

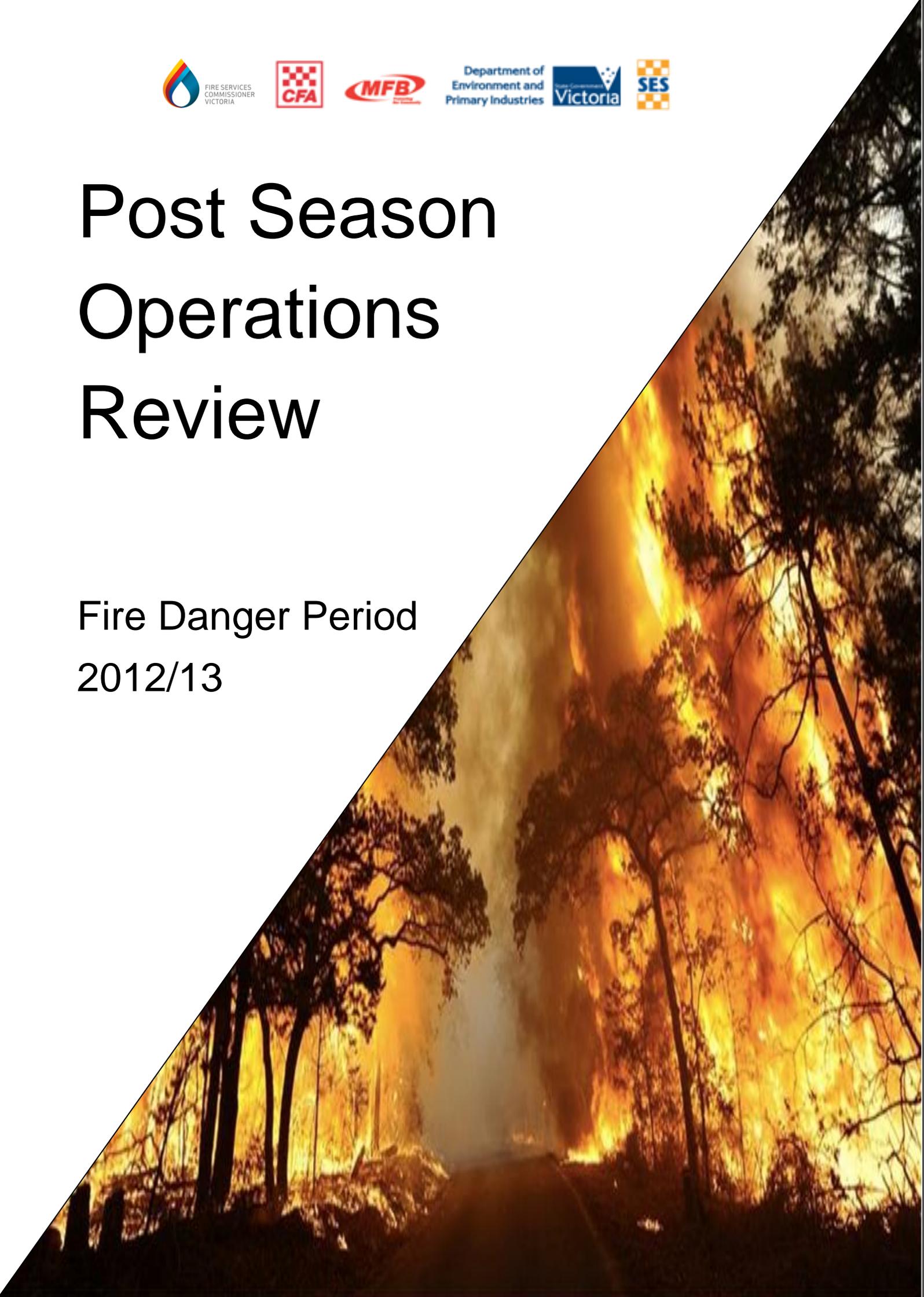


Department of
Environment and
Primary Industries



Post Season Operations Review

Fire Danger Period
2012/13



Acknowledgements

The multiagency review coordination group representing the Fire Services Commissioner, CFA, Department of Environment and Primary Industries, Metropolitan Fire Brigade and Victoria State Emergency Service wish to acknowledge our people and our emergency management partners for participating in the operational review of the 2012/13 fire danger period. Your willingness to provide observations, feedback and insights are critical to our continuous improvement as fire agencies and as the emergency management sector for the benefit of all Victorians.

The multiagency review coordination group wish to acknowledge the invaluable assistance of the Office of the Emergency Service Commissioner for the analysis of the Joint Operations, Incident Management and Safety Survey results which form a component of this report.

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Contents

Contents	1
Executive Summary	2
Introduction.....	21
Season Overview	22
Review Methodology	25
Principles for the conduct of the review	25
Review Themes	26
BRCIM Evidence.....	28
Summary of feedback	29
Predictive Services and Products	29
Integrated Initial Attack.....	31
Transfer of Control	33
Bushfire Safety Policy, particularly Warnings and Advice.....	34
Evacuation	37
Incident Management Team Readiness	39
Traffic Management Points	41
Interoperability.....	43
Back-burning Approval.....	46
Other key observations and findings.....	46
Joint Operations, Incident Management & Safety Survey.....	53
Survey Overview	53
Survey Composition	53
Respondent Roles.....	55
Pre-Season Information	56
Joint Operations	58
Incident Management Teams.....	59
Warnings and Advice	62
Information Flow.....	63
Briefings	65
Local Knowledge.....	67
Communications Plans	69
IMT and Field Shift Changeovers.....	71
Staging Area and Resource Tracking	75
Management of Non-Agency Resources	77
Safety	79
Survey Observations and Findings	85
Review Team Learnings.....	86
Learnings Identified.....	86
Continuous Improvement Actions	86
Participation.....	87

Executive Summary

Victoria experienced a significant fire season in 2012/13 Fire Danger Period (FDP); in part due to above average temperatures, dry fuel loads and increased potential for fire activity. While predicted to be an “average” season, it was obvious by November that grass and bush across Victoria were at risk of fire. This changed in January 2013 with heatwave type conditions resulting in the whole of the state experiencing very dry conditions and all grass and bushland ready for fires to be intense.

These conditions resulted in fires which were intense, fast moving, and ran through the night. Total Fire Bans were declared in all or parts of the state on 16 days between 1 December 2012 and 31 March 2013. Initial attack was a key factor to success and included the extensive use of firefighting aircraft to support ground crews who performed exceptionally well. Firefighters from the Department of Environment and Primary Industries (DEPI) (formerly the Department of Sustainability and Environment), CFA and Metropolitan Fire Brigade (MFB) responded to more than 4,400 bush and grass fires between December and March. Of these 24 were classified as significant including those at Chepstowe, Aberfeldy, Harrierville, Donnybrook, Dereel and in the Grampians.

As in previous years an operational review was completed, the primary purpose of which, was to identify and validate existing operational policy, processes and practices applied during this period and identify opportunities for continuous improvement associated specifically with the management of bushfire. Review activities took on an additional role to simply gathering observations from the season for use by fire agencies as part of our continuous improvement activities. While still focusing on prevention, response and recovery issues, in particular the pre-season briefing themes, the collection of observations relating to the efficacy of actions initiated following the VBRC was identified as critical to inform the evidence provided to the Bushfire Royal Commission Implementation Monitor (BRCIM).

The following ten key themes were identified for review:

- Predictive Services and Products
- Integrated Initial Attack
- Transfer of Control
- Bushfire Safety Policy, particularly Warnings and Advice
- Evacuation
- Incident Team Readiness
- Traffic Management Points
- Interoperability
- Back burning Approval
- Other key observations and findings

A range of debriefing and survey activities designed to capture observations from our people operating at every level of fire, and the input of our emergency management partners were utilised and coordinated by a multiagency review group representing the Fire Services Commissioner, CFA, DEPI, MFB and VICSES. Those issues outlined in this report are an aggregated picture of key issues. Many others identified at local and Regional level are the subject of continuous improvement at these levels.

The information collected through this review process supports other evidence that significant improvements in a range of key areas associated with the management of bushfire have been and continue to be made in Victoria.

In addition to a summary of each of the key themes within the body of this report, 46 key common issues were identified from observations and these issues and continuous improvement actions are detailed in the following pages.

This review has also identified a number of opportunities for further improvement and in most cases activities have commenced to address these issues ahead of the 2013/14 FDP through targeted projects, briefings or exercises. Those not specifically addressed have been analysed and assigned to responsible parties for future consideration to build on the knowledge gained through the review process.

This review has been a collaborative activity involving the Victorian fire services and our emergency management partners and it is appropriate to recognise everyone in these agencies involved in coordinating and participating in the review as the information gained through this activity is critical to our ongoing improvement for the benefit of the Victorian community.

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
1 Predictive Services and products	1.1	Timeliness, accessibility, quality and reliability	Improvement noted at Incident, Regional and State levels, particularly support provided from Bureau of Meteorology (BoM) and Fire Behaviour Analysts (FBANs).	Noted positive feedback. Predictive Services steering committee established and commencing further refinement and improvement to predictive products.	Capability
	1.2	Application of Phoenix modelling within the Metropolitan Fire District (MFD)	Phoenix modelling not available within the MFD. Phoenix has limited application in MFD except in the isolated areas of grass and scrub. There is no automated generation of prediction mapping when a fire occurs and therefore requires manual generation.	This requirement will be evaluated for application in future upgrades to the existing system by the Predictive Services steering committee.	Systems
	1.3	Provision and distribution of predictive products	Weather intelligence better than previous years, with information provided quickly and generally well distributed at briefings. More training and understanding of the tools needed. Increase the access and availability throughout agencies. More FBANs should be trained to increase pool.	Predictive services steering committee established and commencing further refinement and improvement to predictive products including reviewing state-wide FBAN capability and training.	Capacity
	1.4	Planning and Situation officer Training	Refresher courses for planning and situation officers to bring them up to date with developments in predictive tools and technology.	Referred to the MACC Working Group for consideration in future training activities.	Capability
	1.5	Input of local knowledge	Greater local knowledge required to provide a “reality check” to modelling re weather and fire behaviour.	The incorporation of local knowledge in IMTs is specified in SOP J2.04 and the critical role local knowledge and validation of conditions plays in enhancing predictive products is reinforced in the Fire Agency Handbook and will be address in the Pre-season Update for 2013/14.	Systems

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
	1.6	IMT use of Phoenix	<p>IMT ability to alter predictions and create own predictive maps.</p> <p>Refinement of modelling as currently based on worst case</p>	<p>If the IMT has an FBAN then it is possible to do this. If not, the IMT can contact the SCC FBAN and provide information to amend the modelling and map produced. Business Rules being developed relating to access of SCC FBANs when no FBANs are at incident level.</p> <p>Reinforce existing arrangements at Local, Regional and State levels.</p>	Systems
	1.7	Phoenix modelling dissemination	<p>Predictive modelling need to identify applicable Region and emails targeted to the appropriate Region. Amount of emails at times (Phoenix predictions) overwhelming which could lead to missed emails.</p>	<p>Predictive services steering committee established and commencing further refinement and improvement to predictive products. Work underway via the SCC to refine email outputs. Phoenix is already integrated into EMap. Business Rules being developed relating to access of SCC FBANs when no FBANs are at incident level.</p>	Systems
	1.8	Strategy development	<p>Modelling having too much emphasis on strategy development.</p>	<p>Reinforce in pre-season briefings modelling is one factor in decision making regarding the development of strategies and tactics.</p>	Risk
	1.9	Consequence and impact identification	<p>Further development of the roles capacity and management at State and regional levels requires clearer understanding.</p>	<p>Issues identified from 2012/13 will continue to be addressed through ongoing actions associated with the Joint Doctrine project and future implementation of AIIMS 4 prior to the 2013/14 FDP.</p>	Capability
	1.10	Air Intelligence	<p>Use of Air observers to provide quick mapping and emailed photos back to ICC was valuable. Intel gathering platform very beneficial during initial attack.</p>	<p>Pre-season Briefings (2013/14) for air crews will reinforce the immense value of this intelligence gathering and sharing with IMTs to inform the development of predictive services products.</p>	Capacity
	1.11	Portable Automatic Weather	<p>Activation procedure and processes requires clarification and wider dissemination, some found it</p>	<p>CFA, DEPI and BoM are reviewing the requirements and processes of requesting and deploying PAWS</p>	Systems

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
		Stations (PAWS)	confusing and lengthy.	units prior to 2013/14 FDP.	
	1.12	Fire Danger Indices	Instances where FDIs were thought to be underestimated leading to some regions making readiness arrangements based on worse than forecast conditions	The current project reviewing SOP J2.03 prior to the 2013/14 FDP incorporates actions to address this issue.	Risk
	1.13	Interpretation and application	Further training on the application and of weather and fire behaviour products for all agencies.	Fire Weather Training Course is available and remains a key program to develop our people interpreting and applying weather products.	Capability
	1.14	TFB/FDR/FDI notifications	Non fire agencies operations (staffing/customer services/etc) impacted by timing of notifications.	Notification procedures and processes via the SCC being streamlined to improve timeliness. Continue to monitor this through 2013/14 FDP. Reinforced through REMT the expected timelines for notifications.	Systems
2 Integrated Initial Attack	2.1	Application	Few issues identified at the regional level. Common objective and strategy identified as key success factor in addition to familiarity of personnel, integrated local knowledge, respect for capability and roles through briefings, exercises and previous incidents.	The application of Command & Control and in particular Transfer of Control is agreed between fire agencies in Victoria. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.	Capability
	2.2	Inhibitors	<p>Communications prior to and during incidents, including the application/use of early integrated communications plans. Individual personnel knowledge and experience, local relationships between agency personnel.</p> <p>Differing agency doctrine on where the initial IC is located. Differing initial firefighting strategies (direct v indirect)</p>	<p>The application of Command & Control and in particular Transfer of Control is agreed between fire agencies in Victoria. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.</p> <p>The enhancement of local relationships and</p>	Capacity

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
				understanding of each agencies capacity, capabilities, knowledge and tactics remains the responsibility if State, Regional and local agency people to develop and enhance.	
3 Transfer of Control	3.1	Embedding Transfer of Control	<p>Understanding of the principles and process continues to improve through briefings, exercises and practical application.</p> <p>Recognising the cues to transfer control, timeliness of transfer, clear communication of key incident issues, and the shadowing of incidents by ICCs before Transfer of Control contributed to effectiveness.</p>	The application of Command & Control and in particular Transfer of Control is agreed between fire agencies in Victoria. Updating and clarification of Command and Control Arrangements for Bushfire underway to be completed prior to 2013/14. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.	Capacity
	3.2	Challenges to Transfer of Control	<p>Transfer of Control on lower fire risk days when no ICC in place. Transfer of control at rapidly developing grassfires. Improving communication between fireground, ICCs and agency C & C personnel.</p> <p>Understanding and adoption of the Div Comm role and responsibilities post Transfer of Control. Suitability of initial fireground IC to perform Div Com role following Transfer of Control.</p> <p>More guidance and understanding on the principles, triggers and process identified in addition to the continued maintenance of Transfer of Control as a priority area for improvement.</p>	<p>The application of Command & Control and in particular Transfer of Control is agreed between fire agencies in Victoria. Updating and clarification of Command and Control Arrangements for Bushfire underway to be completed prior to 2013/14. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.</p> <p>Transfer of Control triggers, principles, etc is documented in the Fire Agency Handbook.</p>	Capability

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
4 Warnings & Advice	4.1	Timeliness and relevance	<p>Overall seen as more readily available and included better information with templates, tools and standard terminology assisting with timeliness and content.</p> <p>Access to local knowledge was also identified as a strength as was the timely and quality support provided by the OSOM and EA helpdesks.</p> <p>Warnings and advice provided a trigger for non fire agencies and enhanced overall situational awareness.</p>	<p>This issue received considerable positive feedback from Public Information Section personnel; nonetheless further provisions are being made within Warnings and Advice templates (OSOM) for local information and a standardisation of multi-agency terminology.</p> <p>Warnings and Capability Working Group development and implementation of an agreed multi-hazard monitoring and evaluation framework for Public Information</p>	Systems
	4.2	Location of Warnings and Advice and Public Information Officers	<p>Greater understanding throughout IMTs this season of the role of Warnings and Advice and Public Information Officers, including the benefit of a Warnings and Advice officers in every IMT.</p> <p>Use and clarity required of Warnings and Advice officers at district and subsequent transfer of responsibilities and function to ICCs.</p>	<p>This again received positive feedback from Public Information personnel, however there remains a need to ensure adequate Public Information personnel are available in key locations based on risk. This is also being reviewed as a component of the JSOP2.03 review project.</p> <p>IAP template being updated to include Public Information requirements prior to 2013/14 FDP.</p>	Capacity
	4.3	Urban interface	<p>Tailoring of messages identified for urban interface fires.</p>	<p>New OSOM Warnings and Advice templates are designed to cater more effectively for urban interface incidents and the required messaging to these communities. An interface Project has commenced to address this.</p> <p>See also 4.4 and 4.5 below</p>	Communications
	4.4	Warning and	<p>OSOM system identified as slow and difficult to use by some operators, Some of the templates were thought to</p>	<p>A number of useability enhancements are currently being incorporated into OSOM and will be</p>	Systems

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
		advice systems	be 'clunky'. Improved tracking of warnings also identified	<p>implemented prior to the 2013/14 FDP.</p> <p>Warnings and Capability Working Group development of revised templates for warnings, including amalgamation of the 17 "Warnings" to 10. New template wording will take account of differing situations e.g. taking shelter, leaving, upgrades, updates, downgrades campaigns and are also tailored to prompt local or relevant information to be included.</p>	
	4.5	Terminology and content in Warnings and advice	<p>Some terminology used in Warnings and Advice messages not understood by community with further work required to ensure community understanding of message instructions.</p> <p>Importance of clear content highlighted. Further work required to strengthen the messaging in languages other than English.</p> <p>Volume of messages needs attention particularly where messages where being updated to fix grammatical or spelling errors.</p> <p>Protocols for approval of message changes, pre drafted messages, usability of the templates and tools identified as requiring examination. The ability to add more detail, the insertion of maps and further options for the choice of incident status also identified.</p>	<p>Warnings and Advice messages are continually evolving and modified based on both community and agency feedback. A particular emphasis in community testing is specific fire terminology. Warnings and Capability Working Group to develop agreed multi-hazard processes for SCC Warnings Unit monitoring and support of ICC/RCC Warnings staff before 2013/14 FDP.</p> <p>Enhanced OSOM Templates will encourage the extension of local and incident specific information. New templates will also be translated into other languages ensuring our Culturally and linguistically diverse communities receive this information in a more suitable and relevant manner.</p> <p>Warnings and Capability Working Group development of revised templates including;</p> <ul style="list-style-type: none"> • Change 'expiry time' to 'next update' and move to the end of the message; • Restructure messaging within the incident 	Communications

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
				<p>information to better reflect the needs of communities. e.g. names of the towns to be impacted, the critical message for each warning and the major road closures to the top of the message;</p> <ul style="list-style-type: none"> • Ability to refine the information in the 'What to do' based on needs of those to be impacted; • Rewording and removal of messaging that was not relevant to those in immediate danger. <p>Aligned with the ongoing development of VINE consideration of integration of mapping capabilities into OSOM to create the ability for a map to be produced as part of the warning output.</p>	
	4.6	Broadcasters	Some reported instances of out of date messages being provided by broadcasters. Suggested need to avoid repetition of 'What to do' when broadcasting messages for multiple fires.	An Emergency Broadcaster "audio friendly" version of the Warnings and Advice templates is currently being developed. Combined with regular briefings and training provided to these broadcasters this will overcome this issue.	Communications
	4.7	Roles and responsibilities of personnel	Clarity required on the role, responsibilities and functions of Public Information functional areas at each tier of management.	<p>Training, exercising and briefings provided before the 2013/14 will incorporate the critical function the Public Information Section provides in incident management.</p> <p>Warnings and Capability Working Group to develop agreed multi-hazard processes for SCC Warnings Unit monitoring and support of ICC/RCC Warnings staff before 2013/14 FDP.</p>	Capability

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
5 Evacuation	5.1	Understanding and application	<p>Understanding of the concept, application and collaborative approach required is still limited in some areas of the state, and awareness needs to be increased through further exercising and agency engagement processes.</p> <p>Evacuation managers in ICCs worked well and provided greater awareness. Wider involvement of REMT members was required when conducting evacuation exercises.</p> <p>Enhanced information flow to partner agencies was identified as an area for improvement, particularly early advice of "incidents of interest" from the RCT to Department of Health/Human Services.</p> <p>Further work regarding when an evacuation process is applied, compared with what some would term a "relocation/temporary relocation".</p>	Principles of evacuation will continue to be reinforced for the 2013/14 FDP through briefings, exercises and scenarios. Evacuation will again be addressed in the Preseason Update and guidance in provided in the Fire Agencies Handbook.	Capability
	5.2	Community response	<p>Community members "self-evacuating" to a location where they would normally go, however that location was not identified as a Relief Centre or a Neighbourhood Safer Place.</p> <p>Communities were occasionally advised of relief centres that were open in their area, which would have required members of the public to drive towards/through the fire area or that were a long way away.</p>	<p>Community options relating to evacuation are a component of Community Information Guides developed for high risk areas throughout Victoria.</p> <p>The requirement of information relating to evacuation is specified in the SOP J3.12 in particular preferred routes of travel to places of shelter.</p>	Communications

