk Assessments and Strategies

Management and use of Aircraft

Aircraft are recognised as a valuable and effective tactical resource. Their tactical use to support the first responding appliances to gain control in the early stages of a fire is one of their principal advantages. Incident Controllers are reluctant to release them until sure that there will be no further requirement for them.

Since aircraft are a finite resource it is important they be available for deployment where they will produce the greatest benefit and return on investment. Retention at established fires where threats to assets are minimal needs to be discouraged unless the control strategies clearly indicate they are essential to achieving success.

Decisions about retention/release of aircraft may benefit from the creation of ready reference capability criteria along the lines of the fire line construction guidelines used for bulldozers that would provide guidance on what is reasonably achievable considering fuel types, fire intensities, accessibility and risk exposures.

Guidance Note FSC03/2012, Factors to consider when Allocating Fire fighting Aircraft to Bushfires establishes the background and principles for the deployment of aircraft. It acknowledges the effectiveness of aircraft but it also draws attention to their limitations. When deployed aircraft are not being used to maximum benefit at a fire retention on an "in case things get worse" basis may compromise response and control efforts elsewhere in the State. The development and inclusion within the relevant SOPs of guidance criteria about when aircraft are to be released would help all control levels to determine the merits of aircraft retention or release.

The Aircraft Officer expressed his opinion that there is a need for development of a larger pool of specialist personnel to be available across the State in order to be able to appropriately staff Air Operations Units keeping in mind that there is a trend to increasing use of aircraft. There are currently insufficient numbers of accredited Air Attack Supervisors and Aircraft Officers to staff all ICCs across the State as required by JSOP2.03. This shortage of accredited specialists also makes relief of personnel very difficult.

The weaknesses in the system of reporting and recording actual on the job experience need to be investigated, identified and addressed. On the Job, experience is a valid and accepted means of maintaining competencies. If training records are to be used as the basis for verification of competencies and accreditations then they require robust systems and procedures to ensure they are maintained in an accurate and timely manner.

Mobilisation for aircraft should provide the receiving IMT with the full details of the actual aircraft, its crewing and any ground support crew details as is done for Strike Teams. This would enable the Logistics Unit to plan for their welfare needs. There are purpose designed dispatch and tracking packages that are capable of fulfilling this function and their suitability for operational use and compatibility should be investigated.

Given the complex nature of air operations in and around fire areas with visibility impaired by smoke it is desirable that the ICS Principle of Span of Control be adhered to with regard to the management of deployed aircraft. There are implications here for both the training of additional specialist personnel and for the provision of adequate workspaces and facilities in ICCs to facilitate improved management of air operations.

The information technology associated with the effective deployment of aircraft needs to be integrated with the Incident Management Software being used by the Incident Management Team. Radio communications equipment must be able to support a multi-channel / multi operator situation, particularly where multiple aircraft are deployed and operating in support of the various ground sectors that have been established by the IMT.

Strike Team Logistics, Reception and Deployment

During this fire there were several occasions when requests for Strike Teams and Relief Crews were made, cancelled and then remade.

The Regional debrief **(Appendix D)** records that ‘differing information given from different Units’ may have contributed to the confusion about resource needs and the requests for Strike Teams and Relief Crews made by the Region. There are established protocols and procedures for requesting and mobilising resources that have been shown to work effectively.

Incident management personnel need to develop a greater awareness of the difficulties caused by requesting additional resources and then cancelling them. If resources are being requested to establish a reserve or to maintain security of a heavily committed area then that needs to be conveyed with the request. It is understandable that where long distances of travel are involved circumstances can change between request and arrival.

One Strike Team had driven several hundred kilometres with the clear expectation that their services were urgently required. On arrival, they were told that they would be fed and bedded ready for work in the morning. Their accommodation was to be at a College in Hamilton, several kilometres from Heywood. On arrival at the College there was no one to

be found and the premises were locked up. After several phone calls, they gained entry but there was no linen on the beds. Having arrived at the venue about 2000 hours, they eventually bedded down at 0030 hours.

Coordination, Information Flow and Community Information

Community Warnings and Advice

The **Fire Services Agencies Performance Standard for Information and Warnings**, clause 6.3, makes it clear that the primary responsibility for issuing information and warnings lies with the Incident Controller. The purpose of warning messages is to convey to the community an accurate mental picture of the size, behaviour and condition of a fire so that they will be prompted to take appropriate actions.

At this fire, some warning messages were changed at the suggestion of the Information Unit Leader and approved by the Incident Controller after feedback from members of the public that clearly indicated that the standard wording -'This fire is being controlled' - was not conveying the right message to members of the public.
To a layperson the words suggest that the fire is not a problem and that services in attendance are not too concerned about it because it is *being controlled*.

After carefully choosing suitable words that would clarify the meaning of the message the Information Unit leader and the Incident Controller expressed disappointment that they had received criticism from a member of the Information Unit Team at the SCC. The basis of the criticism was that the standard wording had been changed.

This suggests that the standard template messages may need review. Public Information Officers at ICCs need to be able to vary the standard words where and when it is necessary to do so. The standard template should be used as a flexible guide to simplify the issue of messages and to maintain a degree of similarity in format.

JSOP4.01 Incident Warnings and Advice makes it clear that the Incident Controller is responsible for the issue of community warnings and advice and that they must have the ability to provide whatever information and warnings they consider to be necessary.

The Regional Debrief identified that Public Information, including the website, needs to include a suitable map that shows the location of the fire perimeter and possibly the fire spread projections. This suggestion was a result of feedback from members of the public.

Media Management

Media reporting for this fire, particularly during news broadcasts, included grabs from interviews conducted with SCC personnel. Some of the summarised responses made during interviews were not consistent with the more detailed information that had been issued locally by the Incident Controller. The inconsistency in message content caused confusion in the minds of community members who heard both versions.

This situation is aggravated for fires that occur in those parts of the State serviced by Regional ABC stations where information may have been provided by members of the IMT direct to the Regional Station in their role as the local emergency broadcaster. It is not uncommon for these stations to arrange for regular on air interviews with the Incident Controller.

Melbourne media may seek specific information about a particular fire that has not been included in media releases from the IMT. Anyone participating in an interview should refrain from providing a generic answer unless they know that their answer will be consistent with locally released information. Alternatively, the journalist should be referred to the relevant IMT so that they receive the latest, accurate information.

Fire Services Agencies Performance Standards

The **Interim Fire Services Agencies Performance Standards** were used as a framework for the conduct of this Review.

The Requirements section of the Interim Standards consists of five sub sections, being:-

- Operational Framework, Structures and Functions,
- Pre-planning and pre-formed teams,
- Objectives, Risk Assessment and Strategies,
- Coordination, Information Flow, and
- Community Information and Debriefing and lessons learnt.

Each sub section contains a list of requirements for which performance criteria (what needs to be done) will be developed to define the desired results of the actions taken by fire services agencies.

Fire services agencies are also required to operate in accordance with the purpose of the **State Command and Control Arrangements for Bushfire in Victoria 2012** and the objectives of **Joint SOPs** established by the agencies and the **Guideline** documents produced by the Fire Services Commissioner.

These latter documents have been written and developed to establish performance criteria and expectations for effective management of emergencies. It is likely that when the agencies comply with the purpose and objectives of these procedures and guidelines they would also be meeting the requirements of the Standards.

The review identified an opportunity for better alignment of the content of the **Interim Fire Services Agencies Performance Standard**s with the existing performance oriented documents that would facilitate the monitoring and assessment of performance. This would have the added benefit of not requiring amendment of the **Standards** when any of the **Guidelines** or **SOPs** are changed.

6 Findings

Operational Framework, Structures and Functions

Given that this was the first busy season that the new bushfire control structure has been through it would be logical to expect that there would be some opportunities for improvement identified.

The observations and findings provide a consistent indication that there are opportunities for improvement in knowledge, application and adherence to the defined roles, functions and protocols for communication and information flows between each tier of the **State Command and Control Arrangements for Bushfire in Victoria 2012.**

The collective observations and findings from all fire events that occurred this season will, no doubt, provide guidance for refinement of the **Performance Requirements** and the yet to be determined **Performance Criteria.**

Roles/Functions of Tiers

Personnel occupying key roles at each level of the Line of Control need to become more familiar with and adhere to the defined functions of the level they are working at. There would appear to be a need for more emphasis on the defined roles during training and exercising to establish the required Control Framework.

Fire Prediction Modelling

Consideration be given to reviewing how and where modelling is carried out in order that the models generated are based on the most recent and accurate data available. The IMT are most likely to have access to this information. Where an IMT does not have the resources or personnel to carry out this important function the next level in the Line of Control should undertake the task.

The object being to avoid duplicated effort and varying outputs due to inputs of different or deficient data. All levels should be sharing and using the same predictions when considering, determining or analysing the strategic options available and the appropriateness of the Incident Action Plan. .

Incident Management structure at local level

There are extensive private plantations in country areas and forest industry companies have significant assets at risk when fires occur in or near their assets. Plantation industry personnel participated in the IMT as Technical Specialists but expressed the view at the debrief that given the extent of their assets involved they should have been included as an active member of the Operations Unit.

There have been several fires in recent history that involved forest industry assets. There would be value in considering how they might be more effectively integrated into the decision making processes of an IMT when their assets constitute a significant actual involvement in a fire. A direct role in development of objectives and strategies, perhaps as a deputy in the Planning Unit might be one way of achieving this.

Emergency Management Teams

The location of the EMT adjacent to but separate from the ICC was found to be an effective and efficient way of facilitating briefings and achieving integrated and coordinated actions by support agencies in a timely manner.

A MECC may continue to operate from a different location in order that the affected municipality can manage its obligations, however the establishment of an EMT will ensure that information flows between the ICC, the support agencies and the MECC is more accurate and timely.

It is suggested this arrangement be promoted as a desirable model.

Preplanning and pre formed Teams

The Region have identified those key positions where additional personnel are required and have initiated actions to address them prior to next Fire Danger Period.

Consideration needs to be given to identifying and treating the factors that deter volunteers from seeking Level 2 and 3 accreditations.

The concerns raised by the Aircraft Officer need to be addressed on a State-wide basis in order to ensure that there are sufficient competent specialists to maintain an extended operation, particularly since there is an increasing likelihood that aircraft will form a key part of responses to significant fires in the future.

If the Training Records System is to be used as the source for verifying the competencies of personnel then it is essential that the deficiencies in the system for recording and maintenance of the data be addressed. It was unclear whether the deficiency was a systems issue or a human error issue.

Objectives, Risk Assessments and Strategies

Aircraft

Guidance Note FSC03/2012, Factors to Consider when Allocating Fire fighting Aircraft to Bushfires establishes the background and principles for the deployment of aircraft. It acknowledges the effectiveness of aircraft but it also draws attention to their limitations.

Retention of aircraft that are not being used to maximum benefit must be weighed against how failure to release them may compromise response and control efforts elsewhere in Region or State. Incident Controllers are the appropriate ones to assess the needs for their own fire but Regional and State levels must seek regular reports so they can assess whether aircraft are doing useful work or should be re-deployed or returned to their base of operation.

There is a need for development of more objective guidelines on the effective deployment of aircraft to provide a framework for decisions about release and re-deployment when needs exceed the available resources.

The State Aircraft Unit and Logistics Unit need to discuss how the aircraft dispatch system can be made more transparent so that it will provide the receiving IMT with the full crewing and support details for each aircraft deployed so that the Logistics Unit at an ICC is aware of the total package being sent and can plan for their needs.

Resource Management and Logistics

Those involved in decisions about the requirement for additional resources and relief crews need to be more conscious of the immediate and longer term impact that changing requests has on the willingness of personnel, particularly volunteers, to make themselves available for deployment.

Requests for resources should include information that will enable crews to be provided with more realistic briefings of why they are required and the situation and the work they will be required to do on arrival.

Logistics Units must be adequately staffed to deal with the number of resources they are required to cater for and accommodate in order to avoid or at least reduce errors and omissions that are no fault of an overworked person or Unit. The development of staffing guidelines based on resource numbers would be a useful tool for Incident Managers.

Coordination, Information Flow and Community Information

Community Information and Warnings

The warnings issued during the fire were timely and appropriate.