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
6 Incident Management Team Readiness	6.1	Application of SOP J2.03	<p>Strong commitment and application of the JSOP requirements in terms of readiness.</p> <p>While challenges were reported in sourcing personnel at various times it was supported that all Regions had generally succeeded in achieving the requirements of the JSOP throughout the FDP.</p> <p>Multiagency teams worked together very effectively in particular those that work within the same teams, with the same people regularly.</p> <p>Teamwork, knowledge sharing and an improved understanding of each agencies systems were further positives.</p>	SOP J2.03 is the subject of a comprehensive project to review and implement improvements prior to the 2013/14 FDP. The issues identified here and others have been provided to the project team to inform outcomes. Completion planned for 30 August 2013.	Capability
	6.2	Sustainability of SOP J2.03	JSOP is not sustainable in its present form, specifically in relation to the number of personnel required when a number of ICCs are regularly required to be ready based on the predicted weather. Many felt that there were not sufficient people to resource IMTs for a prolonged period	SOP J2.03 is the subject of a comprehensive project to review and implement improvements prior to the 2013/14 FDP. The issues identified here and others have been provided to the project team to inform outcomes. Completion planned for 30 August 2013.	Capacity
7 Traffic Management Points	7.1	Management of Traffic Management Points	<p>Victoria Police were recognised as providing excellent and timely support, communication and collaborated effectively with IMTs in decisions associated with where and when to establish TMPs.</p> <p>The use of CFA Member Identification cards and not the sole reliance on vehicle stickers was observed as a positive from field personnel.</p>	Traffic Management Point information is included in the Fire Agency Handbook and will be incorporated into the scenarios used as part of pre season briefing activities ahead of the 2013/14 FDP.	Systems

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
	7.2	Operation of Traffic Management Points	<p>A number of key issues identified -</p> <ul style="list-style-type: none"> • Community understanding of TMPs; • Access through TMPs for people who lived in the affected area; • People leaving their property to attend community meetings only to find they could not return to their homes through a TMP; • Confusion around the continued applicability of some vehicle stickers and the movement of agency personnel who were not in an agency vehicle; Some CFA personnel not carrying their identification cards resulting in issues passing through TMPs; • Access to temporary passes at some locations; Inconsistency in the application of TMP guidelines and access; • Maintenance of TMPs after the passage of an incident. • 	<p>Victoria Police have completed review of the Guidelines for the operation of Traffic Management points with an updated version to be published by October 2013. Observations from the review will be referred to Victoria Police for consideration as part of this process.</p>	Communications
8 Interoperability	8.1	Systems	<p>Improvements in accessibility to other agencies systems and the wider use of EM Webmail, the shared "R drive" and eMap has helped ensure all levels are operating from a common platform.</p> <p>Where interoperability issues have been identified they were negated by stronger established relationships between agencies at all levels through briefings, workshops and exercises.</p> <p>Conflicting incident details often apparent between IMS and Fireweb.</p>	<p>Significant progress has been made and continues towards common systems for incident management, information sharing and resource management.</p> <p>While independent systems exist it remains a key responsibility of agencies at State, Regional and local levels to ensure that information is consistent.</p>	Systems

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
	8.2	Information Flow	<p>The format that documents were provided in occasionally created issues when agencies did not have specific IT programs to open them.</p> <p>The inconsistent and adhoc storage of documents on the shared "R drive" was highlighted as potentially leading to information sharing difficulties.</p> <p>The timely sharing of information, knowledge and skills, increased understanding of other agencies capabilities and resources and the increased trust between agencies was identified as having improved this season.</p> <p>Communication within agencies and partners, particularly at incident and Regional emergency management level, is solid. Communications between ICCs, RCCs and the SCC better than previous years. There was good use of systems for information sharing and advice.</p> <p>Potential for information overload if not managed strategically.</p> <p>Some examples of agency based information sharing being inadequate, requiring reinforcing of procedures and the importance of situational information flow, including briefings at the beginning of shifts.</p>	<p>FSC office is developing standards and business rules relating to file structure, storage and use of common format types to continue to improve information sharing in the IT environment.</p> <p>Relationship enhancement and development at local, Regional and State level remains a key component to effective information flow and sharing.</p> <p>Development underway to streamline and simplify use of existing emergency management systems comprising three securely accessible web based sites. These sites will incorporate simplified sign on and will provide:</p> <ol style="list-style-type: none"> 1. Improved operational awareness with key information in one place -Emergency Management Dashboard (EMD) will bring information from a number of existing systems into one place to give better operational awareness, including incident lists, mapping, warnings and briefings. This dashboard is being developed through the DEPI Bushfire ICT project and will have views at the state level for the SCC and at each of the regional levels for RCCs. 2. Links to emergency management applications - Emergency Management Portal (EMP) brings together a collection of quick links to applications, tailored for each functional unit. It also includes quick links to common regularly updated information such as Contacts, Current Activation Level, Duty Rosters, Daily 	Systems

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
				<p>Schedules, Reports and Briefings.</p> <p>3. Authoritative document reference library - Emergency Management Knowledge (EMK) brings together all common reference information into a single library with an integral authoring and publishing process. This includes Functional Role Descriptions, SOPs, Policies, Work Instructions, Guidance Notes, Product Catalogue, Safety Fact Sheets and information on ICT Systems such as eMap, EMwebmail, IMS and R-Drive. Much of this information exists as multiple copies in various sub folders of the R-drive and the SCC Extranet. EMK provides an authoritative and easily accessible source for this information.</p>	
	8.3	Resources - Personnel	<p>Greater clarity of roles, responsibilities and understanding of capabilities was acknowledged this season as a reason for agencies working well together.</p> <p>Some Regions described a culture shift to a more integrated and collaborative approach, with good interagency relationships contributing.</p> <p>The increasing involvement of MFB in within ICCs and RCCs received positive feedback noting however that there are a number MFB staff who have been trained in IMT roles but underutilised.</p>	<p>Updated and new role descriptions for all positions at state, regional and incident level developed by 2013/14 FDP.</p> <p>Continue to utilise personnel from all fire and partner agencies (where appropriate) in IMT and EMT roles for which they have been trained.</p>	Capability
	8.4	Resource management	Highlighted at all levels as requiring attention.	Further improvements in the knowledge of agency personnel about the existence and operation of the State Resource request System will be addressed	Systems

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
			<p>The State Resource Request System was showing promise for a new system but it was noted that it still required business rules to be developed and more extensive training in its use.</p> <p>Confusion surrounding strategic resource management when deploying resources to other Regions and a lack of understanding about resources available within a Region and required by requesting Regions.</p>	<p>through individual section and unit training and briefings and incorporation into scenarios and exercises conducted prior to the 2013/14 FDP.</p>	
9 Backburning Approval	9.1	Compliance	<p>Where back burning was conducted as part of incident management, the details were included in Incident Action Plans approved by the Incident Controller.</p> <p>Instances were noted where Division and Sector Commanders engaged Strike Team Leaders in discussing the safety of conducting back burns and that approvals were more timely.</p> <p>Regional debriefing suggested that the process was working</p>	<p>This issue was well addressed through adherence by fire agency personnel to the required approvals to be sought for backburning.</p> <p>Shift plans, as a component of the IAP, remain the key documentation outlining backburning approval by the Incident Controller where this is identified as an appropriate control strategy.</p>	Risk

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
10 Command and Control Arrangements for Bushfire	10.1	Functions and Roles	<p>Identified need to ensure consistency in the functions at Incident, Region and State levels, expectations of the Regional Control Team, resourcing models, application of line of control and understanding of when line of control is in place for which incidents.</p> <p>Some concerns identified that State level questioned operational decisions being made at Regional and Incident level. It was also felt that the State level should have more of a strategic focus.</p> <p>Need for a state position addressing the elements that contribute to incident and emergency management capability, to address sustainability of resourcing, common training and exercising frameworks and common readiness processes.</p> <p>Changing doctrine “on the run” throughout the season was generally not well received. uncertainty about the roles and responsibilities of emergency response coordinators and non-fire agency commanders in the Regional Control Team</p>	<p>Issues identified from 2012/13 will continue to be addressed through ongoing actions associated with the Joint Doctrine project and future implementation of AIIMS 4 prior to the 2013/14 FDP.</p> <p>Updated and new role descriptions for all positions at state, regional and incident level developed by 2013/14 FDP.</p>	Capability

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
11 Personnel Welfare	11.1	Fatigue management	<p>Management of Fatigue required increased attention due to extent of fire season.</p> <p>Instances where DEPI fatigue management guidelines and industrial arrangements pushed out shift changeovers and required multiple or delayed briefings at shift commencement.</p>	<p>Fatigue management will be addressed as a key safety issue in the Preseason briefings and information prior to the 2013/14 FDP. It remains a responsibility of agency personnel at State, Regional and local levels to ensure effective compliance with specific agency fatigue policies and procedures.</p> <p>CFA is currently developing an agency wide Fatigue Management Policy for introduction, no later than the 2014/15 FDP</p> <p>DEPI will reinforce the correct application of the existing Fatigue Management guideline prior to the 2013/14 FDP.</p> <p>Review of SCC OHS advisor role underway.</p>	Capacity
12 Aircraft	12.1	Use	<p>Aircraft usage this year was as good if not better than previous years. Aircraft were regularly employed as part of aggressive initial attack and readiness planning for high FDI days was improved.</p> <p>Positive feedback regarding the pre-determined dispatch trial (of a Helitak) in CFA District 2 this season.</p> <p>The use of aircraft for information gathering and mapping was demonstrated and well received in the field, further work needs to be undertaken to ensure there is a structured approach to implementation and integration with all air and ground based information</p>	<p>Aviation workshop held with recommendations to the Aviation Board considering predetermined dispatch expansion, Aerial intelligence gathering and 2013/14 aviation fleet configuration.</p> <p>A comprehensive report has been completed into the Predetermined Dispatch of Aircraft during the 2012/13 FDP. This will inform and assist in the continuous improvement of aircraft management in the future.</p> <p>The State Aircraft Unit is responsible for implementing a range of initiatives, as is the case after each FDP, aimed at continuous improvement in the overall</p>	Capability

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
			gathering systems and processes. Effectiveness of this information gathering inhibited as the analysis and no longer in the Planning and Situation Officer curriculum.	management of aircraft resources throughout the state. Aircraft Briefings will be consolidated into the Regional Briefings commencing with the 2013/14 FDP.	
	12.2	Planning, Protocols and Procedures	<p>Protocols and guidance on the relocation of aircraft including the factors to be considered, regional support arrangements required including personnel and expectations regarding backfilling.</p> <p>Awareness is also needed on the efficient and effective use of aircraft, and an appreciation of them as a finite and costly resource. The involvement of Regional Controllers in the decision making associated with strategic relocation of aircraft based on risk, progressively got better during the season and there was improved knowledge of aircraft at the Regional level.</p> <p>Cross border aircraft arrangements, particularly availability and activation, were thought to be poorly understood as were the interstate liaison guidelines</p> <p>.</p>	<p>The State Aircraft Unit is responsible for implementing a range of initiatives, as is the case after each FDP, aimed at continuous improvement in the overall management of aircraft resources throughout the state.</p> <p>Aircraft Briefings will be consolidated into the Regional Briefings commencing with the 2013/14 FDP.</p>	Capacity
	12.3	Roles	State-wide capacity, availability and rostering of personnel in aviation roles (both airborne and ground support) was raised	The State Aircraft Unit is responsible for implementing a range of initiatives, as is the case after each FDP, aimed at continuous improvement in the overall management of aircraft resources throughout the state.	Capacity

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
				<p>Aviation rostering responsibilities being clarified, including State Air desk, AAS Support for Type 1 Aircraft and Regional rostering.</p> <p>Personnel management continues to evolve and improve through the input provided by field and aircraft personnel.</p> <p>Aircraft Briefings will be consolidated into the Regional Briefings commencing with the 2013/14 FDP.</p>	
13 EMTs	13.1	Operation and understanding	<p>Significant achievements that have been made in the past few years in terms of engagement, communications, collaborations and focus the key responsibilities of these teams.</p> <p>Identified opportunities to improve the focus and operation of EMTs, in particular the application of clear responsibilities at each levels, recording and monitoring of actions and decisions through effective meeting practices and an increased understanding of what each agency brings to the team in terms of knowledge and capability.</p>	<p>The operation and understanding of the roles and responsibilities of EMTs at incident, regional and state levels has improved significantly in the past few years.</p> <p>A review of the EMT Practice Note by the FSC and it's subsequent release prior to the 2013/14 FDP will address many of the existing uncertainties relating to other continuous improvement actions and initiative identified during 2013/14. Specifically the key focus of each IMT level, administrative expectations and general operations of these teams.</p> <p>EMT Practice Note 2009 revised and renamed EMT Arrangements 2013 following review by Multi Agency Working Group and Agency/Stakeholder input. Submitted to State Emergency Response Planning Committee for endorsement on 31 July 2013. Subject to endorsement - publication, distribution and electronic information presentation to be prepared.</p>	Capability

Theme	Item	Issue	Comment	Action	Continuous Improvement Category
14 Interstate Deployment	14.1	Planning and Operation	Lack of documented protocols and planning documents detailing processes and procedures for interstate multi agency deployments.	A review of the interstate deployments during the 2013/14 FDP clearly identified the successes of using people from all agencies (including MFB and SES). A key observation related to a need for consistent policy and protocols developed ahead of any future deployment. Deployment Working Group has been established to develop and document single interstate and international deployment procedures and processes.	Systems
15 General	15.1	Pre-season Briefings	Inclusion of local issues within the preseason briefings.	Opportunity for the inclusion of a an overview of local activity during the previous FDP and key local issues for the coming FDP is incorporated (if desired by local agency management) into briefing presentations at all agency levels.	Risk
	15.2	Land holder liability	Documentation is required to provide coverage for an organisation using private property, or private landholder indemnity from damages or injury, when a decision is made to set up a staging area or base camp during an incident on private property.	Should this be directed to the legal groups of agencies or the joint State Logistics working group??	Risk
	15.3	Activity and Event awareness	Multi agency to capture, share and bring awareness to known community activities and events across Regions.	While no specific all agency activity database currently exists, some agencies currently maintain a comprehensive events list and ways for other agencies to complement this process will be developed. The State Control Centre also references the Events Calendar on the Victoria Online website.	Systems

Introduction

This report documents the observations, feedback and insights provided by the Victorian Fire Agencies, our emergency management partners and key stakeholders gathered through an operational review process undertaken following the 2012/13 Fire Danger Period (FDP).

The primary purpose of this review is to identify and validate existing operational policy, processes and practices applied during this period and identify opportunities for continuous improvement associated specifically with the management of bushfire. Ten key themes were identified for review.

Face to face debriefing and surveys were primarily used to collect this information from fire agencies and our emergency management partners involved throughout the FDP. In addition, a number of other specific projects and reviews have further informed the information in this report.

A number of the ten themes focused on during the review were the basis of new initiatives, informed by pre-season briefings, scenarios and exercises in the lead up to the 2012/13 FDP. Consequently their understanding and application, while recognising may take some time to consolidate, were reviewed to determine the current status of these improved practices.

The high level of operational readiness and response activities experienced throughout this FDP has presented, in some cases, the first real opportunity to test many new initiatives introduced after the Victorian Bushfire Royal Commission (VBRC).

The information collected through this review process supports other evidence that significant improvements in a range of key areas associated with the management of bushfire have been and continue to be made in Victoria.

This review has also identified a number of opportunities for further improvement and in most cases activities have commenced to address these issues ahead of the 2013/14 FDP through targeted projects, briefings or exercises. Those issues outlined in this report are an aggregated picture of key issues. Many others identified at local and Regional level are the subject of continuous improvement at these levels. Those not specifically addressed have been analysed and assigned to responsible parties for future consideration to build on the knowledge gained through the review process.

This review has been a collaborative activity involving the Victorian fire services and our emergency management partners and it is appropriate to recognise everyone in these agencies involved in coordinating and participating in the review as the information gained through this activity is critical to our ongoing improvement for the benefit of the Victorian community.

Season Overview

Victoria experienced a significant fire season in 2012/13; in part due to above average temperatures, dry fuel loads and increased potential for fire activity. While predicted to be an “average” season, it was obvious by November that grass and bush across Victoria were at risk of fire. This changed in January 2013 with heatwave type conditions resulting in the whole of the state experiencing very dry conditions and all grass and bushland ready for fires to be intense.

These conditions resulted in fires which were intense, fast moving, and ran through the night. Total Fire Bans were declared in all or parts of the state on 16 days between 1 December 2012 and 31 March 2013. Initial attack was a key factor to success and included the extensive use of firefighting aircraft to support ground crews who performed exceptionally well. Firefighters from the Department of Environment and Primary Industries (DEPI) (formerly the Department of Sustainability and Environment), and Metropolitan Fire Brigade (MFB) responded to more than 4,400 bush and grass fires between December and March. Of these 24 were classified as significant including those at Chepstowe, Aberfeldy, Harrietteville, Donnybrook, Dereel and in the Grampians. A summary of these fires is listed and spatially shown in the following pages.

Tragically, this season bought home how dangerous the fire ground can be with a community member and four firefighters losing their lives in the line of duty. Between December and mid-March more than 190,000 hectares of public and private land was burnt and 46 houses destroyed.

For weeks, large campaign fires tested not just the fire services but also the rural communities they were threatening. Specialist forest firefighters from New Zealand and New South Wales provided assistance to local firefighters with the fires at Harrietteville, Aberfeldy and the Grampians. These firefighters assisted with managing deep seated forest fires and their contribution was greatly appreciated.

The Kal Kallo - Donnybrook fire placed significant pressure on the peri-urban growth areas north of Epping and showed the risk of fire in outer metropolitan Melbourne is real and significant. The fire also highlighted the different and varied needs within this community, which is something fire agencies and our emergency management partners will work to address ahead of the next fire season.

Issuing timely and relevant warnings and information was a key focus of this fire season. Incident Controllers issued 1756 Advice Messages, 349 Watch and Act Warnings and 123 Emergency Warnings over the fire season beginning in December 2012. Telephone alerting was used 61 times during this time. Of interest was the use of telephone alerting to target hikers on Mt Feathertop during the Harrietteville fire which proved effective. It was also used during the night and early morning to warn the Seaton and Heyfield communities. During January the Bushfire Information Line received more than 18,000 calls – more than the annual total of any of the three preceding summers.

Unfortunately, a large number of fires that volunteer and career firefighters worked so hard to contain appear to have been deliberately lit. Lightning also contributed significantly to fire causation, with at least 13 of the 24 significant fires believed to have been started this way.

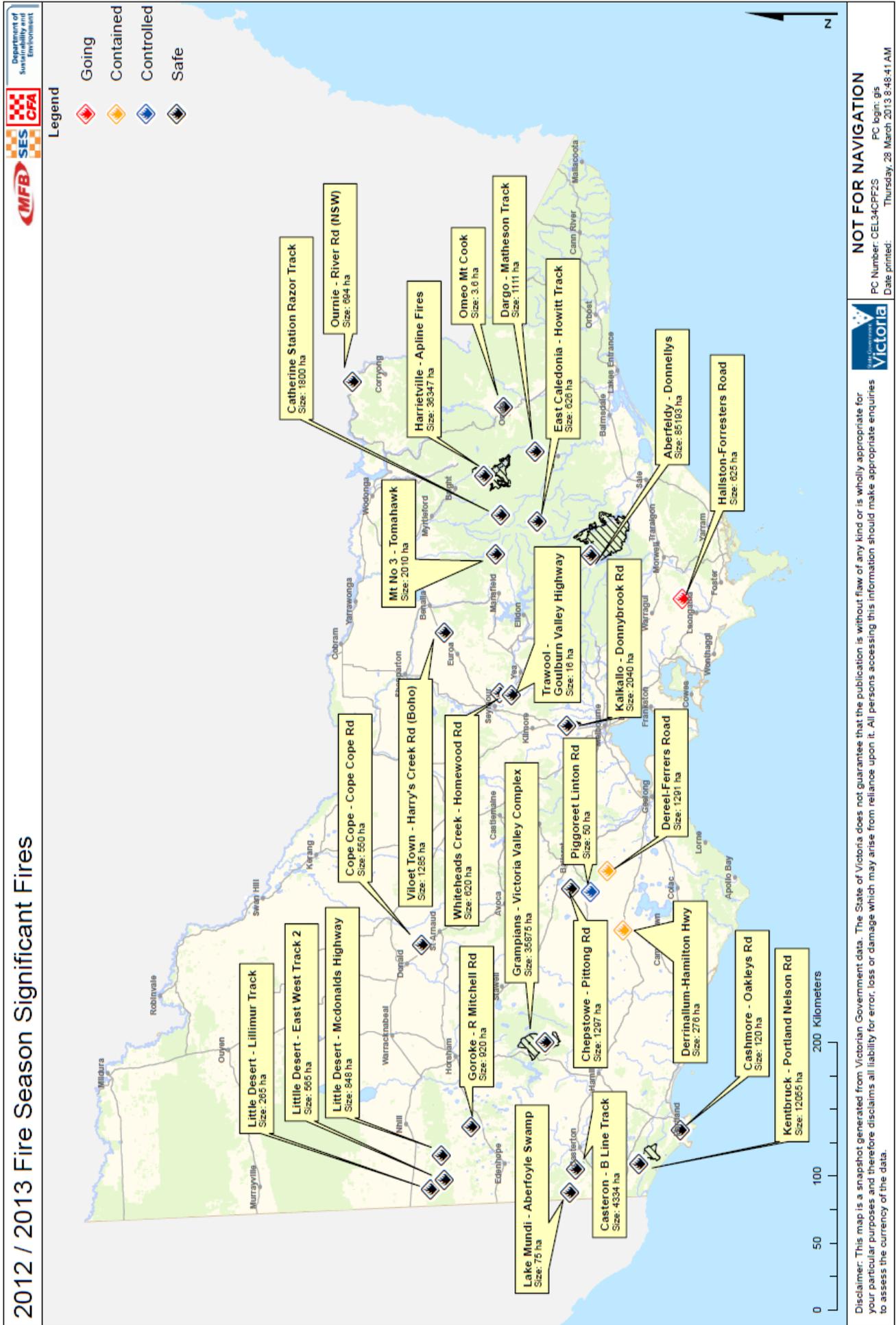
Victoria was called on to support our interstate counterparts in January when both Tasmania and New South Wales experienced significant fires. Over 250 Victorians from CFA, DEPI, MFB, and Victoria State Emergency Service (VICSES) provided support to our interstate colleagues.

Table 2 - Summary of Significant Bush and Grassfires for 2012/13

	December 2012	January 2013	February 2013	March 2014	Totals
Significant bushfires	2	6	9	7	24

Name	Region	Start	End	Duration	Size (Ha)
Little Desert – Lillimur Track	Grampians	20 Nov 12	21 Nov 12	1 day	265
Casterton-B Line Track	Barwon SW	20 Nov 12	23 Nov 12	3 days	4334
Whiteheads Creek - Homewood Rd	Hume	8 Dec 12	12 Dec 12	4 days	620
Cope Cope - Cope Cope Rd	Grampians	27 Dec 12	28 Dec 12	1 day	550
Kentbruck – Portland Nelson Rd	Barwon SW	4 Jan 13	11 Jan 13	8 days	12055
Chepstowe – Pittong Rd	Grampians	8 Jan 13	9 Jan 13	1 day	1297
Goroke – R Mitchell Rd	Wimmera	8 Jan 13	11 Jan 13	4 days	920
Aberfeldy – Donnellys	Gippsland	17 Jan 13	28 Feb 13	43 days	86840
Harrietville – Alpine Fires	Hume	21 Jan 13	27 Feb 13	39 days	22000 (Nth) 14347 (Sth) = 36347
Violet Town – Harry’s Creek Rd (Boho)	Hume	21 Jan 13	30 Jan 13	9 days	1285
Ournie - River Road (Ournie NSW)	Hume (in NSW)	5 Feb 13	6 Feb 13	1 day	694
Grampians – Victoria Valley Complex	Barwon SW	14 Feb 13	27 Feb 13	13 days	35875
Little Desert - McDonalds Highway	Grampians	14 Feb 13	17 Feb 13	3 days	848
Little Desert - East West Track 2	Grampians	14 Feb 13	17 Feb 13	3 days	565
Dargo – Matheson Track	Gippsland	15 Feb 13	25 Feb 13	10 days	1111
Catherine Station Razor Track	Hume	15 Feb 13	24 Feb 13	9 days	1800
Mt No 3 – Tomahawk	Hume	16 Feb 13	28 Feb 13	12 days	2010
Kalkallo - Donnybrook Rd	Nth + West Metro	18 Feb 13	19 Feb 13	1 day	2040
East Caledonia-Howitt Track	Gippsland	22 Feb 13	28 Feb 13	6 days	626
Cashmore – Oakleys Rd	Barwon SW	12 Mar 13	13 Mar 13	1 day	120
Lake Mundi – Aberfoyle Swamp	Barwon SW	2 Mar 13	3 Mar 13	1 day	75
Trawool – Goulburn Valley Highway	Hume	6 Mar 13	11 Mar 13	6 days	16
Hallston - Forresters Road	Gippsland	26 Mar 13	29 Mar 13	4 days	562
Piggoreet - Linton Road	Grampians	27 Mar 13	27 Mar 13	1 day	50
Dereel – Ferrers Road	Barwon SW	27 Mar 13	29 Mar 13	3 days	1200
Derrinallum – Hamilton Hwy	Barwon SW	27 Mar 13	30 Mar 13	4 days	275

Figure 1 – Significant Fires – Fire Season 2012/13

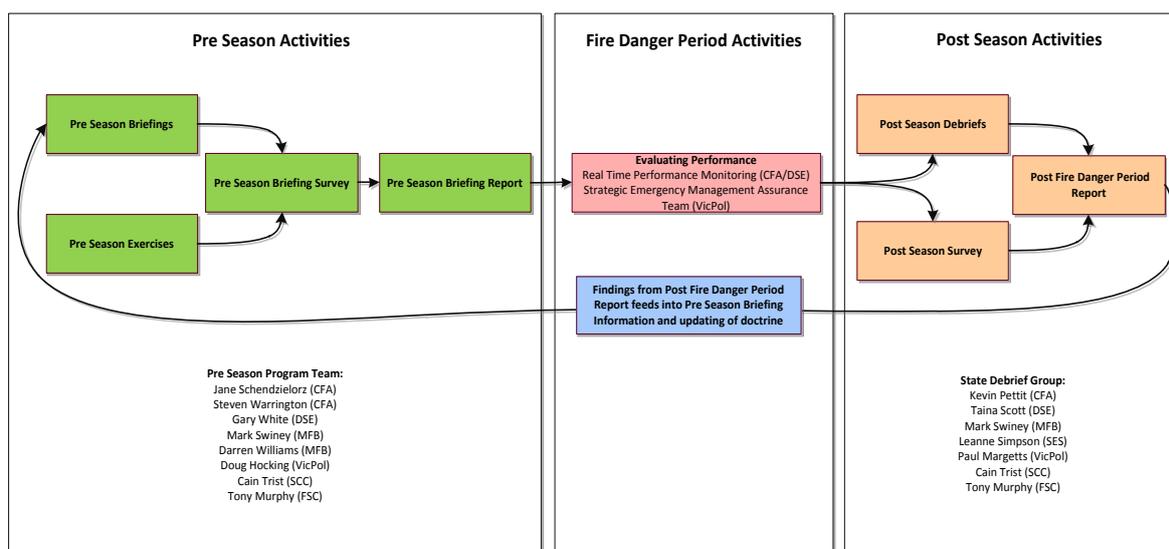


Review Methodology

The increased level of operational activity during the 2012/13 FDP presented, in some cases, the first real test of arrangements initiated after the VBRC. Review activities took on an additional role to simply gathering observations from the season for use by fire agencies as part of our continuous improvement activities. While still focusing on prevention, response and recovery issues, in particular the pre-season themes, the collection of observations relating to the efficacy of actions initiated following the VBRC was identified as critical to inform the evidence provided to the Bushfire Royal Commission Implementation Monitor (BRCIM).

As in previous years the review was designed to capture observations from our people operating at every level of fire, encouraging the input of our emergency management partners, with information contributing to the information management loop depicted in Figure 2.

Figure 2 – Information Management Loop

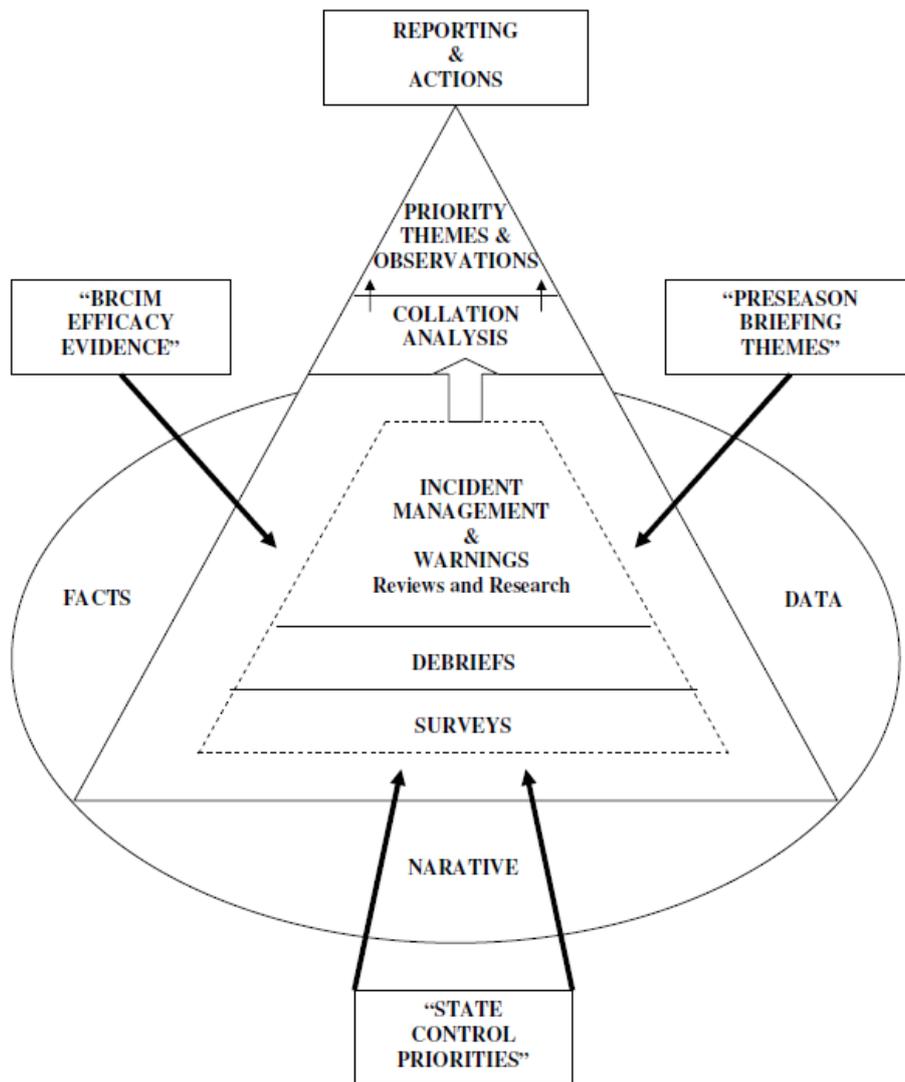


Principles for the conduct of the review

- The review was conducted with a “no blame” approach that focused on systems of work and addressing opportunities for improvement;
- The review was conducted across the State and involved the State Control Team (SCT), State Emergency Management Team (SEMT), Regional Control Teams (RCT), Regional Emergency Management Teams (REMT), Regional Controllers, Incident Controllers, Agency Duty Officers and other relevant personnel;
- A tiered debriefing process commencing at Brigade/work centre/station/unit level feeding upwards to state level was applied. Regions were requested to establish a coordinated process to ensure that personnel at all levels were encouraged to provide input;
- An online survey focussing on Operations, Incident Management and Safety was made available to enhance the collection of key observations;
- The review has focused on systemic issues and not on internal agency issues although these may be captured during the process and addressed by individual agencies;
- Evidence applicable to initiative implementation post the VBRC collected through this process has contributed to the information provided to the BRCIM; and
- The review is aimed to improve performance and is forward looking.

The review is a key component of the 2012/13 FDP Information Gathering process depicted in Figure 3.

Figure 3 – 2012/13 FDP information Gathering Process



Review Themes

Ten key themes were provided as a basis for review throughout the state. Each included statements to assist in focusing on the specific elements for consideration.

Predictive Services and Products

“Predictive models and mapping of fire risk tools were utilised effectively”

“Predictive services and products were easily accessible”

Integrated Initial Attack

“First responding crews had a clear understanding of the procedures and operational priorities when they arrived on scene and during initial attack on the fire.”

“During initial attack activities, crews from various agencies worked together in an integrated way.”

Transfer of Control

“The concept of Division Command was clear”

“The transfer of control from the fireground to an Incident Control Centre (ICC) was achieved effectively? *(If this was not practically applied is this concept clearly understood?)*”

Bushfire Safety Policy, particularly Warnings and Advice

“Warnings and advice to the community were provided in a timely manner, with tailored and relevant information during incidents.”

“The various methods and tools including, social media, One Source One Message (OSOM), Emergency Alert (EA), community meetings, Victorian Bushfire Information Line (VBIL) etc., were utilised to disseminate warnings and advice.”

Evacuation

“Arrangements for evacuation (procedures, triggers and processes) during bushfire were well understood.”

Incident Team Readiness

“Incident Management Teams (IMT) were resourced and in place in accordance with Joint Standard Operating Procedure (JSOP) 2.03 Incident Management Teams”.

Traffic Management Points

“The passage of CFA Volunteers through Traffic Management Points (TMPs) has improved since the adoption of a single identification system”.

“The operation of TMPs effectively and efficiently managed access to fire affected areas by emergency agencies, the public and other key support organisations”.

Interoperability

“The progressive standardisation of operating systems and information and communications technologies since 2009 is achieving greater efficiency and interoperability between fire agencies. Examples of where this is benefiting/limiting operations are.....”

Back burning Approval

“In accordance with VBRC Recommendation 25 – The Incident Controller approved back-burns prior to them being lit”.

Other key observations and findings

BRCIM Evidence

The BRCIM is tasked with the responsibility of monitoring and reporting on the achievements towards meeting recommendations of the VBRC. With the increased level of operational activity this year, the BRCIM Mr Neil Comrie AO, APM sought specific information from the fires services to demonstrate efficacy of the implementation of key recommendations.

The key focus related to the following VBRC Recommendations:

- Bushfire Safety Policy, particularly warnings and advice
- Evacuation
- Incident Management Team Readiness
- Appointment of Incident Controllers
- Traffic Management Points
- Interoperability
- Backburning approval

A submission of physical evidence which included information from fire agencies and our emergency management partners in addition to key observations collected throughout the FDP was provided to the BRCIM in late May 2013.

This evidence included extensive details and documentation relating to:

- Warnings and Advice – details of messaging numbers and types provided to the community, Public Information Officers endorsements and training, and Automated Fire Danger Rating signs;
- Aircraft fleet – Aviation Management Guidance, fleet composition for the FDP, readiness arrangements, operations, accredited personnel and a report relating to the Aerial Intelligence Gathering (AIG) Trial, including example outputs;
- Interoperability – State Bushfire Readiness Arrangements, examples of Regional Readiness Plans, Regional Risk and Consequence plans, Hume/Gippsland Alpine Fire Control Strategy and Initial Attack Instructions to Regions;
- Backburning Approval – examples of Incident Shift Plans where backburning operations were planned and approved by the relevant Incident Controller;
- State Control Centre – details relating to the refurbishment of the SCC prior to the FDP, the appointment of Assistant (Deputy) State Controllers and the instruments of delegation, key role rostering, SCC Concept of Operations – Fire and examples of mapping produced depicting Potential Consequence from fire starts produced by the Intelligence and Mapping Sections using Phoenix Fire Prediction and the Victorian Fire Risk Register;
- IMT Readiness – including the existing SOP J2.03 - Incident Management Teams – Readiness Arrangements, Business Rules to support SOP J2.03, Project Plan for the review of the JSOP, examples of ICC Readiness Reports, State Readiness Capability information, instructions for ICC Readiness Arrangements and Incident Controller Planning and the list of endorsed Regional and Incident Controllers;
- Other information included details of Total Fire Bans and Fire Danger Ratings during the FDP.

This review report is also a component of the information provided to the BRCIM.

Summary of feedback

The following summarises feedback against the ten key review themes was developed from fire agency debriefing activities conducted throughout the state and responses to The Joint Operations, Incident Management and Safety Survey.

Predictive Services and Products

“Predictive models and mapping of fire risk tools were utilised effectively”

“Predictive services and products were easily accessible”

There was generally favourable feedback on the weather and predictive products and services available to Incident, Regional and State Management Teams. The timeliness, accessibility, quality and reliability of the products and systems were appreciated, in particular the support provided by the Bureau of Meteorology (BOM) specialist and Fire Behaviour Analysts (FBANs) located at both regional locations and in the State Control Centre (SCC). The MFB debrief noted some difficulty in accessing the FBANs in the SCC from the MFB Emergency Control Centre or a control point, and that Phoenix did not work in the Metropolitan Fire District.

The weather intelligence was generally thought to be better than previous seasons, with information provided quickly to IMTs and generally distributed well at briefings. Consistently, personnel requested more training and understanding of the tools and greater access and availability throughout the agencies, to support confidence building. They also requested that more FBANs be trained in the agencies so the reliance on the current pool of people can be reduced, and that Planning and Situation Officers go through refresher courses to be brought up to date with the technological and predictive developments. The requirement for greater input of local knowledge regarding weather and fire behaviour factors was identified to provide a “reality check” on the modelling and it was also suggested the system allow Incident Management Teams (IMTs) to alter predications or create their own predictive maps. It was mentioned there was too much emphasis on using the modelling to drive strategies.

The value of Phoenix as a situational awareness tool was noted and the predictions being available through eMap and distributed via EM Webmail was seen as a benefit to support decision making. In some instances the prediction products and maps were used to provide community advice. It was suggested that Phoenix predictions identify which Region it applies to, allowing emails to be filtered to target Regional email addresses in a similar manner to the Warnings and Advice messages. Fire modelling was also thought to need some refinement as the predications are currently based on worst case scenarios, and greater appreciation of this is needed as it tended to panic people with no local knowledge. Improvement in the accuracy of predictions was noted and was seen to have been managed in a coordinated manner. A clear understanding of the roles, capacity and management of consequence/impact identification and mapping at a state and regional level needs further development. Comments received from regional personnel suggested that there was too much interference with data in the SCC and IMTs needed to be left to respond to incidents. They also believed that interpretation of predictions was being applied to excessive footprints for media and evacuation planning purposes

The Joint Operations, Incident Management and Safety Survey and state-wide debriefs found the use of air observers to provide quick mapping and emailed photos of fire areas back to the ICC was a positive this season, and the intelligence gathering platform was very beneficial during initial attack.

The activation procedure and process for deployment of Portable Automatic Weather Stations (PAWS) requires some clarification and wider dissemination, as some people found it confusing and lengthy.

The peak Fire Danger Rating (FDR) predictions were extremely useful and the Forecast Explorer product was a tool that allowed flexible decision making. It was observed there were instances where it was thought the forecast Fire Danger Indices (FDI) were being underestimated, leading to some Regions and Districts making readiness arrangements based on worse than forecast conditions. It was suggested an analysis be carried out of actual verses forecasted FDIs to identify the scope of the issue. Requests were o increase the availability of current and timely spatial weather intelligence products. The daily weather teleconferences were seen as good source of information and the 3 day outlook and 7 day forecasts enabled better preparedness, however the need to maintain teleconference etiquette (eg. muting phones) and to follow the agenda was reported. It was highlighted further training and/or information sessions on the interpretation and application of weather and fire behaviour products were required for all agencies.

The distribution of these products to Regional Emergency Management Teams (REMTs) ensured all levels operated from a common point of reference. However it was noted by fire agency personnel and partner agencies the amount of information being sent out in “blanket” emails was at times overwhelming and could lead to important emails being missed. It was suggested that distribution be reviewed towards a more targeted approach.

Several non-fire partner agencies raised the significant impact “late” notifications of changes to the FDR/ the following day and the timing of Total Fire Ban (TFB) declarations, had on their customer service interruptions, personnel arrangements (standby and overtime) and the requirement to review planned works. It was acknowledged sometimes the limited timing of notifications was unavoidable; however it was requested that where possible, an early “heads up” of possible decisions be communicated.