The **Fire Services Agencies Performance Standard for Information and Warnings**, clause 6.3, makes it clear that the primary responsibility for issuing information and warnings lies with the Incident Controller. The purpose of warning messages is to convey to the community an accurate mental picture of the size, behaviour and condition of a fire so that they will be prompted to take appropriate actions.

At this fire, the changes made and approved by the Incident Controller to the wording of the standard warning message were made after receiving feedback from members of the public that clearly indicated that the standard wording was not conveying the right message to members of the public.

'This fire is being controlled' can be interpreted in a number of ways. To a lay person the words suggest that the fire is not a problem and that services are not too concerned about it. A more appropriate phrase might be 'This fire is not yet under control' or other words that clearly indicate that a fire is still considered to be a threat to nearby communities.

The standard wording needs to be reviewed and revised. Consideration should be given to developing a range of options for wording to suit situational needs. Alternatively, the wording of the template messages should be viewed as providing guidance rather than being considered as an unchangeable standard.

The Community Information Service established at Dartmoor was considered to be a more appropriate way of keeping the community informed than by using mass media because individual needs were able to be satisfied more effectively. The Information Unit members that implemented this approach intend using such a method again in future.

It is understood that similar arrangements have been used at other fires, e.g. Loch Sport; during the year.

It is suggested that the concept of local information service points be formalised as a recommended methodology of providing appropriate and timely information to communities and to meeting the needs of individuals. This methodology is particularly suited to smaller

country communities but may prove more difficult to implement in and around more populace areas.

The Regional Debrief identified that Public Information, including the website, needs to include a suitable map that shows the location of the fire perimeter and possibly the fire spread projections. This suggestion was a result of feedback from members of the public.

Media Management

The reporting of general summary information from the SCC is accepted as an essential service that must be provided. Media queries about warnings that have been issued need to be answered by reference to the wording of the official warnings issued by the Incident Controller. General comments may cause confusion to members of the public if the message is not consistent with locally broadcast messages.

If journalists are seeking specific comment on particular fires they should be referred to the relevant IMT in order that timely, consistent and up to date information is provided.

Traffic Management Points

Tamper proof wrist tags have been used effectively in the past to aid management of access and egress of residents. They were found to be an effective system at this fire also. The development of a management system and procedures for the issue and use of these tags should be formalised as a state-wide operating standard approach for use in the future. Traffic management personnel can be briefed to allow tagged people through the control point unless there has been a specific 'closure' order issued.

Internet & Phone Communication

Not all telecommunications providers service the area where this fire occurred. Those that did still had reception, capacity and bandwidth issues that affect the reliability of service. There are extensive areas of the South West of the State with no reliable mobile phone coverage. This makes the use of telephone and internet based warnings and software an unreliable method of reaching people. This situation exists in many remote country areas. Broadcast local radio provides the most reliable means of coverage in such areas.

Community warning and information arrangements and strategies in such areas need to recognise the particular strengths and weaknesses of local communications systems and be delivered accordingly to achieve maximum effective delivery.

Fire Services Agencies Performance Standard

The **Interim Fire Services Agencies Performance Standards** were used as a framework for the conduct of this Review.

Fire services agencies are required to operate in accordance with both these **Standards** and the purpose of the **State Command and Control Arrangements for Bushfire in Victoria 2012** and the objectives of **Joint SOPs** established by the agencies and the **Guideline** documents produced by the Fire Services Commissioner.

The review identified an opportunity for better alignment of the content of the **Interim Fire Services Agencies Performance Standard**s with the existing performance oriented documents.

If the **Performance Standards** were to acknowledge and capitalise on the purpose and objectives of the **Joint SOPs** and the **FSC Guidelines** documents then this could simplify and facilitate the development of the performance criteria and also the monitoring and assessment of performance of the fire services agencies.

7 Reference Documents

- State Command and Control Arrangements for Bushfire in Victoria 2012 - V2
- Fire Services Agencies Performance Standard – Incident Management Interim V1 15 Oct 2012
- Fire Services Agencies Performance Standard – Information and Warnings Interim V1 15 Oct 2012
- Reporting of Significant Fires / emergencies to Fire Services Commissioner FSCSOP 02/2012
- Regional Strategic Plan FSCSOP 04/2011
- Control of Major Fires FSCSOP 05/2011
- Incident Management - Incident Controllers Guide FSC GN 01/2011
- Transfer of Control FSC GN 02/2012
- Factors to Consider when Allocating Fire fighting Aircraft to Bushfires - FSC GN 03/2012
- Incident Management Teams – Readiness Arrangements JSOP2.03 – v7.0
- Local Knowledge JSOP2.04 – v3.0
- Incident Warnings and Advice JSOP4.01 - v7.0

8 Appendices and Attachments

Appendices

A. Daily Weather Observations at Cape Nelson for January 2013

B. List of Interviewees

C. Debrief Notes for Emergency Management Team

D. Kentbruck Fire Debrief Notes Incident Management Team

Attachments

Letter of Advice to Agencies that Review will be conducted

APPENDIX A Daily Weather Observations, Cape Nelson

Australian Government
Bureau of Meteorology

Cape Nelson, Victoria
January 2013 Daily Weather Observations

Date	Day	Temps Min °C	Temps Max °C	Rain mm	Evap mm	Sun hours	Max wind gust Dir	Spd km/h	Time local	9 am Temp °C	RH %	Cld 8th	Dir	Spd km/h	MSLP hPa	3 pm Temp °C	RH %	Cld 8th	Dir	Spd km/h	MSLP hPa
1	Tu	14.3	18.5	0			W	46	11:17	16.2	79		W	30	1014.8	17.0	79		W	24	1015.4
2	We	13.8	24.0	0			SSW	41	23:11	16.6	62		SE	11	1019.0	18.8	56		ESE	15	1018.6
3	Th	13.4	32.8	0			NE	35	00:46	22.2	47		W	9	1014.1	28.0	35		W	17	1011.0
4	Fr	21.1	41.9	0			WSW	59	13:20	31.4	28		N	35	1004.2	27.7	44		W	26	1003.0
5	Sa	16.6	21.3	0			SSE	41	20:13	18.7	76		SSE	20	1016.0	20.8	68		SSE	22	1018.9
6	Su	15.6	20.6	0			SE	44	15:23	18.0	74		SE	24	1025.4	19.8	68		SE	24	1025.5
7	Mo	16.6	22.6	0			SE	46	05:46	18.9	83		E	31	1019.8	21.6	76		SSE	24	1014.3
8	Tu	15.1	20.6	0			S	65	13:47	18.5	87		W	31	1004.7	15.9	97		S	35	1003.0
9	We	12.7	17.9	1.0			S	59	00:37	14.2	65		ESE	22	1008.3	17.7	62		NNE	15	1009.1
10	Th	13.2	19.7	0			NE	57	17:48	15.8	65		SW	4	1009.7	18.1	61		S	15	1007.3
11	Fr	14.4	22.0	1.6			NE	46	23:52	19.3	79		W	20	1002.6	21.2	78		NNE	11	1004.6
12	Sa	16.0	20.3	0.2			WSW	41	03:54	17.0	82		NNE	15	1012.2	19.3	62		E	15	1014.1
13	Su	15.3	18.9	0			S	48	19:09	16.3	66		ESE	11	1015.6	16.8	64		S	24	1017.1
14	Mo	13.7	20.0	0			ESE	39	22:16	17.0	59		SE	15	1022.3	18.9	51		SSE	19	1021.9
15	Tu	12.5	21.1	0			E	41	00:08	17.7	70		NE	11	1017.8	20.8	64		E	20	1016.0
16	We	15.2	21.4	0			E	37	22:06	17.1	79		ESE	15	1016.2	20.4	70		ESE	17	1015.4
17	Th	16.1	30.5	0			WNW	48	18:23	20.9	62		ENE	11	1005.3	26.2	40		WSW	9	1001.7
18	Fr	17.3	20.7	0			WSW	43	08:04	17.4	91		NNW	22	1004.2	19.7	64		NE	17	1008.7
19	Sa	15.1	20.2	0.2			SW	41	06:44	16.5	62		S	19	1016.6	19.0	57		SSW	17	1017.8
20	Su	15.8	21.5	0			S	30	14:44	17.4	73		SSE	11	1017.7	20.8	60		S	19	1016.1
21	Mo	16.0	21.3	0			SSW	28	17:20	16.9	78		SE	13	1013.0	20.0	64		S	13	1011.6
22	Tu	15.0	21.2	0			W	43	11:24	19.1	76		WNW	19	1012.7	20.0	80		NNE	13	1013.9
23	We	15.3	20.4	0.2			E	48	21:18	16.8	72		SSE	28	1019.7	19.6	60		ESE	19	1019.3
24	Th	16.1	25.1	0			E	48	23:04	18.0	82		NE	28	1013.3	23.5	70		ESE	17	1008.7
25	Fr	14.8	19.1	1.8			W	80	03:57	16.0	78		ESE	24	1010.3	17.4	59		S	24	1015.2
26	Sa	15.0	20.4	0			S	35	21:50	16.8	57		SSE	20	1017.7	19.3	51		S	17	1016.8
27	Su	15.4	21.1	0			S	39	23:20	17.5	75		SSE	20	1014.9	19.0	63		S	13	1013.7
28	Mo	11.4	20.2	0			SSW	56	11:11	17.4	80		NW	13	1011.4	14.1	88		S	24	1013.7
29	Tu	13.7	19.7	1.2			SSW	44	04:46	15.3	59		SSW	28	1015.9	18.9	53		NE	9	1015.3
30	We	13.5	23.7	0			W	56	15:00	18.1	75		NW	28	1013.2	22.0	70		WNW	30	1012.4
31	Th	13.9	15.6	4.0			S	57	19:53	14.9	92		NNW	11	1011.0	13.4	94		S	31	1011.2
Statistics for January 2013																					
Mean		15.0	22.1							17.9	71			19	1013.5	19.9	64			19	1013.3
Lowest		11.4	15.6	0						14.2	28		SW	4	1002.6	13.4	35		#	9	1001.7
Highest		21.1	41.9	4.0			W	80		31.4	92		N	35	1025.4	28.0	97		S	35	1025.5
Total				10.2																	

IDCJDW3010.201301 Prepared at 16:02 UTC on Wednesday 7 August 2013

Source of data
Observations were drawn from Cape Nelson Lighthouse (station 090184).
You should read the **important information** in these notes.

Other formats
To **print** this page, get the PDF version (one page, 45 kb).
To use this page in a **spreadsheet**, get the plain text version (4 kb).

Other times and other places
The **last 14 months** of Daily Weather Observations for Cape Nelson, Victoria are also here on this web site:
Aug 13 Jul 13 Jun 13 May 13 Apr 13 Mar 13 Feb 13 Jan 13
Dec 12 Nov 12 Oct 12 Sep 12 Aug 12 Jul 12
Daily Weather Observations are also routinely prepared for hundreds of **other locations** in Victoria and across Australia. To get other months or places not on this web site, contact us.

Climate statistics
If you are after **long-term averages** relevant to Cape Nelson, Victoria, look at the tables for Cape Nelson Lighthouse Comparison.
Maps and tables of average conditions for locations across Australia are also available.

More information
If you are using these pages, you are deemed to have understood the **important information** in these notes. They cover how the data are obtained, how they are processed, and what each column means.
If you have **any questions** about this product, or you want any other weather or climate information, please contact us.

This page was created at **on**

APPENDIX B Interviewees

Region and District Personnel

Bob Barry	CFA Regional Director & Agency Commander
Hamish Webb	DEPI Program Fire Manager Brad
Mahoney	DEPI Regional Fire Manager
Gregg Paterson	CFA Regional Commander
Bruce Farquharson	CFA Operations Manager District 5
Gary Harker	CFA Operations Officer – Portland
Frank Ziegler	CFA Portland Brigade Lieutenant and past Glenelg Councillor

Incident Management Team Personnel

Bill Spiers	CFA Level 3 IC qualified. Level 3 IC
Peter Novotny	CFA Operations Manager District 4 Level 3 IC
Gary Mynes	CFA Level 3 Aircraft Officer
George O'Dwyer	DEPI Public Information Officer
Andrew Morrow	DEPI Level 3 IC qualified

Kentbruck Fire Debrief

Incident Emergency Management Team

APPENDIX C Kentbruck Fire Debrief

Friday 8th February 2013 – Dartmoor.