Table 2 - Summary of Issues – Predictive Services and Products

Issue	Comment	Action
Timeliness, accessibility, quality and reliability	Improvement noted at Incident, Regional and State levels, particularly support provided from BoM and FBANs.	Noted positive feedback. Predictive Services steering committee established and commencing further refinement and improvement to predictive products.
Application of Phoenix modelling within the Metropolitan Fire District	Phoenix modelling not available within the MFD. Phoenix has limited application in MFD except in the isolated areas of grass and scrub. There is no automated generation of prediction mapping when a fire occurs and therefore requires manual generation.	This requirement will be evaluated for application in future upgrades to the existing system by the Predictive Services steering committee.
Provision and distribution of predictive products	Weather intelligence better than previous years, with information provided quickly and generally well distributed at briefings. More training and understanding of the tools needed. Increase the access and availability throughout agencies. More FBANs should be trained to increase pool.	Predictive services steering committee established and commencing further refinement and improvement to predictive products including reviewing state-wide FBAN capability and training.
Planning and Situation officer Training	Refresher courses for planning and situation officers to bring them up to date with developments in predictive tools and technology.	Referred to the MACC Working Group for consideration in future training activities.
Input of local knowledge	Greater local knowledge required to provide a “reality check” to modelling re weather and fire behaviour.	The incorporation of local knowledge in IMTs is specified in SOP J2.04 and the critical role local knowledge and validation of conditions plays in enhancing predictive products is reinforced in the Fire Agency Handbook and will be address in the Pre-season Update for 2013/14.
IMT use of Phoenix	IMT ability to alter predictions and create own predictive maps. Refinement of modelling as currently based on worst case	If the IMT has an FBAN then it is possible to do this. If not, the IMT can contact the SCC FBAN and provide information to amend the modelling and map produced. Business Rules being developed relating to access of SCC FBANs when no FBANs are at incident level. Reinforce existing arrangements at Local, Regional and State levels.
Phoenix modelling dissemination	Predictive modelling need to identify applicable Region and emails targeted to the appropriate Region. Amount of emails at times (Phoenix predictions) overwhelming which could lead to	Predictive services steering committee established and commencing further refinement and improvement to predictive products. Work underway via the SCC to refine email outputs. Phoenix is already

Issue	Comment	Action
	missed emails.	integrated into EMap. Business Rules being developed relating to access of SCC FBANs when no FBANs are at incident level.
Strategy development	Modelling having too much emphasis on strategy development.	Reinforce in pre-season briefings modelling is one factor in decision making regarding the development of strategies and tactics.
Consequence and impact identification	Further development of the roles capacity and management at State and regional levels requires clearer understanding.	Issues identified from 2012/13 will continue to be addressed through ongoing actions associated with the Joint Doctrine project and future implementation of AIIMS 4 prior to the 2013/14 FDP.
Air Intelligence	Use of Air observers to provide quick mapping and emailed photos back to ICC was valuable. Intel gathering platform very beneficial during initial attack.	Pre-season Briefings (2013/14) for air crews will reinforce the immense value of this intelligence gathering and sharing with IMTs to inform the development of predictive services products.
Portable Automatic Weather Stations	Activation procedure and processes requires clarification and wider dissemination, some found it confusing and lengthy.	CFA, DEPI and BoM are reviewing the requirements and processes of requesting and deploying PAWS units prior to 2013/14 FDP.
Fire Danger Indices	Instances where FDIs were thought to be underestimated leading to some regions making readiness arrangements based on worse than forecast conditions	The current project reviewing SOP J2.03 prior to the 2013/14 FDP incorporates actions to address this issue.
Interpretation and application	Further training on the application and of weather and fire behaviour products for all agencies.	Fire Weather Training Course is available and remains a key program to develop our people interpreting and applying weather products.
TFB/FDR/FDI notifications	Non fire agencies operations (staffing/customer services/etc) impacted by timing of notifications.	Notification procedures and processes via the SCC being streamlined to improve timeliness. Continue to monitor this through 2013/14 FDP. Reinforced through REMT the expected timelines for notifications.

Integrated Initial Attack

“First responding crews had a clear understanding of the procedures and operational priorities when they arrived on scene and during initial attack on the fire.”

“During initial attack activities, crews from various agencies worked together in an integrated way.”

This theme has generated responses from a wide range of levels within the fire agencies. The feedback at RCT and REMT levels were that there were few if any issues identified. The ultimate goal and application of an integrated multiagency initial attack is understood and supported as working efficiently in some areas of the state through information from debriefs and the survey.

Positive observations of the effective, rapid deployment by all agencies leading to many fires being controlled in the early stages were identified. An understanding by agencies of a common objective and strategy to hit fires hard was reported by survey participants as a contributing factor to this success. The working relationship with specifically forest industry brigades was also reported highlighting the role they play in initial attack in some areas. The successes of integration appears to have been best achieved in locations where agency personnel were familiar with one another, integrated local knowledge and respected one another's capabilities and roles as a result of briefings, exercising and attending previous incidents.

Aircraft deployment was increased this year and played an important role in the coordinated control of fires in the early stages. This year's trial of pre-determined dispatch of a Helitak resource from Bendigo has been recognised as a positive achievement and more detailed analysis of this initiative is the subject of an independent report on this trial.

There were an equal number of observations where opportunities exist for improvement provided by particularly survey respondents. RCT and REMT levels recognised that although integrated initial attack may have been successfully applied, from their perspective, it was identified that it could exist as an ongoing focus in briefings and exercises to effectively embed this as a standard activity.

Observations from other agency personnel did however identify and support the need for a continued focus on improvement against this theme. Observations of limited integration were reportedly caused by, in the respondent's opinions, a range of issues which can be consolidated into the following themes:

- Communication prior to and during response – particularly the application/use of communications plans which integrate early;
- Individual personnel knowledge and experience;
- Local relationships between agency personnel;
- Differing agency doctrine in relation to where the Incident Controller is located (CFA on scene vs. DEPI in office); and
- Different initial firefighting strategies and tactics (immediate aggressive direct attack vs. indirect attack).

In summary while examples and the general opinion of many within agencies is that significant progress has been, and continues to be made, in the integration of initial attack sufficient feedback through this process supports the ongoing concentration on improvement of this theme.

Table 3 - Summary of Issues – Integrated Initial Attack

Issue	Comment	Action
Application	Few issues identified at the regional level. Common objective and strategy identified as key success factor in addition to familiarity of personnel, integrated local knowledge, respect for capability and roles through briefings, exercises and previous incidents.	The application of Command & Control and in particular Transfer of Control is agreed between fire agencies in Victoria. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.
Inhibitors	<p>Communications prior to and during incidents, including the application/use of early integrated communications plans. Individual personnel knowledge and experience, local relationships between agency personnel.</p> <p>Differing agency doctrine on where the initial Incident Controller is located. Differing initial firefighting strategies (direct v indirect)</p>	<p>The application of Command & Control and in particular Transfer of Control is agreed between fire agencies in Victoria. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.</p> <p>The enhancement of local relationships and understanding of each agencies capacity, capabilities, knowledge and tactics remains the responsibility if State, Regional and local agency people to develop and enhance.</p>

Transfer of Control

“The concept of Division Command was clear”

“The transfer of control from the fireground to an ICC was achieved effectively? (If this was not practically applied is this concept clearly understood?)”

The level of operational activity this year was identified by personnel from all levels of fire agencies as one of the first seasons where Transfer of Control was applied and realistically tested in some parts of the state.

Many personnel acknowledged their understanding of the principles and process continues to improve through briefings, exercising and practical application and in many cases it was initiated more effectively than in previous years. These efficiencies included recognising incident cues (through good situational awareness) when to transfer control, timeliness, and ensuring clear communication was established with all key issues communicated to the incoming Incident Controller.

Incident Control Centres shadowing an incident for some time prior to the transfer was identified as a practice which enhanced the effectiveness of the transition.

While a number of clear observations supported an improved application a number of observations where further improvement exists were also provided. In general it was accepted that this continues to be one aspect of fire management that presents a need for further work to unconditionally establish this as multiagency doctrine.

A key observation, as a consequence of fire activity on days of lower readiness this year, was the challenge presented to transfer control on those days when no personnel were in Incident Control Centres.

General observations for improvement included:

- A need for more guidance and understanding of the principle, triggers and process;
- Improved application of Transfer of Control at rapidly developing incidents (e.g. fast moving grass fires);
- Ongoing improvements in communication between the fireground, Incident Control Centres and agency command and control personnel;
- Unilateral understanding and consistent adoption of the Div Comm role and responsibilities post the transfer of control; and
- Suitability of initial Incident Controllers to perform the Div Comm role once transfer has been facilitated.

In summary the feedback this year is that despite the positive progress made against this theme there is a continued need to maintain this as a priority area for improvement in order to ensure effective incident management at escalating incidents.

Table 4 - Summary of Issues – Transfer of Control

Issue	Comment	Action
Embedding Transfer of Control	Understanding of the principles and process continues to improve through briefings, exercises and practical application. Recognising the cues to transfer control, timeliness of transfer, clear communication of key incident issues, and the shadowing of incidents by ICCs before Transfer of Control contributed to effectiveness.	The application of Command & Control and in particular Transfer of Control is agreed between fire agencies in Victoria. Updating and clarification of Command and Control Arrangements for Bushfire underway to be completed prior to 2013/14. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.
Challenges to Transfer of	Transfer of Control on lower fire risk days when no ICC in place. Transfer of	The application of Command & Control and in particular Transfer of Control is agreed

Issue	Comment	Action
Control	<p>control at rapidly developing grassfires. Improving communication between fireground, ICCs and agency C & C personnel.</p> <p>Understanding and adoption of the Div Comm role and responsibilities post Transfer of Control. Suitability of initial fireground IC to perform Div Com role following Transfer of Control.</p> <p>More guidance and understanding on the principles, triggers and process identified in addition to the continued maintenance of Transfer of Control as a priority area for improvement.</p>	<p>between fire agencies in Victoria. Updating and clarification of Command and Control Arrangements for Bushfire underway to be completed prior to 2013/14. The application of Transfer of Control will continue to be a focus and reinforced through briefings, Pre Season Update, exercises and scenarios at Regional and local level prior to the 2013/14 FDP.</p> <p>Transfer of Control triggers, principles, etc is documented in the Fire Agency Handbook.</p>

Bushfire Safety Policy, particularly Warnings and Advice

“Warnings and advice to the community were provided in a timely manner, with tailored and relevant information during incidents.”

“The various methods and tools including, social media, OSOM, EA, community meetings, VBIL etc., were utilised to disseminate warnings and advice.”

Table 5 – Messaging Summary – 2012/13 FDP

Messaging Summary		
Emergency Warnings	Watch and Act	Advice
123	349	1756

Emergency Alert was utilised 61 times by agencies throughout the period 1 December 2012 – 31 March 2013 to communicate key warnings and advice to the community using telephone based infrastructure.

There was mixed feedback regarding warnings and advice and media messaging this season. Overall warnings and advice were seen as being more readily available, timely and included better information and the purpose built templates, tools and standard terminology assisted in the timeliness and content of the messaging. Some survey respondents thought that dissemination and management of warnings improved as the season progressed, and face to face community meetings were held at the right time during and post incident. Access to local knowledge was identified as a strength this season, as was the timely and quality support service provided by the One Source One Message (OSOM) and Emergency Alert (EA) helpdesks. The Victorian Bushfire Information Line (VBIL) was praised for having constant high performance. The provision of warnings and advice provided a trigger point for agencies represented in REMTs and enhanced situational awareness. Warnings and Advice Officers located in District offices provided the capability to issue messages prior to an IMT being in place or a transfer of control being required, and there was throughout IMTs of the role of the Public Information Officer and Warnings and Advice Officer positions. More work is required though to manage the effective functional transfer of warnings and advice from District to incident, to ensure continuity of information. The great work by dedicated personnel in these roles was recognised, and it was acknowledged that a lot of pressure is put on the Public Information Section during response. The benefit of having a Warnings and Advice Officer in every IMT was recorded.

Proactively initiating public advice and information at a Regional level worked well, with the example given of the Kal-Kallo-Donnybrook Road fire. This fire also demonstrated the need for messages to be tailored to interface risks, ie. fast running grass fires on the urban interface.

Broadly however, several areas requiring improvement were identified. Some users found the OSOM system slow and difficult to use and some purpose built templates were thought to be ‘clunky’. Improving

the tracking of warnings in OSOM was also suggested. Anecdotal evidence received by regional personnel suggested some terminology used is not understood by the community (e.g. shelter in place) and that more work needs to be done in ensuring community understanding of message instructions. Terminology used needs to be much clearer for members of the public and messaging in languages other than English needs strengthening. A potential problem was identified where three separate "advice" messages could get interpreted as three different fires by media outlets, providing an example of how content is. Consistency around what incidents require messaging also needs attention particularly outside of the fire danger period. Supporting evidence for these potential improvements was also gathered as part of the Fire Services Commissioner's "*Review of responses of fire-affected communities*", from interviews with households affected by the Chepstowe, Aberfeldy and Donnybrook fires. The report of the review contains detail on the communities' feedback focussing on actions by agencies in the areas of education and awareness, community capacity building, local planning, warnings and safety options.

There were instances noted this year where broadcasters were transmitting out of date messages, identifying a need to reinforce with broadcasters the requirement to ensure timely and accurate information. It was suggested that advice be provided to broadcasters that where they are transmitting multiple incident messages, that they deliver all of the messages first then read out the "What to Do" section, to avoid repetition.

As in previous years, there continues to be a challenge balancing the need to provide community information as quickly as possible with the time necessary to get a suitable and accurate picture from the fireground of what is happening. It was noted several times that a report of the situation should come in first to help ascertain whether a message is required. Keeping up with public information on social media has added complexity to this issue. State-wide, the volume of messaging was highlighted as a situation that needs attention, particularly the instances where messages were constantly being updated due to grammatical errors rather than any change in status or message content. Regions also requested that messaging emails be sent to relevant EM Webmail addresses rather than broadcast, and that they be accompanied by a polygon map. Having these polygon maps available as a layer in eMap (similar to Phoenix predictions), was suggested as a potentially useful improvement.

The need to review existing protocols for the approval of message changes, media protocols, pre drafted messages and terminology for all hazard types, and the usability of the templates and tools was raised across the state. Feedback from respondents in the Joint Operations, Incident Management and Safety Survey also supported the need for work in these areas. Feedback received suggested that the ability to put more detail in the messages and the insertion of maps should be considered in any template reviews. The options to choose from regarding incident status were also thought to be limited and not sufficiently targeted to the incident situation and threat to the community. The communication of changes to process from State to Regions was also thought to be inappropriate at times, and a different approach needed to be considered. Some Regions found that regular meetings of people involved in the Public Information Section to share information and skills increased the level of confidence amongst the team members.

The relationship between State, Regional and Incident level information sections needs some development, particularly in the areas of roles and responsibilities and information flow. Regionally based personnel expressed concern about the level of micro-management from the monitoring role of the State and a lack of appreciation of the stress and demands they faced. They felt that having more confidence in the abilities of regional personnel would be an improvement.

Refresher training for regionally based Duty Officers was suggested to improve their understanding of what the message templates mean and assist them in deciding when it is appropriate to send out a warning or advice message. Respondents to the Public Information Section feedback survey identified a need to increase regular practical training scenarios, take the opportunity to provide mentoring and guidance more often and conduct refresher training. In addition, providing more opportunities for personnel to assume higher responsibilities was identified.

Increasing the capacity of Public Information Officers in the Regions was highlighted as a significant need to increase the availability of trained personnel. Further media training to increase understanding of the warnings and what they mean was raised. It was also suggested that the requirements for tertiary teams in the SOPJ 2.03 Incident Management Teams – Readiness Arrangements be reviewed to include a Warnings and Advice Officer in place of or as well as a Public Information Officer. Requests for state-wide investment in more convenient and reliable computer equipment and network access for Public Information Section Officers were made, to help support effective roster changeovers and role performance.

Table 6 - Summary of Issues – Bushfire Safety Policy, particularly Warnings and Advice

Issue	Comment	Action
Timeliness and relevance	<p>Overall seen as more readily available and included better information with templates, tools and standard terminology assisting with timeliness and content.</p> <p>Access to local knowledge was also identified as a strength as was the timely and quality support provided by the OSOM and EA helpdesks.</p> <p>Warnings and advice provided a trigger for non fire agencies and enhanced overall situational awareness.</p>	<p>This issue received considerable positive feedback from Public Information Section personnel; nonetheless further provisions are being made within Warnings and Advice templates (OSOM) for local information and a standardisation of multi-agency terminology.</p> <p>Warnings and Capability Working Group development and implementation of an agreed multi-hazard monitoring and evaluation framework for Public Information</p>
Location of Warnings and Advice and Public Information Officers	<p>Greater understanding throughout IMTs this season of the role of Warnings and Advice and Public Information Officers, including the benefit of a Warnings and Advice officers in every IMT.</p> <p>Use and clarity required of Warnings and Advice officers at district and subsequent transfer of responsibilities and function to ICCs.</p>	<p>This again received positive feedback from Public Information personnel, however there remains a need to ensure adequate Public Information personnel are available in key locations based on risk. This is also being reviewed as a component of the SOPJ2.03 review project.</p> <p>IAP template being updated to include Public Information requirements prior to 2013/14 FDP.</p>
Urban interface	<p>Tailoring of messages identified for urban interface fires.</p>	<p>New OSOM Warnings and Advice templates are designed to cater more effectively for urban interface incidents and the required messaging to these communities. An interface Project has commenced to address this.</p> <p>See also Warnings and Advice Systems and Terminology and content in Warnings and Advice below.</p>
Warning and advice systems	<p>OSOM system identified as slow and difficult to use by some operators, Some of the templates were thought to be 'clunky'. Improved tracking of warnings also identified</p>	<p>A number of useability enhancements are currently being incorporated into OSOM and will be implemented prior to the 2013/14 FDP.</p> <p>Warnings and Capability Working Group development of revised templates for warnings, including amalgamation of the 17 "Warnings" to 10. New template wording will take account of differing situations e.g. taking shelter, leaving, upgrades, updates, downgrades campaigns and are also tailored to prompt local or relevant information to be included.</p>
Terminology and content in Warnings and advice	<p>Some terminology used in Warnings and Advice messages not understood by community with further work required to ensure community understanding of message instructions.</p> <p>Importance of clear content highlighted. Further work required to strengthen the messaging in</p>	<p>Warnings and Advice messages are continually evolving and modified based on both community and agency feedback. A particular emphasis in community testing is specific fire terminology. Warnings and Capability Working Group to develop agreed multi-hazard processes for SCC Warnings Unit monitoring and support of ICC/RCC Warnings staff before 2013/14 FDP.</p>

Issue	Comment	Action
	<p>languages other than English.</p> <p>Volume of messages needs attention particularly where messages were being updated to fix grammatical or spelling errors.</p> <p>Protocols for approval of message changes, pre drafted messages, usability of the templates and tools identified as requiring examination. The ability to add more detail, the insertion of maps and further options for the choice of incident status also identified.</p>	<p>Enhanced OSOM Templates will encourage the extension of local and incident specific information. New templates will also be translated into other languages ensuring our Culturally and linguistically diverse communities receive this information in a more suitable and relevant manner.</p> <p>Warnings and Capability Working Group development of revised templates including;</p> <ul style="list-style-type: none"> • Change 'expiry time' to 'next update' and move to the end of the message; • Restructure messaging within the incident information to better reflect the needs of communities. e.g. names of the towns to be impacted, the critical message for each warning and the major road closures to the top of the message; • Ability to refine the information in the 'What to do' based on needs of those to be impacted; • Rewording and removal of messaging that was not relevant to those in immediate danger. <p>Aligned with the ongoing development of VINE consideration of integration of mapping capabilities into OSOM to create the ability for a map to be produced as part of the warning output.</p>
Broadcasters	Some reported instances of out of date messages being provided by broadcasters. Suggested need to avoid repetition of 'What to do' when broadcasting messages for multiple fires.	An Emergency Broadcaster "audio friendly" version of the Warnings and Advice templates is currently being developed. Combined with regular briefings and training provided to these broadcasters this will overcome this issue.
Roles and responsibilities of personnel	Clarity required on the role, responsibilities and functions of Public Information functional areas at each tier of management.	<p>Training, exercising and briefings provided before the 2013/14 will incorporate the critical function the Public Information Section provides in incident management.</p> <p>Warnings and Capability Working Group to develop agreed multi-hazard processes for SCC Warnings Unit monitoring and support of ICC/RCC Warnings staff before 2013/14 FDP.</p>

Evacuation

"Arrangements for evacuation (procedures, triggers and processes) during bushfire were well understood."

Whilst there were no evacuations carried out during fire incidents this season, Regions spent a great deal of time planning for potential evacuations and exercising possible scenarios, which were found to be very worthwhile and gave agencies a greater understanding of what needs to be considered in the process. Pre-season liaison meetings also improved relationships and helped personnel work together smoothly when in "response mode". Emphasising evacuations in the pre-season briefings and workshops was supported and should be continued. Mutual aid agreements between municipalities to share resources and manage "cross border" issues worked well. Understanding of the concept, application and

collaborative approach required is still limited in some areas of the state, and awareness needs to be increased through further exercising and agency engagement processes.