Attendance: CFA, DSE, SES, Glenelg Shire Council, SA CFS, DHS, AV, VicRoads.

Prepared by Peter Novotny CFA.

Kentbruck Fire Debrief

Incident Emergency Management Team

PART A: THINGS THAT WENT WELL

- Incident Emergency Management Team (iEMT) in place with Incident Controller. Considerable integrating and co-operation evident between all agencies.
- Medical Officer Liaison with Ambulance Victoria Commander worked well as both at the same location.
- Having various EMLO's (including VicPol) at single venue proved valuable, and resulted in an integration of actions and knowledge, and based on up to date incident situational awareness provided by incident controller and team.
- Single location provided for the ability for VicRoads and VicPol to interact well in relation to Traffic Management Points.
- Combined iEMT and Incident Management Team (IMT) meetings (especially in the morning) together with iEMT meetings were regular and scheduled and assisted all agencies in achieving their responsibilities.
- Beneficial for morning combined iEMT and IMT very useful in getting a good appreciation of the day ahead.
- Community meetings very useful for explaining situation to affected communities, including response, relief and recovery information. Use of maps was strongly supported.
- Communications across iEMT members within Incident Control Centre (ICC) was very good. People got on very well.
- Planning by VicPol organising possible South Australian (Mount Gambier) Relief Centre was well done.

PART B: THINGS THAT WOULD BE IMPROVED

- Opening of Winnap Rd – Nelson Rd. Traffic control contractors were utilised and were nearly at end of shift as opening was being planned. Important to allow all fire safety and traffic management considerations, audits and checks to be fully completed prior to road being re-opened and to involve all necessary agencies.
- Important to have full iEMT engagement and meetings from any early stages of the incident, including the build-up at the start of incident.
- Any contracted First Aid providers should be integrated into the Medical Unit under the Health Commander. They should not operate independently under the IMT Logistics unit.
- Evacuation Planning could be improved. An exercise should be conducted and involve: Health, Ambulance Victoria, LGA, VicPol, DHS. It was felt that improper requests for vulnerable persons lists may have been made. Discussion also occurred that a separate evacuation plan may have been prepared at IPOC in Warrnambool and did not have other agency input (particularly GSC and DHS). Need better understating of participants to be involved and triggers for establishing evacuation seems there is a difference in terminology between agencies. Eg Evacuations and evacuees.

  RECOMMENDED ACTION: VicPol and DHS were requested to convene exercise in order to ensure that all had a good working knowledge of planning procedures.
- Teleconference availability at iEMT meetings at ICC would be beneficial to enable agencies not able to attend to participate.
- Access to EMT minutes throughout the incident would be appreciated.
- There was considerable community value assigned to holding community meetings. The role of Information Points was also recognised, but it was thought the public did not understand the difference. GSC offered to assist in the conduct of community meetings if needed in the future. GSC felt that they were let out. Need to determine who coordinates and facilitates the meeting to the community.

  RECOMMENDED ACTION: CFA to arrange a meeting with DSE and GSC to discuss arrangements for the conduct of community meetings.
- Heavy Equipment. GSC is preparing a document on the actual GSC equipment it can provide in the future. GSC will no longer place private equipment on standby in the way it has for CFA in the past years.
- It was recommended by some agencies that there would be value in some future Fire Ready meetings to move into the “all hazards” format, and include participation by other agencies including GSC, SES, Ambulance Victoria and DHS.

- GSC advised they will write to the Emergency Services Commissioner (and also present at the Barwon South West Regional Management Forum) in relation to issues which the GSC experienced during the incident and improvements that it feels are needed.
- Specialist Equipment. SES has many logistics resources located within BSW which response agencies were not aware of and which could have been used during the incident. It is recommended that these be added to future resource manuals development annually by the fire agencies.

  RECOMMENDED ACTION: SES to send copies of their logistics resources to CFA and DSE to enable a all-hazards logistics and resources manual to be developed.

APPENDIX D

Kentbruck – Portland Nelson Rd Debrief, Dartmoor Rec Reserve 8/02/2013, 10:00-12:00.

Incident Name: Kentbruck – Portland Nelson Rd
Location: 18km South East of Nelson
Vic Gov Region: Barwon South West
District: Far South West
Fire No.: 15
Size: 12055 hectares

Debrief Chair: Max Coulter

Organisations attended:
DSE/PV
CFA (volunteers, staff and FIB's)
SES
DPI
CFS

Attendance list attached.

What Went Well?

- Plant effectiveness – especially on the Southern edge of the fire.
- Pre-planning/Readiness/Taskforces (started planning on the Monday, pre positioned Central Support Task Force a good example of the outcome of discussions between Region and District in the readiness process).
- IMT and Ground Staff stepping up to cover night shift the 1st night (Some staff had worked that day and fatigue may have affected the performance of some?).
- Aircraft Officer worked well in the cramped conditions. (AO working in the Operations room).
- AAS actually got what he wanted in the way of aircraft on day 1 Good support from state in prepositioning aircraft and in response requests to SAD).
- Cross border resource request was prompt and timely.
- The ability to increase resources capability including on ground, IMT, Aircraft, machinery over the week as the fire ramped up.
- No loss of life or major structure. AGREE
- Stopping the fire where we did (fire potential spread - High). AGREE
- The ability to use local knowledge in roles such as, Sector commanders, Divisional Commanders and embedding locals into incoming Task Forces.
- The availability of the SES crews as ground support Also in Information roles across BSW.
- The use of local knowledge.
- Full EMT in place at the Heywood ICC worked well (EMT also involved in readiness phase).
- Early deployment of the MORF (Mobile Offroad Radio Facility) trailer.

Issues and Action Plan

Category	Debrief - Issue/Concern/Comment	Issue Responsibility Local Region State CFA DSE Joint	Consequence Severe Major Moderate Minor Insignificant	Likelihood Almost certain Likely Possible Unlikely Rare	Risk rating Extreme High Medium Low	Mitigation Strategy	Action Officer	Date due	Comments
Other	Plant Operators External – used for first attack, some operators had very little experience.	State	Severe	Likely	Extreme	State Level training & Accreditation for External Plant Operators	SAC's	Aug 30, 2013	
Other	Public Info – the need for a public map on the web for the public to view. Can see the benefit in making maps available for campaign fires	State	Severe	Almost Certain	Extreme	Inclusion of Maps of all fires on a web interface for community viewing	SAC's	Aug 30, 2013	
Other	Initial turnout – slow to activate the CFA via vicfire (fire initially detected from Fire Tower).	Local	Severe	Possible	Extreme	Look at processes to improve CFA Dispatch. Brigades should self dispatch to a known local incident rather than awaiting a pager message. Reinforce the	OM	Aug 30, 2013	
Operations	Briefings not happening or late.	Local	Severe	Possible	Extreme	importance of briefings. Onus on all firefighters the importance of giving and receiving briefings prior to deployment.	DM & OM	Aug 30, 2013	
Operations	Improve Division command standards. Start of fire after TOC. IC & OO did not appoint a field commander and did not advise fireground. This resulted in a disconnect with diff agencies working in diff sectors. Large amount of CFA resources confined to small sector and could have assisted with fire in pine sector. During fire on ISP, list of Div comms were on swing shift and arrived later than most others. ST Leaders had to step up to Division commander.	Local	Severe	Likely	Extreme	Identify divisional commanders in the readiness phase. They are appointed and assume command early with clear communication of command structure to the fireground. On subsequent days at fire an appointed divisional. commander must be in place on the fireground. Divisional commanders must ensure briefings are occurring and logistical arrangements are being met.	DM & OM	Aug 30, 2013	Learnings from the Kentbruck fire have been implemented on a number of subsequent readiness days and incidents (i.e Cashmore - Oakleys Road Fire)

Operations	Reinforce the wearing of PPE on the fire ground for all organisations.	Local	Severe	Possible	Extreme	Reinforce the wearing of PPE on the fire ground for all organisations in pre season briefings.	WC & OM	Aug 30, 2013	
Deployment (Shift/Tours	Initial resources request for readiness and night shift, not filled.(including key positions ie aircraft)	Region	Major	Likely	High	To follow up state request with phone call. Region to review priorities	RAC'S	Aug 30, 2013	
Deployment (Shift/Tours	Deployment lengths not consistent/unreliable.	State	Moderate	Likely	High	Require consistent framework for resourcing	SAC's	Aug 30, 2013	
Deployment (Shift/Tours	Differing information given from different units, confusing RCC in filling resource requests.	Local/Region	Major	Likely	High	RCC should only be taking resource requests from Resources in IMT. & Each Agency should have a resources officer in place for Readiness & Response	RAC's	Aug 30, 2013	
Deployment (Shift/Tours	Staggered start times → created issues such as briefing incoming crews when night crews going off line, chasing what time sector commanders started when crews were already on line.	Local	Major	Likely	High	Consistent start/Finish times. Time allocated for handover briefings and travel.	RACs	Aug 30, 2013	RACs to put on agenda for ICs
Other	External plant not carrying plant log book/time sheets. Plant operators need to have there book signed after shift.	Local	Moderate	Almost Certain	High	Need to reinforce Plant Panel Requirements with Contractors	FM	Aug 30, 2013	
Other	Security Issues – Supply staff not making contact with front desk before entering the yard. E.g. strangers coming into the depot with food and drinks.	Local	Moderate	Likely	High	Gates installed at Heywood		Aug 30, 2013	
Other	TMP's set-up at Drik Drik Community was told they would not be let back in the area if leaving the TMP to attend the community meeting at Dartmoor. This has been identified as a problem at State level and may be a factor influencing some people in their decision to stay when they would otherwise leave.	State	Major	Possible	High	Local Vicpol have armbands that can be issued. Armbands provided to local residents to allow access only at after it is deemed. Where necessary briefings for residents within TMP zone be held	State EMT	Aug 30, 2013	
IMT – IAP's/ISP's/ Deployment Orders	Maps out of sync/touch with what was happening on the ground, e.g. lacking detail such as plantations.	Local & State	Major	Possible	High	Local staff trained to produce a level of quality map. Also some Emap layers may not be up to date and are limited in there detail	Local = OM & FM, State = FISG	Aug 30, 2013	
IMT – IAP's/ISP's/ Deployment Orders	Overview map only included in the ISP, ISP needs detailed Sector maps as well.	Local	Major	Possible	High	Local staff trained to produce a level of quality map. Also some Emap layers may not be up to date and are limited in there detail	RAC's	Aug 30, 2013	
IMT – IAP's/ISP's/ Deployment Orders	Airbase – daily briefings were very poor, by day 3 were very good.	Local	Major	Possible	High	Aircraft Officers to ensure Airbase Managers follow SMEACS format	FM & OM	Aug 30, 2013	
IMT – IAP's/ISP's/ Deployment Orders	Area maps for incoming Task forces crews not from the area. TOPO maps with clear road and track names.	Local	Major	Possible	High	Locality maps to be provided to TF/ST's heading to fire	DM	Aug 30, 2013	
IMT – Function	Poor information flow between IMT sections – e.g. Operations and Logistics.	Region	Major	Possible	High	Exercising, Training, Accreditations + experience. Reinforce the scheduling of IMT Meetings and functional Team meeting	RAC	Aug 30, 2013	
IMT – Function	PTA web address (EM Web Mail) needs to be permanently allocated for the Plantation Technical advisor, not just given the EM Web Mail Spare.	Region	Moderate	Likely	High	Allocate PTA an EMWebmail address	RAC	Aug 30, 2013	
Logistics	No fuel available at the staging area.	Local	Major	Possible	High	Ensure bulk fuel tankers are available at staging area	DM	Aug 30, 2013	
Logistics	Food for incoming & out coming crews not available not organised after several days. Expecting crews to go out of their way to eat at the Heywood Base camp.	Local	Moderate	Likely	High	Use of multiple Logistics Points around the fire as single points were ineffective	DM	Aug 30, 2013	At times bills have indicated that 1300 meals were being made for approx 700 firefighters