Several Regions had identified evacuation managers and agencies had worked together to have established procedures for vulnerable locations where an on the day evacuation is not an option. Having evacuation managers in ICCs worked well and provided greater awareness. It was highlighted that lessons identified from experiences across the State needed to be communicated and shared to help reinforce arrangements and enhance understanding of the policy and procedures. It was also suggested that consideration be given to Victoria Police personnel delivering evacuation training as part of pre-season briefings, and that a wider involvement of REMT members was required when conducting evacuation exercises.

Enhanced information flow to partner agencies was identified as an area for improvement, particularly early advice of “incidents of interest” from the RCT to Department of Health/Human Services. Communities were occasionally advised of relief centres that were open in their area, which would have required members of the public to drive towards/through the fire area or that were a long way away. Anecdotally, as soon as members of the public required transport they were reluctant to go to the relief centre. Greater awareness that evacuation may not always be possible was needed.

There were some instances of community members “self evacuating” to a location where they would normally go, however that facility was not identified as a Relief Centre or a Neighbourhood Safer Place-Place of Last Resort. A review and update of the designated locations state-wide may be timely, with the updated listing disseminated throughout the emergency agencies and included as a layer in the Infrastructure folder on eMap.

Anecdotally there appears to be a need for some further work regarding when an evacuation process is applied, compared with what some would term a “relocation/temporary relocation”, particularly on the edges of populated areas.

Table 7 - Summary of Issues – Evacuation

Issue	Comment	Action
Understanding and application	<p>Understanding of the concept, application and collaborative approach required is still limited in some areas of the state, and awareness needs to be increased through further exercising and agency engagement processes.</p> <p>Evacuation managers in ICCs worked well and provided greater awareness. Wider involvement of REMT members was required when conducting evacuation exercises.</p> <p>Enhanced information flow to partner agencies was identified as an area for improvement, particularly early advice of “incidents of interest” from the RCT to Department of Health/Human Services.</p> <p>Further work regarding when an evacuation process is applied, compared with what some would term a “relocation/temporary relocation”.</p>	<p>Principles of evacuation will continue to be reinforced for the 2013/14 FDP through briefings, exercises and scenarios. Evacuation will again be addressed in the Preseason Update and guidance in provided in the Fire Agencies Handbook.</p>
Community response	<p>Community members “self-evacuating” to a location where they would normally go, however that location was not identified as a Relief Centre or a Neighbourhood Safer Place.</p> <p>Communities were occasionally</p>	<p>Community options relating to evacuation are a component of Community Information Guides developed for high risk areas throughout Victoria.</p> <p>The requirement of information relating to evacuation is specified in the SOP J3.12 in</p>

Issue	Comment	Action
	advised of relief centres that were open in their area, which would have required members of the public to drive towards/through the fire area or that were a long way away.	particular preferred routes of travel to places of shelter.

Incident Management Team Readiness

“Incident Management Teams were resourced and in place in accordance with JSOP 2.03 Incident Management Teams”.

Application of SOP J2.03 Incident Management Teams – Readiness Arrangements this season required a significant commitment from fire agencies and our emergency management partners to resources these facilities, in addition to the SCC and Regional Control Centres (RCCs).

The following figures depict the number of readiness days for the state between 1 December 2012 and 20 March 2013 to illustrate this commitment.

Figure 4 – CFA/DSE Readiness Days per SOP J2.03 – 1/12/2012 – 20/3/2013

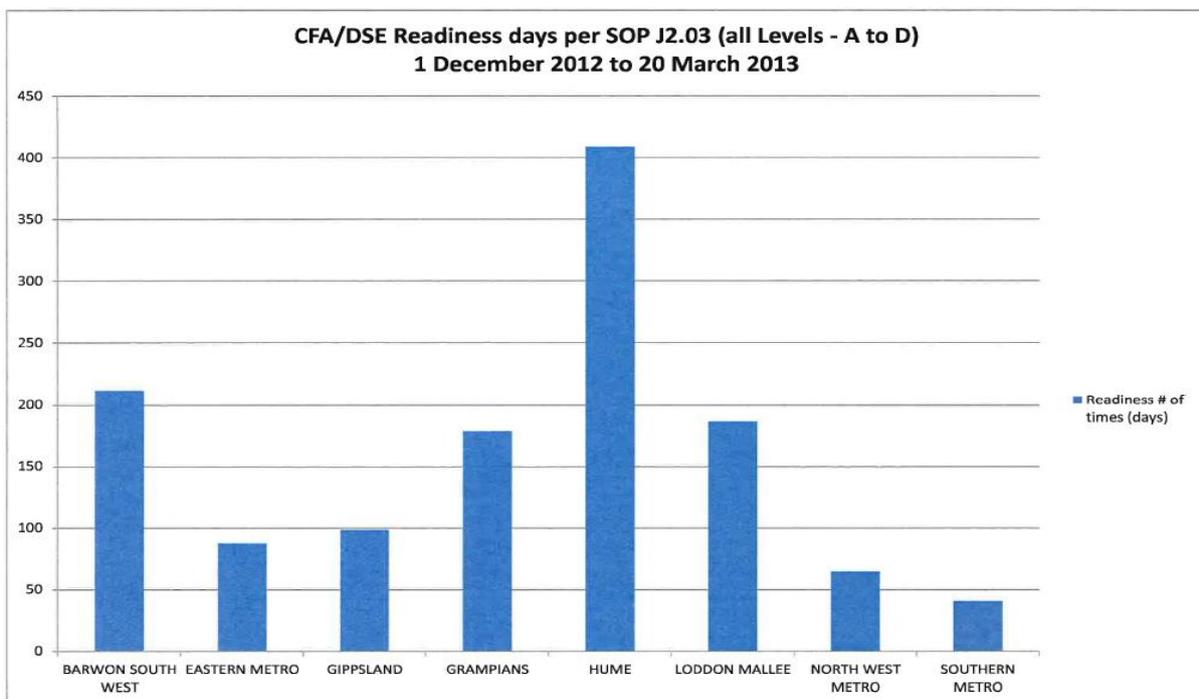
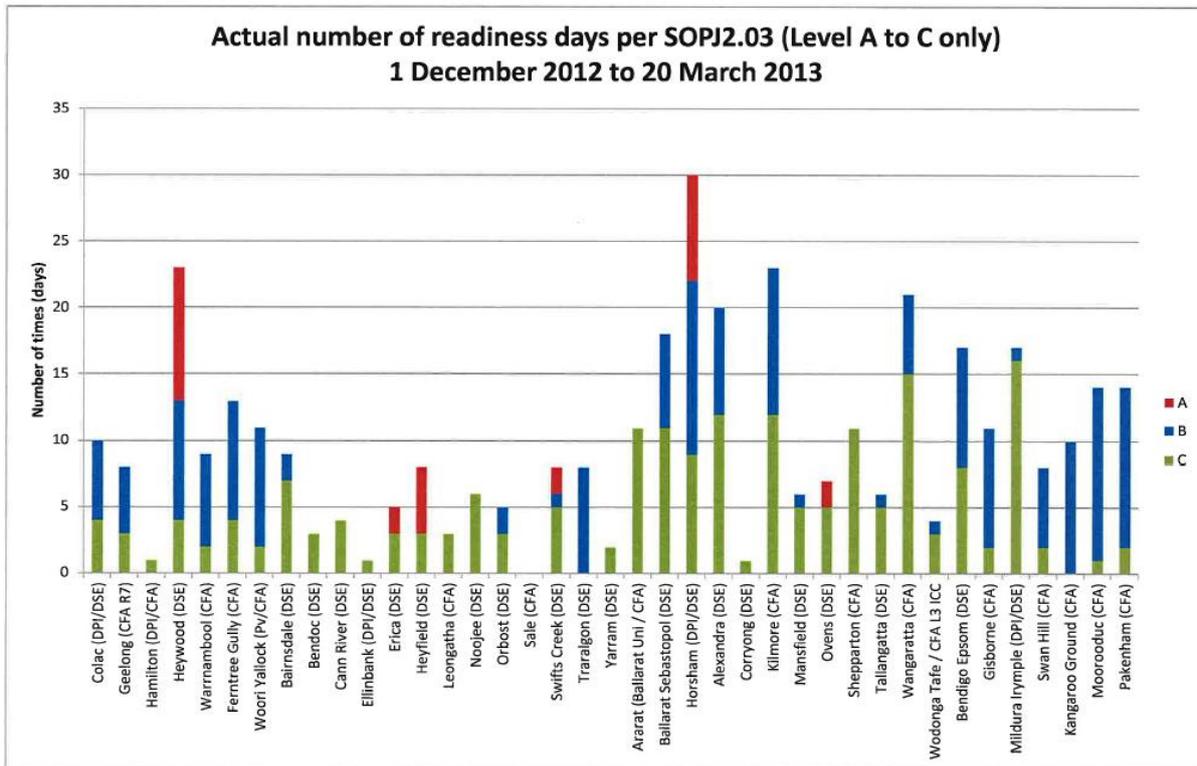


Figure 5 – Actual number of readiness days per SOP J2.03 – 1/12/2012 – 20/3/2013



Feedback through both Regional debriefs and survey respondents supported the strong commitment and application of the JSOP requirements in terms of readiness. While challenges were reported in sourcing personnel at various times it was supported that all Regions had generally succeeded in achieving the requirements of the JSOP throughout the FDP. Many responses and observations supported that IMTs were in place on high risk days. It was also recognised that the flexibility of people to work across Districts and other traditional borders played an important role in achieving the IMT expectations outlined in the JSOP.

Positive responses were received regarding the manner in which multiagency teams worked together very effectively and in particular those that are finding they work within the same teams, with the same people regularly. Respondents to the survey reported teamwork, knowledge sharing and an improved understanding of each agencies systems as further positives. Pre-season exercises and drills on days of heightened readiness were in ICCs have been identified as initiatives adding to the development of capability and capacity. Opportunities to mentor people were also identified as a further achievement during the season.

A number of comments were received regarding the pre season review of JSOP2.03 and it was generally felt that this achieved little and that any review of the existing arrangements needed to be more detailed and engaging.

A considerable number of responses were provided both in debriefs and through the on line survey that the JSOP is not sustainable in its present form. Most specifically in relation to the number of personnel required when a number of ICCs were regularly required to be ready base on the predicted weather. Many felt that there were not sufficient people to resource IMTs for a prolonged period and that the achievements this years were in part to people who essentially made themselves available every day. The fatigue and burnout of people was identified to have not just an effect on fire agencies but also our emergency management parts who in some cases have far less people from which to draw from but still feel it important to be available to deploy to ICCs or RCCs.

The minimum IMT composition was also highlighted as an area for further improvement with recommendations that Management Support for the Incident Controller and IMT is a critical role often not initially supported. Some responses also identified the initial requirement for Deputy Incident Controllers at early stages of fires and a consideration for this position to be included in Tertiary IMTs was suggested.

The issue of FDI triggers for IMT readiness received a considerable level of discussion and response. While defining a trigger was considered important the existing triggers were considered to require some

review based on the impact on people and the continued sustainability of IMT personnel during protracted period of readiness.

In summary the application of SOP J2.03 this year was reportedly achieved in most if not all cases across the state. The general concerns raised by our people throughout this review process has been around the sustainability of IMT composition throughout protracted period of readiness. This JSOP is currently the focus of a comprehensive review prior for any amendments to be in place for the 2013/14 FDP and will consider the observations and insights collected through this review process.

Table 8 - Summary of Issues – Incident Management Team Readiness

Issue	Comment	Action
Application of SOP J2.03	<p>Strong commitment and application of the JSOP requirements in terms of readiness.</p> <p>While challenges were reported in sourcing personnel at various times it was supported that all Regions had generally succeeded in achieving the requirements of the JSOP throughout the FDP.</p> <p>Multiagency teams worked together very effectively in particular those that work within the same teams, with the same people regularly.</p> <p>Teamwork, knowledge sharing and an improved understanding of each agencies systems were further positives.</p>	<p>SOP J2.03 is the subject of a comprehensive project to review and implement improvements prior to the 2013/14 FDP. The issues identified here and others have been provided to the project team to inform outcomes. Completion planned for 30 August 2013.</p>
Sustainability of SOP J2.03	<p>JSOP is not sustainable in its present form, specifically in relation to the number of personnel required when a number of ICCs are regularly required to be ready based on the predicted weather. Many felt that there were not sufficient people to resource IMTs for a prolonged period</p>	<p>SOP J2.03 is the subject of a comprehensive project to review and implement improvements prior to the 2013/14 FDP. The issues identified here and others have been provided to the project team to inform outcomes. Completion planned for 30 August 2013.</p>

Traffic Management Points

“The passage of CFA Volunteers through Traffic Management Points has improved since the adoption of a single identification system”.

“The operation of Traffic Management Points effectively and efficiently managed access to fire affected areas by emergency agencies, the public and other key support organisations”.

Traffic Management Points (TMPs) received little attention through Regional debriefing including those associated with the Aberfeldy and Harrietville fires. In general there was little discussion however it was felt by RCTs and REMTs that TMP operation was effective from their perspective.

Observations from survey respondents provided additional relevant information on this theme. Victoria Police were recognised as providing excellent and timely support, communication and collaborated with effectively with IMTs in decisions associated with where and when to establish TMPs.

The use of CFA identification cards and not the sole reliance on vehicle stickers was observed as a positive from field personnel. In addition general observations from a number of survey respondents supported the effective performance of TMPs.

Conversely a number of personnel provided observations that supported a need for further review and continued improvement of the operation of TMPs. These observations related primarily to:

- Community understanding of TMPs;
- Access through TMPs for people who lived in the affected area;
- People leaving their property to attend community meetings only to find they could not return to their homes through a TMP;
- Confusion around the continued applicability of some vehicle stickers and the movement of agency personnel who were not in an agency vehicle;
- Some CFA personnel not carrying their identification cards resulting in issues passing through TMPs;
- Access to temporary passes at some locations;
- Inconsistency in the application of TMP guidelines and access; and
- Maintenance of TMPs after the passage of an incident.

One observation in particular was provided in detail relating to a debrief associated with the Aberfeldy fire where community members were critical of CFA and DEPI for permitting media access ahead of locals who wanted to return and check on stock and other property. At the same meeting it was expressed there appeared to be different interpretations as to the need for addresses to be provided on CFA identification cards to demonstrate legitimacy for access.

Victoria Police have undertaken an internal review of their activities throughout the FDP. Initiated by Inspector Ricky Ross, Regional Emergency Management Inspector – Gippsland, he has collected feedback from Victoria Police members, including those observations relating to TMPs, and is currently completing this report for presentation in the immediate future to Victoria Police Command.

In summary the observations relating to TMPs demonstrate positive improvements but equally identify a number of key issues requiring further review and resolution. The fact Victoria Police has collected information from their member's experiences throughout the FDP also presents a positive opportunity to share this information with fire agencies and for a collaborative review and further improvement development.

Table 9 - Summary of Issues – Traffic Management Points

Issue	Comment	Action
Management of Traffic Management Points	<p>Victoria Police were recognised as providing excellent and timely support, communication and collaborated effectively with IMTs in decisions associated with where and when to establish TMPs.</p> <p>The use of CFA Member Identification cards and not the sole reliance on vehicle stickers was observed as a positive from field personnel.</p>	<p>Traffic Management Point information is included in the Fire Agency Handbook and will be incorporated into the scenarios used as part of pre season briefing activities ahead of the 2013/14 FDP.</p>
Operation of Traffic Management Points	<p>A number of key issues identified -</p> <ul style="list-style-type: none"> • Community understanding of TMPs; • Access through TMPs for people who lived in the affected area; • People leaving their property to attend community meetings only to find they could not return to their homes through a TMP; • Confusion around the continued applicability of some 	<p>Victoria Police have completed review of the Guidelines for the operation of Traffic Management points with an updated version to be published by October 2013. Observations from the review will be referred to Victoria Police for consideration as part of this process.</p>

Issue	Comment	Action
	vehicle stickers and the movement of agency personnel who were not in an agency vehicle; Some CFA personnel not carrying their identification cards resulting in issues passing through TMPs; <ul style="list-style-type: none"> • Access to temporary passes at some locations; Inconsistency in the application of TMP guidelines and access; • Maintenance of TMPs after the passage of an incident. 	

Interoperability

“The progressive standardisation of operating systems and information and communications technologies since 2009 is achieving greater efficiency and interoperability between fire agencies. Examples of where this is benefiting/limiting operations are.....”

Improvements in accessibility to other agencies systems such as CFA Incident Management System (IMS) and FireWeb and the wider use of EM Webmail, the state-wide shared “R drive” and eMap has helped ensure all levels are operating from a common platform. Where interoperability issues have been identified, Regions noted that they were negated by stronger established relationships between agencies at all levels, built through briefings, workshops and making the most of exercising opportunities throughout the year.

The use of both IMS and FireWeb across the state demonstrated the numerous times incident details conflicted between the independently maintained systems, and drew attention to the need for a single input platform capable of supporting the all hazards approach to incident reporting. Seemingly minor matters such as the format that documents were provided in, occasionally created issues when agencies did not have specific IT programs to open them. The inconsistent and adhoc storage of documents on the shared “R drive” was highlighted as potentially leading to information sharing difficulties, and was noted as needing some reinforcement at pre-season briefings and updates. A records management system was trialled at a location in Loddon Mallee Region, which contributed to improved information flow and was recognised as a success.

The timely sharing of information, knowledge and skills, increased understanding of other agencies capabilities and resources and the increased trust between agencies was identified as having improved this season. The increasing involvement of MFB in learning the roles and responsibilities within ICCs and RCCs in the Metro Regions received positive feedback and further training and mentoring was noted as something that needed to continue. The MFB also noted that there are a number of non-command staff who have been trained in IMT roles that have been underutilised, and will discuss ways of addressing this.

Familiarisation sessions of ICC and RCC facilities were highlighted as a good way for personnel to feel part of the team. Some Regions have identified that the location and standard of facilities of several RCCs and ICCs may not meet agency requirements, and suggested that these be reviewed along with SOP J2.03.

Communication within agencies and with our partners, particularly at incident and Regional emergency management level, is solid. Communications between ICCs, RCCs and the SCC was seen to have been better than previous years. There was good use of SMSer, teleconferences and email for information sharing and advice. The phone app was well received. Some agencies have indicated the consequence of this however is information overload. The clarity and consistency of notifications in some instances was also noted as requiring improvement, particularly by partner agencies who have members that cover multiple Regional boundaries. A further challenge for those agencies is providing enough representatives to attend multiple Regional teleconferences that are being held simultaneously. There were also some examples given where agency based information sharing was inadequate, and it was suggested that reinforcing procedures and the importance of situational information flow, including briefings at the beginning of shifts, be included in Regional Pre-Season briefings.

Seventy-two percent of respondents to the Joint Operations, Incident Management and Safety Survey believed that “Joint operations were genuinely integrated”. This is much lower than the previous year result of 81% but just higher than the 10 year average of 69%. Comments from those respondents who did not agree with the statement, as to why genuine integration was not achieved included lack of familiarity and interoperability of systems and processes, culture and individual personality differences, communication issues and uncertainty around roles and responsibilities.

As in previous seasons, radio and mobile phone black spots were identified during incidents. It was acknowledged that there was already a state-wide project to address this, with interim improvements suggested such as distributing the availability of resources to supplement radio communications.

The State Resource Request System was commended as showing promise for a new system but it was noted that it still required business rules to be developed and more extensive training in its use. There was some confusion surrounding strategic resource management when deploying resources to other Regions and a lack of understanding about resources available within a Region and required by requesting Regions. Placing a Resources Officer at the regional level was found to assist in the coordination of multi-agency resources in some Regions.

It was raised that DEPI’s ability and capacity to disseminate key information to field locations was often restricted to manual distribution of printed material, and that investment needed to be made to update hardware to current technology smart phones and tablets that could support incident management applications.

Greater clarity of roles, responsibilities and understanding of capabilities was acknowledged this season as a reason for agencies working well together. Reflections from some Regions described a culture shift to a more integrated and collaborative approach, with good interagency relationships built upon strong leadership and common values.

Table 10 - Summary of Issues – Interoperability

Issue	Comment	Action
Systems	<p>Improvements in accessibility to other agencies systems and the wider use of EM Webmail, the shared “R drive” and eMap has helped ensure all levels are operating from a common platform.</p> <p>Where interoperability issues have been identified they were negated by stronger established relationships between agencies at all levels through briefings, workshops and exercises.</p> <p>Conflicting incident details often apparent between IMS and Fireweb.</p>	<p>Significant progress has been made and continues towards common systems for incident management, information sharing and resource management. While independent systems exist it remains a key responsibility of agencies at State, Regional and local levels to ensure that information is consistent.</p>
Information Flow	<p>The format that documents were provided in occasionally created issues when agencies did not have specific IT programs to open them.</p> <p>The inconsistent and adhoc storage of documents on the shared “R drive” was highlighted as potentially leading to information sharing difficulties.</p> <p>The timely sharing of information, knowledge and skills, increased understanding of other agencies capabilities and resources and the increased trust between agencies was identified as having improved this season.</p> <p>Communication within agencies and</p>	<p>FSC office is developing standards and business rules relating to file structure, storage and use of common format types to continue to improve information sharing in the IT environment.</p> <p>Relationship enhancement and development at local, Regional and State level remains a key component to effective information flow and sharing.</p> <p>Development underway to streamline and simplify use of existing emergency management systems comprising three securely accessible web based sites. These sites will incorporate simplified sign on and will provide:</p> <ol style="list-style-type: none"> 1. Improved operational awareness with

Issue	Comment	Action
	<p>partners, particularly at incident and Regional emergency management level, is solid. Communications between ICCs, RCCs and the SCC better than previous years. There was good use of systems for information sharing and advice.</p> <p>Potential for information overload if not managed strategically.</p> <p>Some examples of agency based information sharing being inadequate, requiring reinforcing of procedures and the importance of situational information flow, including briefings at the beginning of shifts.</p>	<p>key information in one place -Emergency Management Dashboard (EMD) will bring information from a number of existing systems into one place to give better operational awareness, including incident lists, mapping, warnings and briefings. This dashboard is being developed through the DEPI Bushfire ICT project and will have views at the state level for the SCC and at each of the regional levels for RCCs.</p> <p>2. Links to emergency management applications - Emergency Management Portal (EMP) brings together a collection of quick links to applications, tailored for each functional unit. It also includes quick links to common regularly updated information such as Contacts, Current Activation Level, Duty Rosters, Daily Schedules, Reports and Briefings.</p> <p>3. Authoritative document reference library - Emergency Management Knowledge (EMK) brings together all common reference information into a single library with an integral authoring and publishing process. This includes Functional Role Descriptions, SOPs, Policies, Work Instructions, Guidance Notes, Product Catalogue, Safety Fact Sheets and information on ICT Systems such as eMap, EMwebmail, IMS and R-Drive. Much of this information exists as multiple copies in various sub folders of the R-drive and the SCC Extranet. EMK provides an authoritative and easily accessible source for this information.</p>
Resources - Personnel	<p>Greater clarity of roles, responsibilities and understanding of capabilities was acknowledged this season as a reason for agencies working well together.</p> <p>Some Regions described a culture shift to a more integrated and collaborative approach, with good interagency relationships contributing.</p> <p>The increasing involvement of MFB in within ICCs and RCCs received positive feedback noting however that there are a number MFB staff who have been trained in IMT roles but underutilised.</p>	<p>Updated and new role descriptions for all positions at state, regional and incident level developed by 2013/14 FDP.</p> <p>Continue to utilise personnel from all fire and partner agencies (where appropriate) in IMT and EMT roles for which they have been trained.</p>
Resource management	<p>Highlighted at all levels as requiring attention.</p> <p>The State Resource Request System was showing promise for a new system but it was noted that it still required business rules to be developed and more extensive training</p>	<p>Further improvements in the knowledge of agency personnel about the existence and operation of the State Resource request System will be addressed through individual section and unit training and briefings and incorporation into scenarios and exercises conducted prior to the 2013/14 FDP.</p>

Issue	Comment	Action
	<p>in its use.</p> <p>Confusion surrounding strategic resource management when deploying resources to other Regions and a lack of understanding about resources available within a Region and required by requesting Regions.</p>	

Back-burning Approval

“In accordance with VBRC Recommendation 25 – The Incident Controller approved back-burns prior to them being lit”.

Back burning approval feedback was limited in comparison with other debriefing themes, but found that where back burning was conducted as part of incident management, that details were included in Incident Action Plans approved by the Incident Controller. Instances were noted where Division and Sector Commanders engaged Strike Team Leaders in discussing the safety of conducting back burns and that approvals were more timely. Debriefing suggested that the process was working and that great information was provided in a timely manner through the REMTs. Linked to this was feedback that good information was being provided about planned burning.

A comment was made in the Joint Operations, Incident Management and Safety Survey that people on the fire ground perhaps should be approving back burning as they are close and can monitor what is going on.

Table 11 - Summary of Issues – Back-burning Approval

Issue	Comment	Action
Compliance	<p>Where back burning was conducted as part of incident management, the details were included in Incident Action Plans approved by the Incident Controller.</p> <p>Instances were noted where Division and Sector Commanders engaged Strike Team Leaders in discussing the safety of conducting back burns and that approvals were more timely.</p> <p>Regional debriefing suggested that the process was working</p>	<p>This issue was well addressed through adherence by fire agency personnel to the required approvals to be sought for backburning.</p> <p>Shift plans, as a component of the IAP, remain the key documentation outlining backburning approval by the Incident Controller where this is identified as an appropriate control strategy.</p>

Other key observations and findings

- **Command and Control Arrangements for Bushfire**

This season was seen as a good state-wide opportunity to operationally test the arrangements in place from previous years. Overall feedback was positive, with the relationship and team building that has occurred assisting in solid readiness and response activities.

Several Regions identified a need for review of the Command and Control Arrangements based on this year’s level and length of operational activity to ensure that key learnings are captured, shared and acted upon. In particular, consistency in the functions and Incident, Region and State levels, expectations of the Regional Control resourcing models, application of line of control and understanding of when line of control is in place for which incidents. Feedback received also documented a sense of frustration that the State level questioned operational decisions being made at Regional and Incident level, instead of empowering and trusting people in the roles they were performing. It was also felt that the State level should have more of a strategic focus.

Across the state the capability and capacity to meet the arrangements was said to be challenging by all fire and partner agencies. All agencies are working towards building a broader group of personnel to fill roles and provide representation to management teams and there is an acknowledged commitment of agencies in support of readiness, response and recovery. It was also suggested that a state position needed to be developed addressing the elements that contribute to incident and emergency management capability, helping to address sustainability of resourcing, common training and exercising frameworks and common readiness processes to name only a few. Changing doctrine “on the run” throughout the season was generally not well received.

There remains some uncertainty about the roles and responsibilities of emergency response coordinators and non-fire agency commanders in the RCT, and further clarification is needed regarding the arrangements for Incident and REMTs. A broader understanding is required of the role and capacity of support agencies such as the Department of Human Services.

The impact of Command and Control Arrangements combined with expectations on agencies to participate, created some issues this year regarding agency “normal” business and demonstrated how improved linkages are needed in this area.

Table 12 - Summary of Issues – Command and Control Arrangements for Bushfire

Issue	Comment	Action
<p>Functions and Roles</p>	<p>Identified need to ensure consistency in the functions at Incident, Region and State levels, expectations of the Regional Control Team, resourcing models, application of line of control and understanding of when line of control is in place for which incidents.</p> <p>Some concerns identified that State level questioned operational decisions being made at Regional and Incident level. It was also felt that the State level should have more of a strategic focus.</p> <p>Need for a state position addressing the elements that contribute to incident and emergency management capability, to address sustainability of resourcing, common training and exercising frameworks and common readiness processes.</p> <p>Changing doctrine “on the run” throughout the season was generally not well received. uncertainty about the roles and responsibilities of emergency response coordinators and non-fire agency commanders in the Regional Control Team</p>	<p>Issues identified from 2012/13 will continue to be addressed through ongoing actions associated with the Joint Doctrine project and future implementation of AIIMS 4 prior to the 2013/14 FDP.</p> <p>Updated and new role descriptions for all positions at state, regional and incident level developed by 2013/14 FDP.</p>

- **Personnel welfare**

As a result of the level of activity, management of fatigue of paid and volunteer personnel was raised as a situation that needed increased attention this season. This is supported by 69% of respondents to the Joint Operations, Incident Management and Safety Survey, who agreed or strongly agreed that fatigue was actively managed this season. These results however, showed a decline from the previously upward trend over the past 5 years, largely due to the DEPI respondents who felt fatigue was not actively managed in the 2012/13 season. Regions attempted to address CFA volunteers working all day in their normal jobs, then turning out for an incident, then returning to work the next day by rotating crews where possible and having pre-formed strike teams available in neighbouring Districts. Instances occurred where the DEPI fatigue management guideline and industrial arrangements impacted on operational

requirements, pushing out shift changeovers and requiring multiple or delayed briefings at shift commencement. Some survey respondents also felt that the shortage of personnel and long travel times between base camps and work locations contributed to fatigue. It was suggested that greater attention needs to be given to managing resources more effectively.

Table 13 - Summary of Issues – Personnel welfare

Issue	Comment	Action
Fatigue management	<p>Management of Fatigue required increased attention due to extent of fire season.</p> <p>Instances where DEPI fatigue management guidelines and industrial arrangements pushed out shift changeovers and required multiple or delayed briefings at shift commencement.</p>	<p>Fatigue management will be addressed as a key safety issue in the Preseason briefings and information prior to the 2013/14 FDP. It remains a responsibility of agency personnel at State, Regional and local levels to ensure effective compliance with specific agency fatigue policies and procedures.</p> <p>CFA is currently developing an agency wide Fatigue Management Policy for introduction, no later than the 2014/15 FDP</p> <p>DEPI will reinforce the correct application of the existing Fatigue Management guideline prior to the 2013/14 FDP.</p> <p>Review of SCC OHS advisor role underway.</p>

- **Aircraft**

Regional feedback received indicated that aircraft usage this year was as good if not better than previous years. The involvement of Regional Controllers in the decision making associated with strategic relocation of aircraft based on risk, progressively got better during the season and there was improved knowledge of aircraft at the Regional level. Regions have requested that a framework be developed to provide protocols and guidance on the relocation of aircraft including the factors to be considered, regional support arrangements required including personnel and expectations regarding backfilling.

Aircraft were regularly employed as part of aggressive initial attack and readiness planning for high FDI days was improved. It was raised however that many requests for aircraft were made on days of lower FDI days or late in the afternoon, when aviation roles and support arrangements were not required to be on immediate availability. This led to an increased pressure this year to dispatch tactical aircraft without an Air Attack Supervisor in place to manage firebombing, and in some instances this compromised the safety of operations.

Regions that had a Regional Aircraft Coordinator/Officer in place for readiness and response, found that local management of aircraft resources more coordinated. It was identified both at the State and Regional level, that more work is required to clarify roles and responsibilities of the numerous positions involved in managing aircraft resources, to assist in understanding the expectations, functions and relationships between the State and Regions. Greater awareness is also needed on the efficient and effective use of aircraft, and an appreciation of them as a finite and costly resource. Implementation of an evaluation and feedback mechanism was suggested as a way of informing this awareness program.

Loddon Mallee Region provided positive feedback regarding the pre-determined dispatch trial (of a Helitak) in CFA District 2 this season and there was interest from several other Regions on the analysis and outcome of the trial and would like the report distributed.

The potential of the new Forward Looking Infra Red camera technology in information gathering and mapping was demonstrated and well received in the field, with an acknowledgement that further work needs to be undertaken to ensure there is a structured approach to implementation and integration with all air and ground based information gathering systems and processes. The Infra Red Linescan aircraft was utilised extensively this season to provide information at the strategic level of incidents, however the analysis and interpretation of the data may be limited as it is no longer in the Planning and Situation Officer curriculum.

Cross border aircraft arrangements particularly availability and activation, were thought to be poorly understood and it has been requested to include information on these in the pre-season briefings for next season, and for a review of interstate liaison guidelines to occur.

State-wide capacity, availability and rostering of personnel in aviation roles (both airborne and ground support) was raised as an issue this season, and it was noted that many people worked a high number of hours this season potentially leading to fatigue and complacency. A state-wide strategic gap analysis process for aviation human resources was suggested, to inform agencies of the desired level of coverage and assist succession planning. There was also support for the development of a roster of state-wide Air Attack Supervisors to be positioned with or close to aircraft for enhanced readiness.

Table 14 - Summary of Issues – Aircraft

Issue	Comment	Action
Use	<p>Aircraft usage this year was as good if not better than previous years. Aircraft were regularly employed as part of aggressive initial attack and readiness planning for high FDI days was improved.</p> <p>Positive feedback regarding the pre-determined dispatch trial (of a Helitak) in CFA District 2 this season.</p> <p>The use of aircraft for information gathering and mapping was demonstrated and well received in the field, further work needs to be undertaken to ensure there is a structured approach to implementation and integration with all air and ground based information gathering systems and processes. Effectiveness of this information gathering inhibited as the analysis and no longer in the Planning and Situation Officer curriculum.</p>	<p>Aviation workshop held with recommendations to the Aviation Board considering predetermined dispatch expansion, Aerial intelligence gathering and 2013/14 aviation fleet configuration.</p> <p>A comprehensive report has been completed into the Predetermined Dispatch of Aircraft during the 2012/13 FDP. This will inform and assist in the continuous improvement of aircraft management in the future.</p> <p>The State Aircraft Unit is responsible for implementing a range of initiatives, as is the case after each FDP, aimed at continuous improvement in the overall management of aircraft resources throughout the state.</p> <p>Aircraft Briefings will be consolidated into the Regional Briefings commencing with the 2013/14 FDP.</p>
Planning, Protocols and Procedures	<p>Protocols and guidance on the relocation of aircraft including the factors to be considered, regional support arrangements required including personnel and expectations regarding backfilling.</p> <p>Awareness is also needed on the efficient and effective use of aircraft, and an appreciation of them as a finite and costly resource. The involvement of Regional Controllers in the decision making associated with strategic relocation of aircraft based on risk, progressively got better during the season and there was improved knowledge of aircraft at the Regional level.</p> <p>Cross border aircraft arrangements, particularly availability and activation, were thought to be poorly understood as were the interstate liaison guidelines.</p>	<p>The State Aircraft Unit is responsible for implementing a range of initiatives, as is the case after each FDP, aimed at continuous improvement in the overall management of aircraft resources throughout the state.</p> <p>Aircraft Briefings will be consolidated into the Regional Briefings commencing with the 2013/14 FDP.</p>
Roles	State-wide capacity, availability and rostering of personnel in aviation roles	The State Aircraft Unit is responsible for implementing a range of initiatives, as is the

Issue	Comment	Action
	(both airborne and ground support) was raised	<p>case after each FDP, aimed at continuous improvement in the overall management of aircraft resources throughout the state.</p> <p>Aviation rostering responsibilities being clarified, including State Air desk, AAS Support for Type 1 Aircraft and Regional rostering.</p> <p>Personnel management continues to evolve and improve through the input provided by field and aircraft personnel.</p> <p>Aircraft Briefings will be consolidated into the Regional Briefings commencing with the 2013/14 FDP.</p>

- **EMTs**

REMT debriefs all recognised the significant achievements that have been made in the past few years in terms of engagement, communications, collaborations and focus the key responsibilities of these teams. Our emergency management partners all recognised they feel far better informed throughout the FDP on the potential for activity driven by weather forecasts, existing fire activity and expectations of their respective organisations to be ready to provide input at this level, weather at Incident, Regional or State levels.

Some organisations reported that they have adopted many of the triggers for the REMT into their respective organisational planning whether that is day to day work or increasing capability on high risk days.

It was however noted that they, like fire agencies, suffer from the fatigue of a busy FDP and in some cases have a much more limited personnel resource pool to draw from requiring some to be involved in both Incident and REMTs simultaneously.

It was also identified that opportunities exist to improve the focus and operation of EMTs in particular the application of clear responsibilities at the 3 levels, recording and monitoring of actions and decisions through effective meeting practices and an increased understanding of what each agency brings to the team in terms of knowledge and capability.

The current Emergency Management Team Practice Note review will address many of these issues and provide clearer direction to the expectations and responsibilities of EMTs at the three key levels during emergencies.

Table 15 - Summary of Issues – EMTs

Issue	Comment	Action
Operation and understanding	<p>Significant achievements that have been made in the past few years in terms of engagement, communications, collaborations and focus the key responsibilities of these teams.</p> <p>Identified opportunities to improve the focus and operation of EMTs, in particular the application of clear responsibilities at each levels, recording and monitoring of actions and decisions through effective meeting practices and an increased</p>	<p>The operation and understanding of the roles and responsibilities of EMTs at incident, regional and state levels has improved significantly in the past few years.</p> <p>A review of the EMT Practice Note by the FSC and it's subsequent release prior to the 2013/14 FDP will address many of the existing uncertainties relating to other continuous improvement actions and initiative identified during 2013/14. Specifically the key focus of each IMT level, administrative expectations and general operations of these teams.</p>

Issue	Comment	Action
	understanding of what each agency brings to the team in terms of knowledge and capability.	EMT Practice Note 2009 revised and renamed EMT Arrangements 2013 following review by Multi Agency Working Group and Agency/Stakeholder input. Submitted to State Emergency Response Planning Committee for endorsement on 31 July 2013. Subject to endorsement - publication, distribution and electronic information presentation to be prepared.

- **Interstate deployment**

CFA, DEPI, MFB and VICSES were involved in deployments to both New South Wales and Tasmania throughout the FDP. The general feeling of all involved in these two key interstate deployments was that in the circumstances it went well with the exception of a small number of on ground logistic issues which form the basis for improvement initiatives for discussion with both interstate fire agencies.

A debrief of the management, planning and logistics personnel involved in these deployments identified the key success of the integrated teams. The primary opportunity for improvement identified by this group related to the development of a state, multi-agency interstate deployment plan that collects existing individual agency plans.

Table 16 - Summary of Issues – Interstate deployment

Issue	Comment	Action
Planning and Operation	Lack of documented protocols and planning documents detailing processes and procedures for interstate multi agency deployments.	A review of the interstate deployments during the 2013/14 FDP clearly identified the successes of using people from all agencies (including MFB and SES). A key observation related to a need for consistent policy and protocols developed ahead of any future deployment. Deployment Working Group has been established to develop and document single interstate and international deployment procedures and processes.

- **General**

Regions would like consideration to be given to allowing greater flexibility in the structure of the pre-season briefings, so that local topics could be included. The inclusion of relief and recovery was also requested. Feedback received also suggested that exercising for emergencies other than fire may further increase the level of engagement with partner agencies.

Documentation is required to provide coverage for an organisation using private property, or private landholder indemnity from damages or injury, when a decision is made to set up a staging area or base camp during an incident. This was experienced in the Grampians Region this year where a landowner requested an undertaking that they would not be liable for injury or damages while their land and facilities were being used.

It was suggested in one Region that consideration be given to establishing a single database between the agencies there, to capture, share and bring awareness to known community activities and events across the Region. This would include notification templates, engagement and education processes. This may be a beneficial development within and across other Regions.

After Action Reviews following campaign incidents need attention, due to Regions expressing concern at not being asked to provide feedback into incident reviews and debriefs where their resources were provided.

Table 17 - Summary of Issues – General

Issue	Comment	Action
Pre-season Briefings	Inclusion of local issues within the preseason briefings.	Opportunity for the inclusion of a an overview of local activity during the previous FDP and key local issues for the coming FDP is incorporated (if desired by local agency management) into briefing presentations at all agency levels.
Land holder liability	Documentation is required to provide coverage for an organisation using private property, or private landholder indemnity from damages or injury, when a decision is made to set up a staging area or base camp during an incident on private property.	Should this be directed to the legal groups of agencies or the joint State Logistics working group??
Activity and Event awareness	Multi agency to capture, share and bring awareness to known community activities and events across Regions.	<p>While no specific all agency activity database currently exists, some agencies currently maintain a comprehensive events list and ways for other agencies to complement this process will be developed.</p> <p>The State Control Centre also references the Events Calendar on the Victoria Online website.</p>

Joint Operations, Incident Management & Safety Survey

Survey Overview

As part of the State Debriefing process, the Joint Incident Management, Operations and Safety survey is designed to ask respondents about their own involvement in fire suppression over the 2012/13 Fire Season and any observations that they may have on key themes that have been identified this season.

The Survey originated following the 2003/04 fire season (previously known as the Post FDP Survey) and is used as an indicator of performance each year against the baseline of the 2003/04 fire season and now includes the involvement of the Fire Services Commissioner, MFB, VICSES and Victoria Police.

The survey attracts different levels of response each year, often prompted by periods of high levels of operational activity, such as was the case in 2012/13, and consequently in its current form anomalies in regard to some analysis of responses can occur. In particular the comparison by raw percentages each year may in fact show variations due to the number of respondents. This has been identified by the coordination team as a improvement opportunity for future years.

Survey Composition

A total of 190 surveys were completed.

The respondents comprised:

- 140 (73%) from the CFA
- 36 (19%) from the DEPI
- 11 (6%) from the VICSES
- 2 (1%) from the Fire Services Commissioner
- 1 (1%) from Victoria Police

With the exception of the Division Commander role, the survey respondents represented the full spectrum of senior incident management roles, including Control, Operations, Planning, Logistics, Safety and Information.

Some general observations around the respondent characteristics include:

- the 50-59 age range represented 40% of all respondents
- 83% of respondents were male
- 28% of respondents remembered having completed this survey in previous years.

Table 18 - Have you completed this survey in previous years?

Agency:	Yes	No	Don't Remember
CFA	38	66	36
DEPI	13	10	13
SES	2	8	1
Victoria Police	0	1	0
FSC	1	0	1
TOTAL	54	85	51

Figures 6, 7 and 8 provide more detail on the characteristics of the survey respondents by agency.