Facilities	Toilets on line for the ladies.	Local	Minor	Almost Certain	High	Organised toilets for extended attack fires. Consider nearby staging area or use of portable toilets	DM & OM	Aug 30, 2013
Facilities	Could have toilets set-up on line at the Op's point.	Local	Minor	Almost Certain	High	Organised toilets for extended attack fires. Consider nearby staging area or use of portable toilets	DM & OM	Aug 30, 2013
Operations	IMT, Operations not listening to fire ground commanders. IMT ops were not listening to CFA fireground commanders mainly sector commanders who could not get in contact with	Local	Major	Possible	High	Reinforce and using the operational chain of command		Aug 30, 2013
Staging	their divisional commanders Level 3 fires should have	State	Severe	Unlikely	High	Support the provision of appropriate level of medical service		Aug 30, 2013
Communications	Compatibility for all services, other agencies communications (SES – trunking – VHF CFA/DSE capability).	State	Moderate	Likely	High	One communication plan for the state. Statewide emergency communication plan		Aug 30, 2013
Communications ions	Black spots located through out the Kentbruck area.	Local	Moderate	Likely	High	Notify all personnel of communications channels in the comms plan. When required deploy MORF		Aug 30, 2013
Deployment (Shift/Tours	Late notice for IMT replacements.	Local/Region	Minor	Possible	Medium	?		
Deployment (Shift/Tours	On again, off again SA deployment.	State	Minor	Possible	Medium	Should be done at a Local Level as a part of SBFCA	RAC'S	Aug 30, 2013
Deployment (Shift/Tours	Request for Casterton Group Strike Team → the last minute, happened 3 times. Strike Team members became reluctant to there time, they felt they mucked around.	Local	Moderate	Possible	Medium	Shore up resource requirements before submitting requests		
Deployment (Shift/Tours	CFA crews did not work late enough on Friday night (confusion or lack of communication regarding strategies on Fridays deployment and so people went home).	Local	Minor	Likely	Medium	Nil		
Deployment (Shift/Tours	Shift Changes – Late notice!	Local	Minor	Likely	Medium	Shore up resource requirements before submitting requests	OM & FM	
Other	Heywood ICC set-up – Incident controller and public Info disconnected. Have noticed this during This can also be an to step out of the noise in the ICC.	Local	Moderate	Possible	Medium	Install a radio console in the Public Info room. Be proactive in sourcing information, build relationships with Planning & Operations. IC to ensure this occurs	DSE - OM	
IMT – Function	Little to no cross border information for the first 3	Local	Moderate	Possible	Medium	CFS representative to be encouraged to attend Heywood ICC	DM & OM	
IMT – Function	Strategic Planning Unit – not enough information about it, doubling up, confusion.	State	Moderate	Possible	Medium	Strategic Planning should be a consideration of the Planning Unit in place, not a separate function or Unit. What should a strategic planning unit be doing? Guidelines?		
Logistics	Fuel and Bug mix for the fire ground needed to be more readily available.	Local	Moderate	Possible	Medium	Operations to request well in advance of running low and forecast required need.		
Logistics	Out of date ration packs.	Local	Minor	Unlikely	Medium	New Ration Packs are delivered toe each brigade before fire season. Captain are to ensure they are stored in the truck	CFA Captains	
Operations	Allocation of roles on – mentoring opportunities	Local	Minor	Possible	Medium	Continue to pursue mentoring opportunities	DM & OM	
Operations	Use of indirect rather then direct attack in the pines, extreme caution must be when allowing crews to enter pines.	Local	Major	Unlikely	Medium	Strategies will vary depending on situation and fire behaviour. Factors to consider include firefighter safety and liklelihood of Success	DM & OM	
Operations	No Trust in CFA/FIB and their experience (No example or explanation given).CFA/FIB personnel thought they were "talked down" to.	Local	Moderate	Possible	Medium	Continue to reinforce that all firefighters are trained and accredited for the positions they hold.	DM & OM	
Operations	Use of names rather then was used on the fire line for radio, e.g. Joe Blogs was used rather than the Heath Sector Commander. This is example of the difference in CFA / DSE Radio protocol	State	Moderate	Possible	Medium	State to determine a consistent radio protocol	SAC	