Figure 6: Age

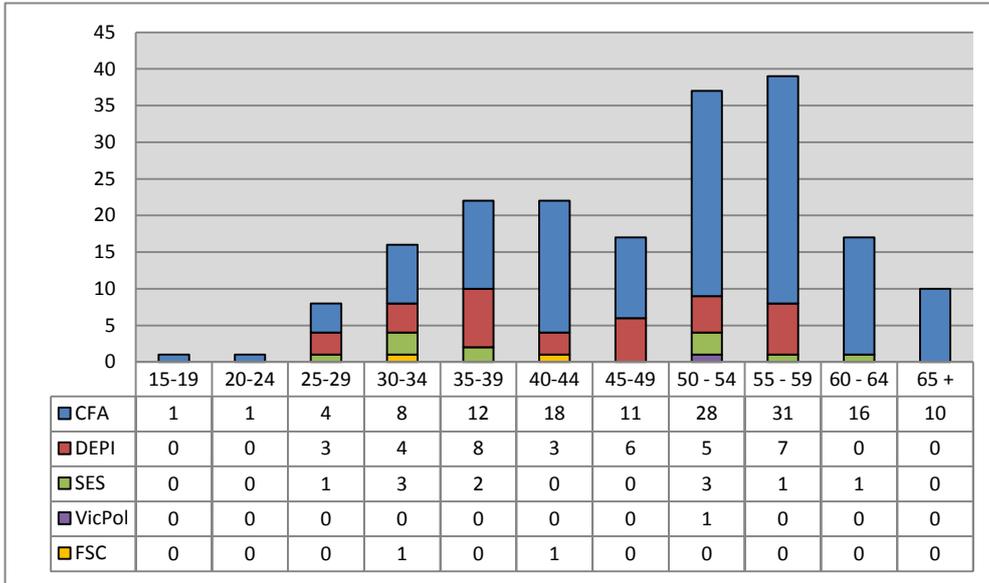


Figure 7: Gender

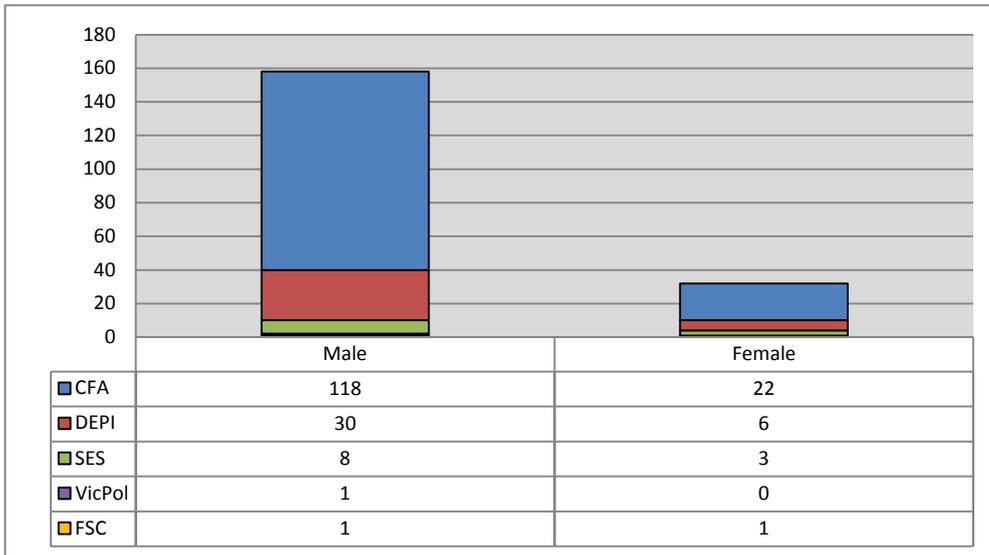
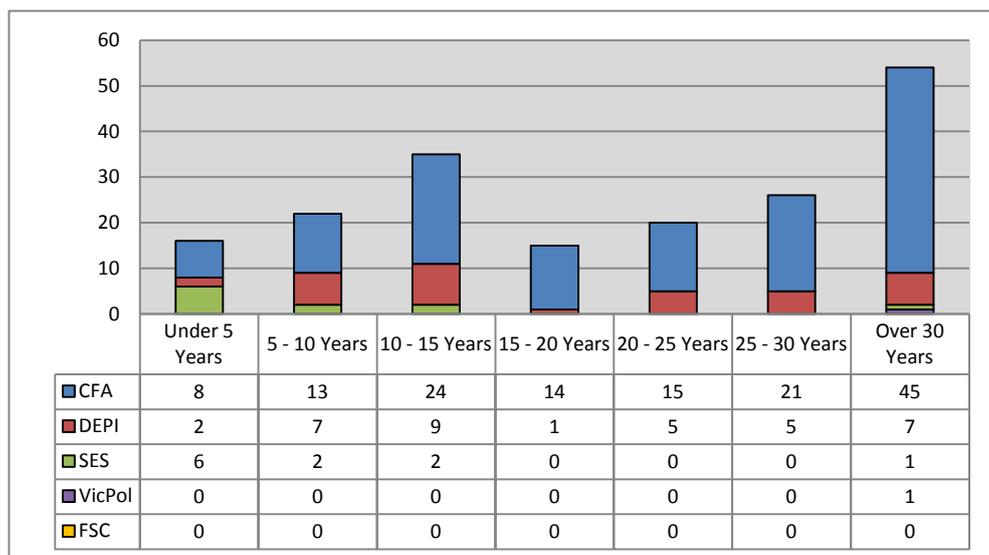


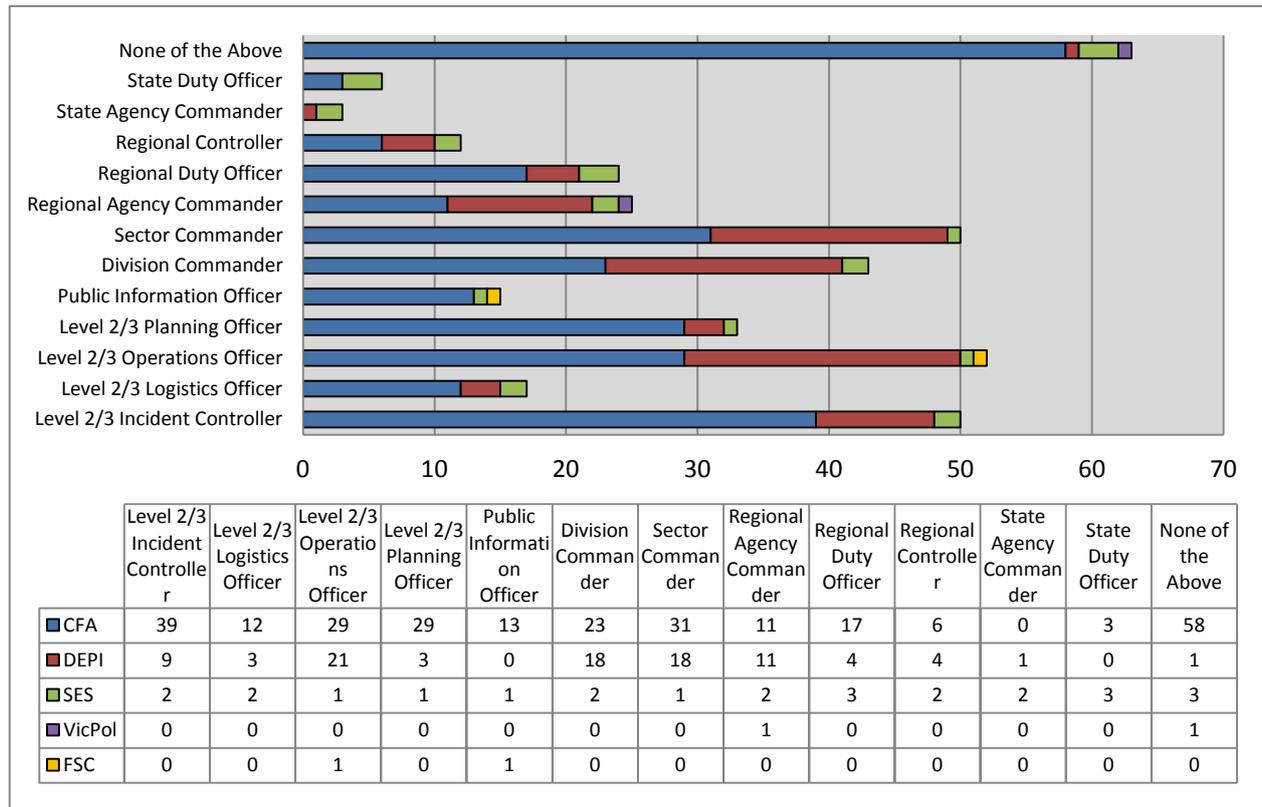
Figure 8: Length of Service with Your Agency



Respondent Roles

Respondent roles and incident experience for the 2012/13 season are illustrated in Figures 9 and 10.

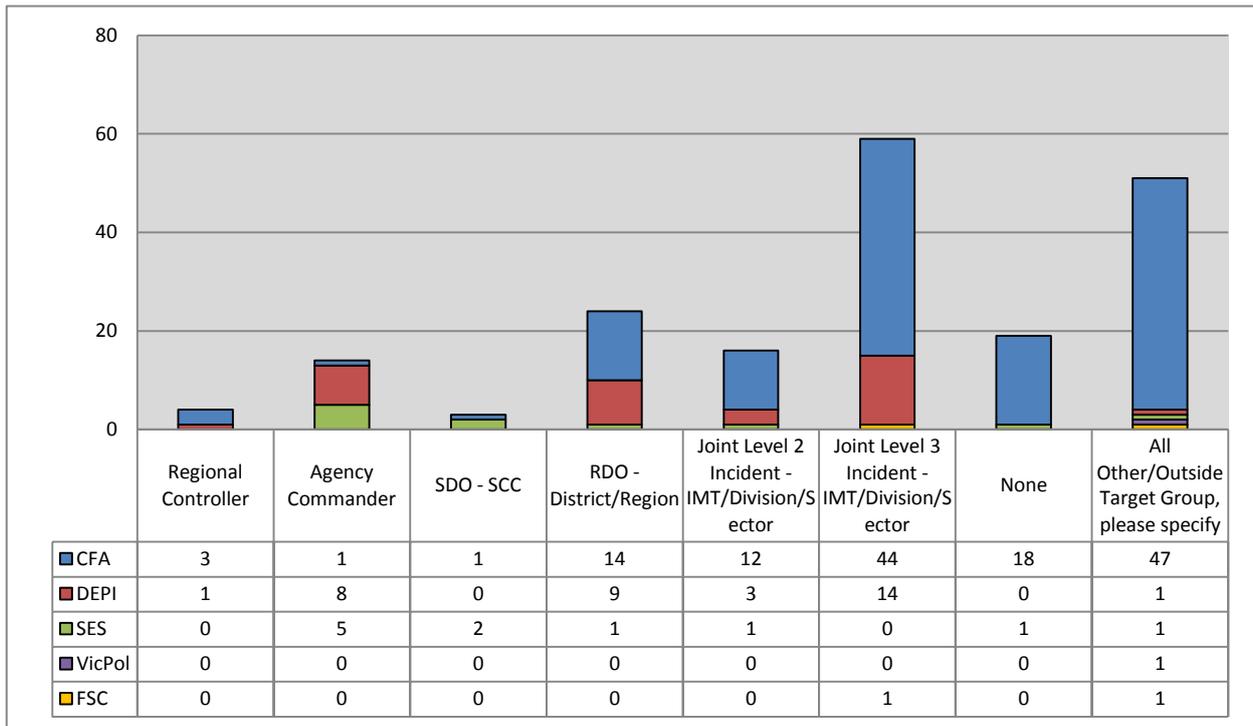
Figure 9: Please select the roles you were 'Endorsed' to perform during the 2012/13 Fire Season



In addition to the prescribed roles in the survey, other roles held by respondents who selected "None of the above" included.

- Firefighter/volunteer firefighter
- Executive Officer
- Management Support
- Mapping Officer
- Situation Officer
- Crew Leader
- Deputy Incident Controller
- Incident Agency Commander
- Administrative Support
- Training Officer
- Facility Manager
- Logistics Officer
- Air Radio Operator
- Fire Behaviour Analyst
- Strike Team Leader
- Staging Area Manager
- Safety Officer
- Aircraft Officer
- Local Incident Controller
- Warnings and Advice Officer
- Beeac DGO
- SEMAT Leader

Figure 10: Please indicate your Primary Level of participation during the 2012/2013 Fire Season.



All Other/Outside Target groups included:

- Public Information Officer
- Executive Officer
- Crew Leader
- Firefighter
- Group Officer
- Management Support
- State Control Centre Duty Manager
- Brigade Duty Officer

Pre-Season Information

Figures 11 and 12, illustrate by agency, whether the respondents received pre-season information, and how they received this information.

The vast majority of respondents (93%) received or had access to pre-season information, with:

- 63% of respondents having received this information from attending a joint pre-season briefing,
- 33% of respondents having received this information from attending an agency briefing,
- 55% of respondents having received this information from reading pre-season agency literature, and
- 33% of respondents having received this information from reading pre-season information on the intranet, internet or Fireweb.

108 (57%) respondents received pre-season information from more than one source.

Figure 11: Did you receive or access pre-season information? (i.e. Operations Updates, Pre-Season Briefings, etc)

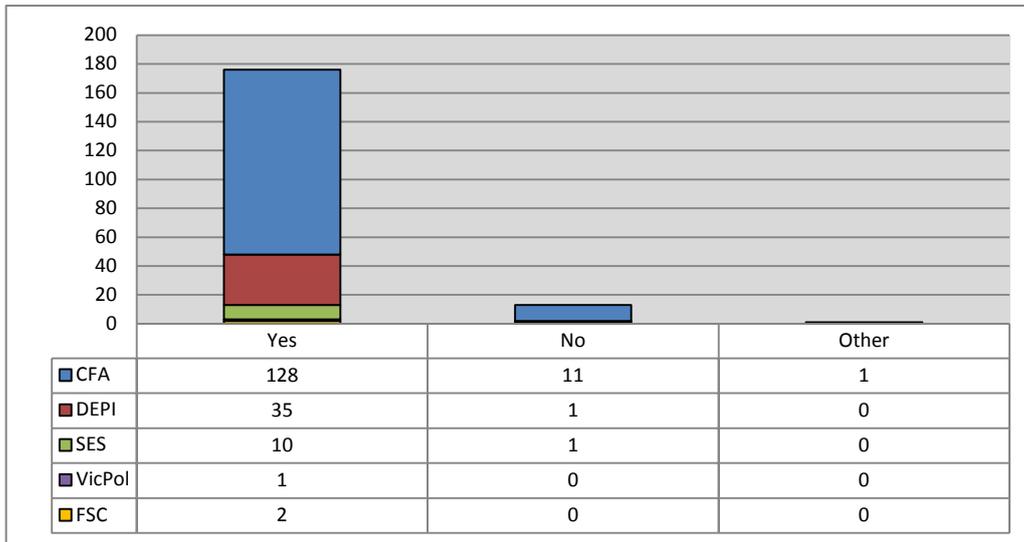


Figure 12: How did you receive this information? (Multi Selection)

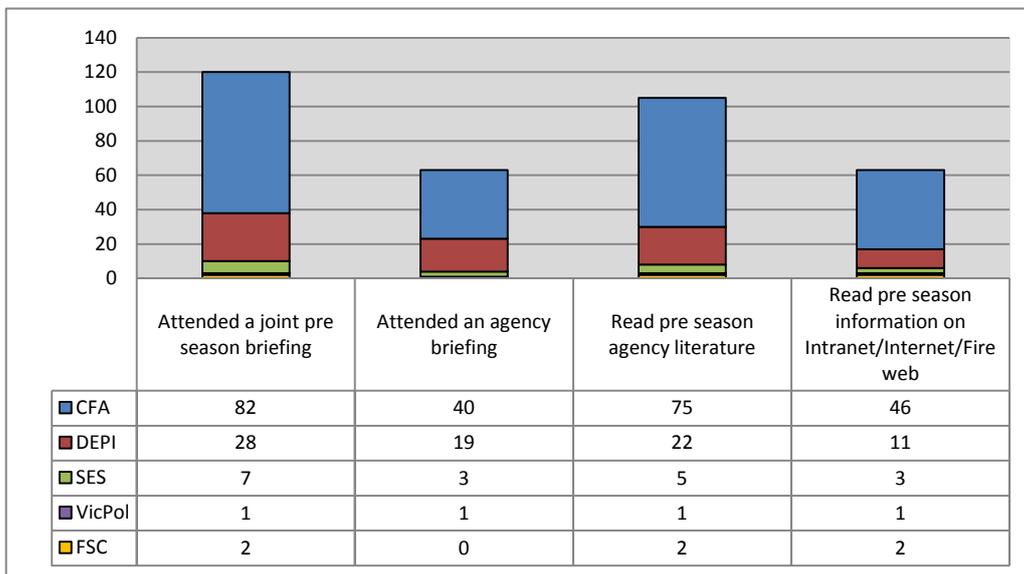
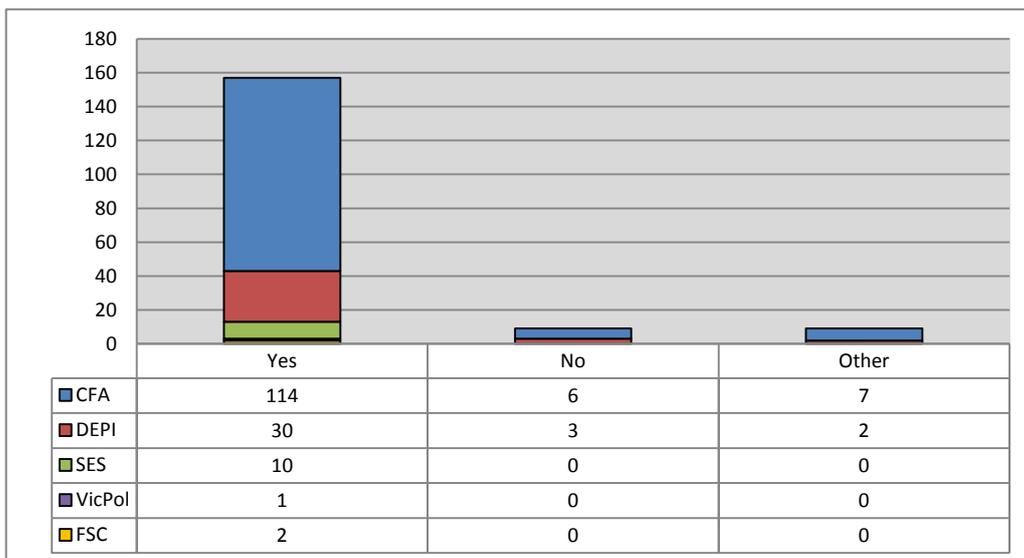


Figure 13: In general, I found this information to be clear?



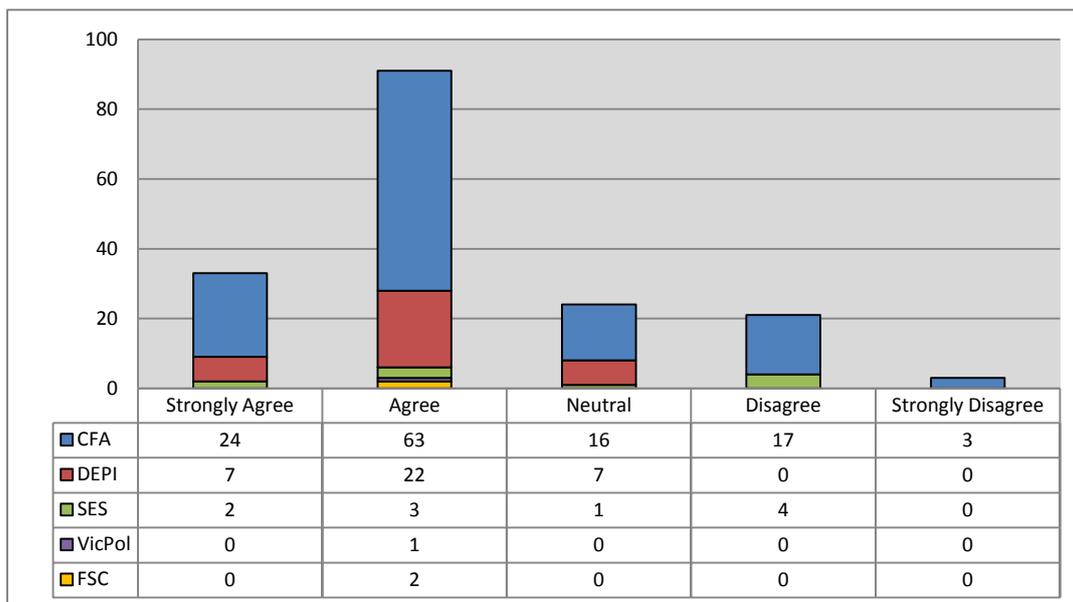
As shown in the Figure 13, almost 90% of respondents found the pre-season information to be clear. The reasons provided by respondents who did not find the information to be clear included that:

- the information was too long and too operations focused,
- the weather information on pages could be made clearer, and
- there needs to be more District focus.