Operations	Volunteers reluctant to commit if they do not see improvements on the ground	Local	Moderate	Possible	Medium	Continue to demonstrate mutual respect and continuous improvement	DM & OM	
Operations	(No example or explanation given).	Local	Minor	Possible	Medium	Machinery was used where required and safe to do so.	DM & OM DM & OM	Increased risk in using plant at night in forest areas
Operations	Heavy machinery not utilised at night to strengthen control Lines.Use FIB/CFA as offsiders or sectors.	Local	Minor	Possible	Medium	Continue to encourage FIB's to participate in incident management		FIB's were used when available
Operations	No command point for incoming resources at the of the fire.	Local	Minor	Possible	Medium	Ensure Div Comms are familiar with need for an operations point	DM & OM	
Operations	Incoming CFA crews not aware that Vic Fire 37 does not work West of the look	Local	Minor	Possible	Medium	Incident Comms plan needs to be adhered to.	OM	
Staging	Staging area needs to be set up as the one stop shop – briefings, food, water, fuel, shift Plans etc.	Local	Moderate	Possible	Medium	When a staging area is to be used it needs to be supported. Improve Staging area capacity for the 13/14 season	DM & OM	
Staging	Toilets were locked at the rooms.	Local	Minor	Possible	Medium	Identfiy appropriate contact	FM & OM	
Staging	No support for staging area personnel.	Local	Moderate	Possible	Medium	When a staging area is to be used it needs to be supported. Improve Staging area capacity for the 13/14 season	DM & OM	
Communications	Incomplete trunk details in	Local	Moderate	Possible	Medium	Brief incoming crews and ensure ISP's are correct		
Communications	Interstate resources unsure local Comms Plan.	Local	Moderate	Possible	Medium	Brief incoming crews		
Communications	Portland Airbase lacking trunking radios.	Local	Moderate	Possible	Medium	Portland has one trunk radio allocated		
Communications	Lack of experience in the use of radios, GTFP FIB.	Local	Minor	Unlikely	Medium	Training to be arranged with FIB's	OM	
Communications	Poor coverage of mobile phones, lack of access to trunking with GTFP FIB.	Local	Minor	Unlikely	Medium	GTFP to be advised trunking not required on fireground.	OM	
Communications	Congested radio traffic.	Local	Moderate	Possible	Medium	Reinforce radio discipline. Consider radio check system. Use command and fireground channels effectively	FM & OM	
Communications	DSE Op's vehicles all need dual fit radios and a hands mobile kit for sector/div roles. Systems would jam up we already have radio discipline problems.	Local	Moderate	Rare	Medium	Ensure staff undertaking roles as Sector Comms or Div Comms are using vehicles fitted with Dual Fit.	DM	
Incident Strategies	Limited input from plantation owners to strategy at the	Local	Minor	Unlikely	Medium	PTA has a seat in the IMT and does contribute to Planning as a Technical Specialist		Incident Controllers call and Firefighter safety is paramount
Other	Community briefings, public wanted more operational info such as strategies and tactic.	Local	Insignificant	Unlikely	Low	Provide as much detail as possible at meetings. i.e ISP's	PIU	
IMT – Function	Understanding of other agencies such as, capability, AIIMS functions, staging rapid impact (engage SES the IMT not just the EMT).	Region	Minor	Unlikely	Low	Encourage ongoing involvement of SES in support roles	RAC	
IMT – Function	PTA would like a seat in Planning, in this type of incident where plantation assets are significant.	Local	Minor	Unlikely	Low	PTA has a seat in the IMT and does contribute to Planning as a Technical Specialist	DM	
Operations	Lack of local knowledge → risk, e.g. BWC (Water cart) sent down Kentbruck Rd to cross Little Moleside Creek and then got stuck.	Local	Minor	Rare	Low	Ensure local knowledge is utilised on the fire ground	DM & OM	Local knowledge was utilised on the fire
Other	Aircraft Officer operating conditions in the Heywood ICC, small. The operations room in general gets very noisy.	Local	Minor	N/A	N/A	Nil		
Other	SA aircraft not deployed in attack even though close to the incident during initial attack.	Local	N/A	N/A	N/A	Arrangements are in place. SA also had a high fire danger day		
Other	Investigate how the fire and put in preventative measures.	N/A	N/A	N/A	N/A	Investigators from CFA & Vicpol attended		Was investigated
Other	DSE staff wants more opportunities to gain experience on plant so that they can be used during emergency incidences. Gain experience through burn	Local	N/A	N/A	N/A			
Other	Not enough lighting at the Dartmoor staging area for mechanics.	Local	N/A	N/A	N/A	Lighting is available if requested. (i.e . Through SES)	Logistics Officer Incident	
IMT – Function	AIIMS Structure not always followed. (No example provided)		N/A	N/A	N/A			Unable to progress without details

Incident Strategies	Delay in the Portland Airbase being setup and ready, need more accredited staff, upgrade the Portland facilities; TFB Trigger should have had the airbase ready.	Local	N/A	N/A	N/A	CFA plan on training additional local resources to support airbase operations in 2013/14	FM/OM	Casterton Airbase was set up for day as District Primary Airbase. Portland is a secondary.
Incident Strategies	Default use of indirect attack rather than direct attack in pines – asset loss greater then necessary and potentially more risk. Delay in changing strategy on the fire ground.	Local	N/A	N/A	N/A			Divisional Commanders call and fire fighter safety is paramount
IMT – Function	Not enough seats in the Heywood ICC.							
Logistics	Cold Steak, no cold water, no drinks with meals	Local	Moderate	Possible				
Operations	External Plant timesheets not being signed at the end of shift.							
Deployment (Shift/Tours)	Vic Fire → Adelaide Fire, clarity of request & information	State	?	?	?			

ATTACHMENT 1 Letter of Authority

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01 FEB 2013

Our ref: CD/13/35118

Mr Alan Goodwin
Chief Fire Officer
Department of Sustainability and Environment
8 Nicholson Street
East Melbourne Victoria 8002

Dear Mr ~~Goodwin~~ Alan

REVIEW INTO THE KENTBRUCK FIRE

I would like to inform you that I am intending to conduct a review into the Kentbruck fire that started on the 4 January 2013 at 1433 hours.

The purpose of the review is to highlight good practice and identify opportunities for improvement that emerged during the extended fire fighting operations.

The review will be conducted in consideration of the recently published Interim Incident Management Standards (issued on the 15 October 2012) contained within Section 6 of the document titled "Requirements".

In particular, the review will focus on;

Operational Framework, Structures and Functions

- The Incident Management structure at the local level, the performance of and information flow of the Incident Management Team and its interaction with fire crews deployed to support the management of and suppress the fire.
- The effectiveness of the information flow between the local Incident Management Team and the Regional Control Team.

Preplanning and pre formed teams

- The preplanning and its effectiveness that occurred in regards to information sharing of the fire risks across agencies including agency pre-plans, the level of understanding among all agencies of the regional and district resourcing capability and joint agency Incident Management Team training that was conducted in preparation for the 2012/13 fire season.

Objectives Risk Assessment and Strategies

- The effectiveness of the Incident Management Strategy and supporting Action Plans with particular importance placed on the thresholds used to adjust the overall approach within the changing incident conditions and context.
- The connection between the use of aircraft and the overarching Incident Management Strategy.
- The relationship between the Incident Management Strategy and the strategy for managing community consequences that emerged during this fire.

WORKING IN CONJUNCTION WITH CFA MFB Victoria Department of Sustainability and Environment

Coordination, Information Flow and Community Information

- The Warnings and Advice provided to the community ensuring it was timely, tailored and relevant and used a range of media in disseminating warnings, advice and community information.
- The measures enacted to recognise the effectiveness of the Warnings and Advice Strategy

Debriefing and Lessons Learnt

- Identify the mechanisms put in place to identify and share the lessons learnt from the Kentbruck fire at a local, regional and State level.

I have engaged Mr.Ian Symons former CFA Executive Officer to conduct the review into the Kentbruck fire and request you make available a person who can provide Ian with the necessary assistance for him to complete this review and access relevant individuals who will be able to contribute and add to the learning this incident offers.

I look forward to your support in the conduct of this review.

Yours sincerely

Craig Lapsley PSM
Fire Services Commissioner, Victoria