Joint Operations

172 respondents provided their level of agreement with the statement that “Joint operations were genuinely integrated”. Figure 14 shows that almost three quarters (72%) of respondents agreed or strongly agreed with the statement.

Figure 14: Joint Operations were genuinely integrated.



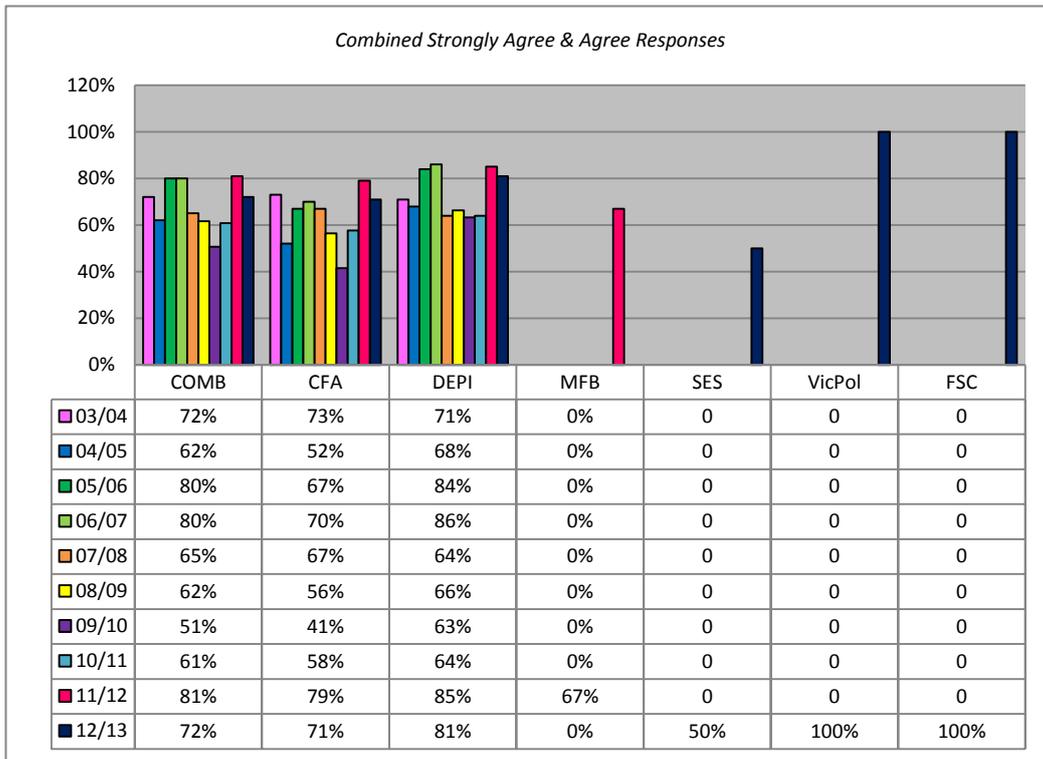
14% of respondents disagreed or strongly disagreed with the statement and 14% of respondents neither agreed nor disagreed. The respondents who disagreed or were neutral were invited to provide comments. The key comments provided by these respondents as to why genuine integration was not achieved included:

- Culture and individual personalities (n=8),
- Lack of familiarity and interoperability of systems and processes (n=7),
- Communication issues (n=3), and
- Uncertainty around roles and responsibilities and instances where personnel were placed in roles above their skill levels (n=3).

When compared to previous years' results (as shown in Figure 15), the percentage of total respondents who agreed that joint operations were genuinely integrated has not continued the upward trend since 2009/10. However, the level of agreement in 2012/13 is still greater than the 10-year average of 69%.

The percentage of both CFA and DEPI respondents who agreed that joint operations were genuinely integrated has decreased as compared to 2011/12.

Figure 15: Joint Operations were genuinely integrated (10 Year Trend)

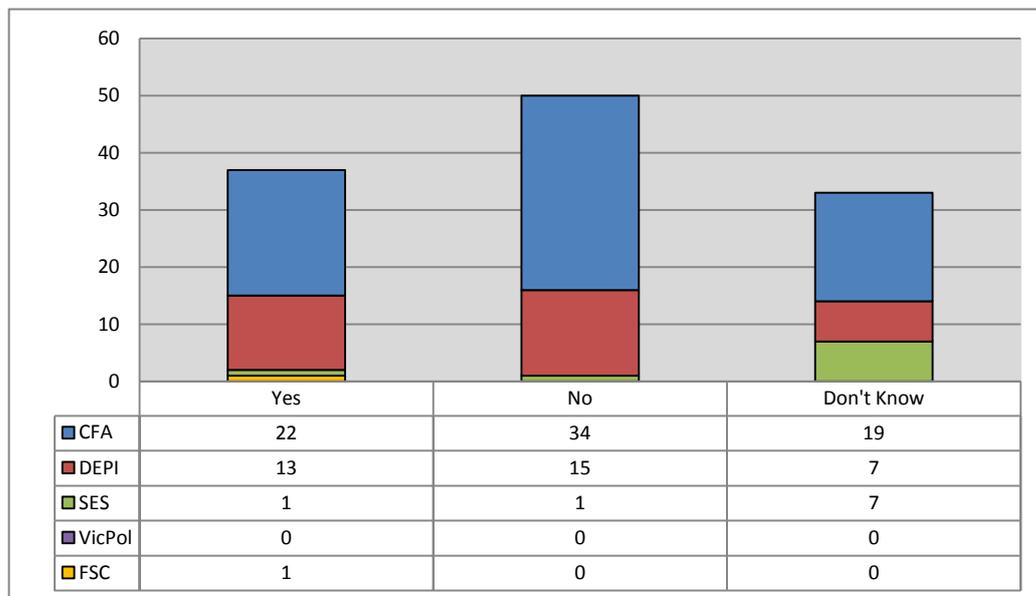


Incident Management Teams

When asked “Are you aware of pre-planned IMT levels as identified in SOP J2.03 not being achieved?”:

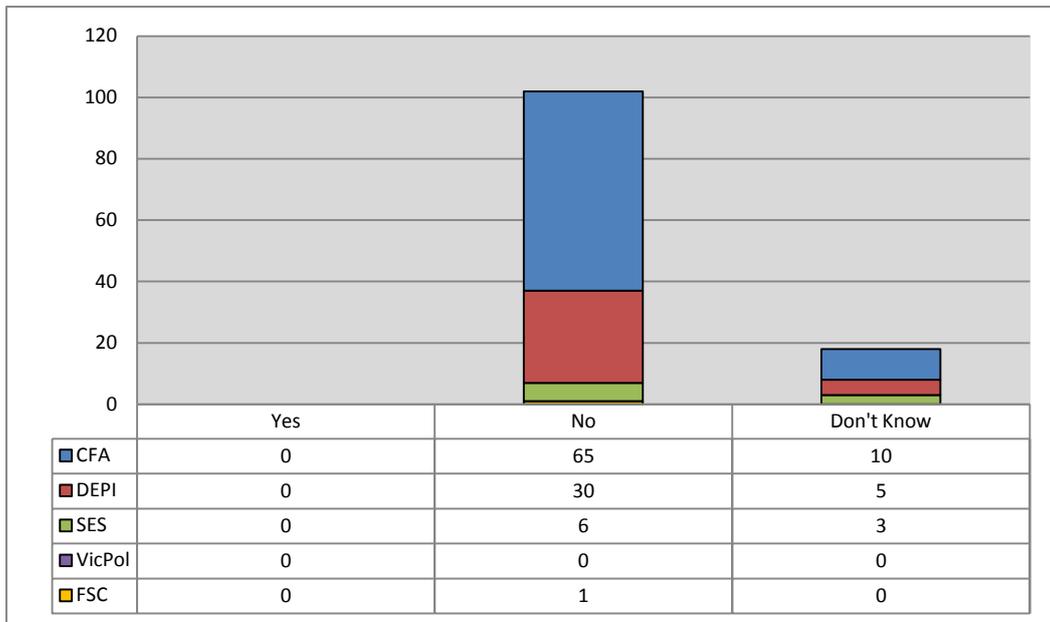
- 31% of respondents answered yes, and
- 42% of respondents answered no.

Figure 16: Are you aware of pre-planned IMT levels as identified in SOP J2.03 not being achieved?



It is positive to note that all respondents believed Level 3 incident(s) were being managed out of designated Level 3 ICCs as shown in Figure 17.

Figure 17: Are you aware of any Level 3 incidents being managed out of sites that were NOT designated Level 3 ICCs?



However, Figures 18 and 19 that illustrate that:

- 11% of respondents did believe Level 3 incident management team(s) were not being led by an endorsed Level 3 Incident Controller, and
- 10% of respondents indicated that no safety officer was appointed at the Level 3 incident they attended.

Please note the results may be skewed due to multiple reports of the same incident.

Figure 18: Are you aware of any Level 3 incident management teams NOT being led by an endorsed Level 3 Incident Controller?

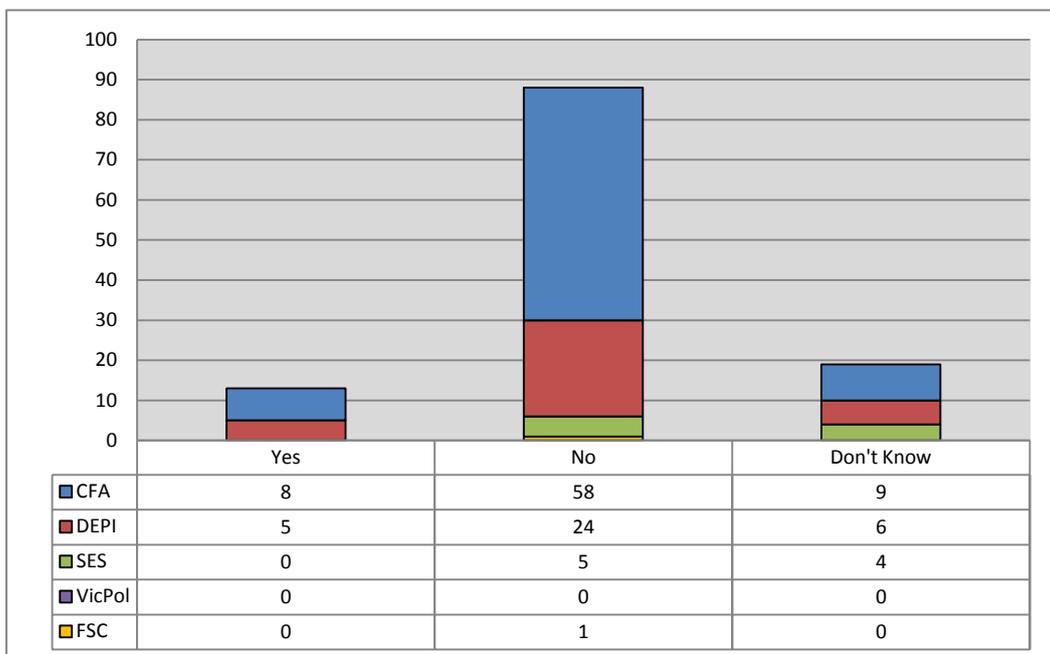


Figure 19: Did you attend any Level 3 incidents where NO Safety Officer was appointed?

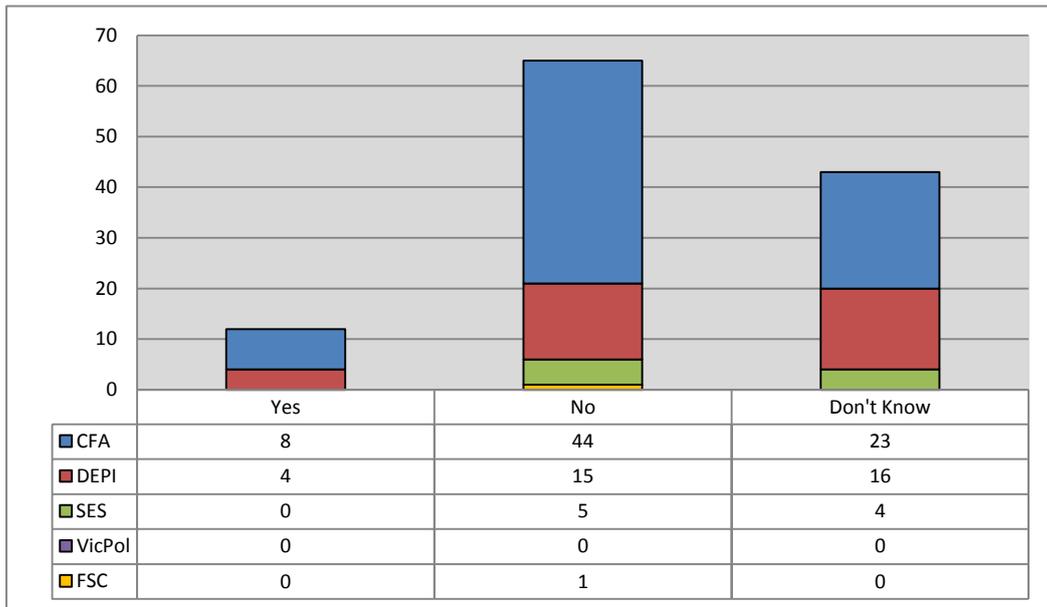
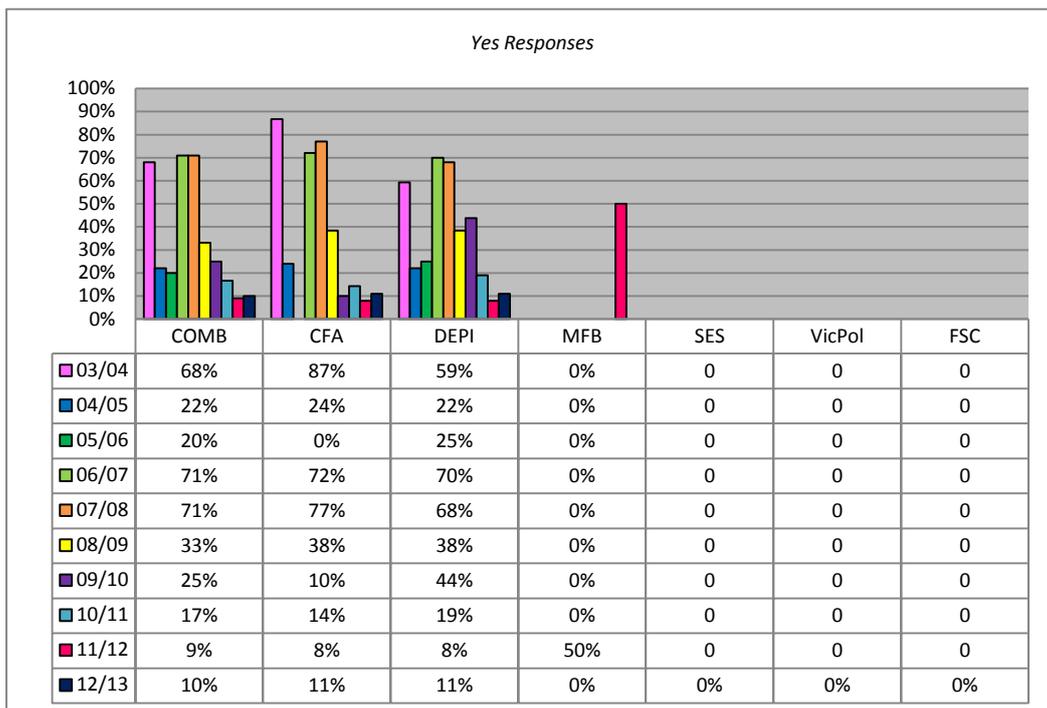


Figure 20 shows the responses by agency and totals for the ten-year period up to and including 2012/13. The results are reasonably consistent with previous year's, with both CFA and DEPI showing slight increases (8% to 11%) in the percentage of respondents who attended Level 3 incident(s) where no Safety Officer was appointed.

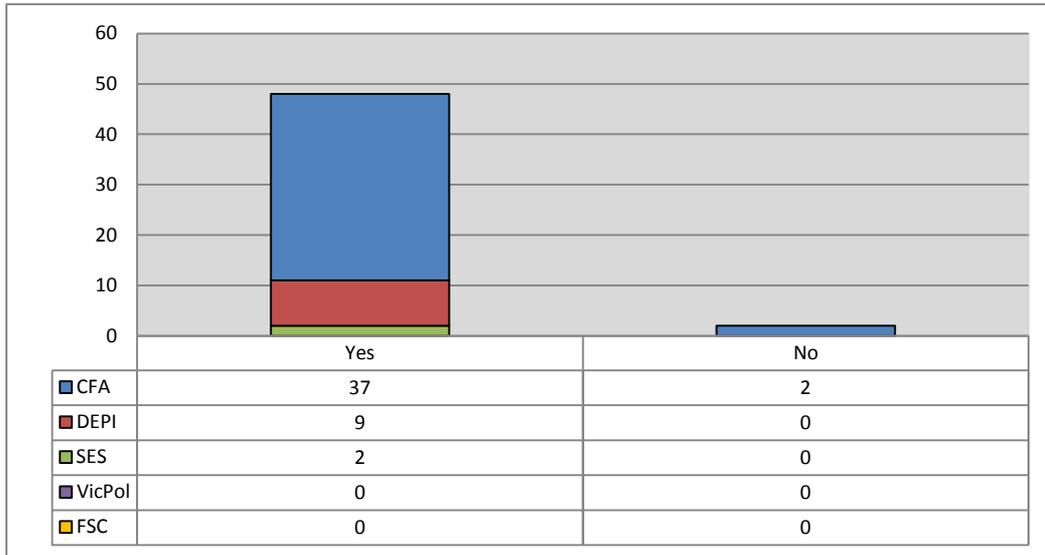
Figure 20: Did you attend any Level 3 incidents where NO Safety Officer was appointed?



Warnings and Advice

The vast majority of respondents (96%) indicated they were confident in their understanding of the Warnings and Advice levels as shown in Figure 21.

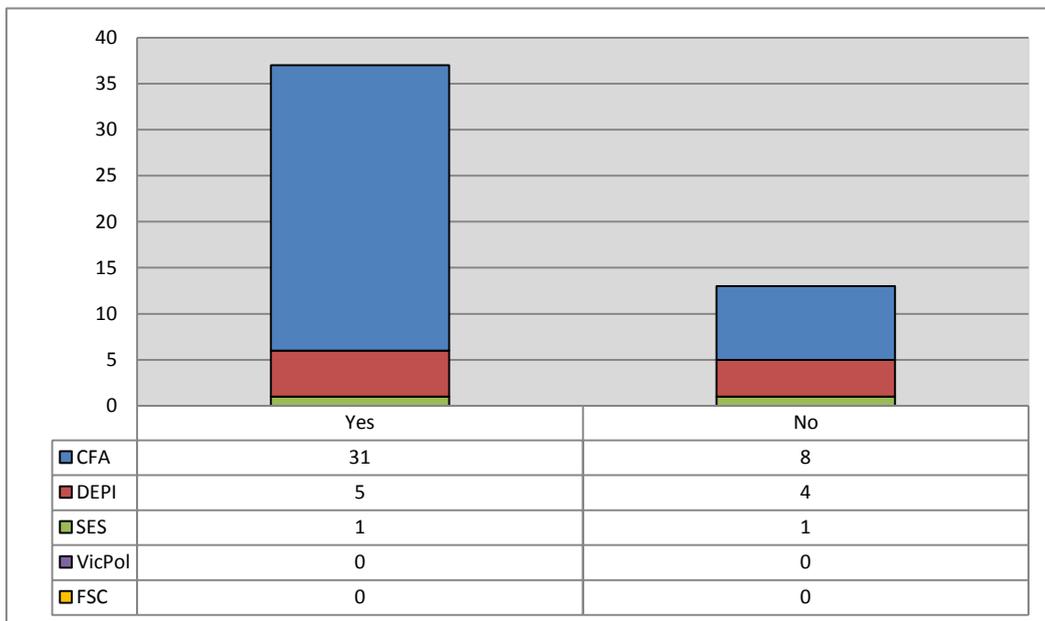
Figure 21: Are you confident in your understanding of the Warnings and Advice levels?



The two respondents who indicated that they were not confident in their understanding of the Warnings and Advice levels are both endorsed CFA Level 2/3 Incident Controllers.

Figure 22 shows that nearly three quarters of respondents (74%) of respondents felt that the Public Information Section (PIS) responded efficiently/effectively during incidents

Figure 22: Did you feel that the Public Information section responded efficiently/effectively during incidents?



4 out of 5 DEPI respondents felt the PIS did not respond efficiently/effectively during incidents. Their comments included:

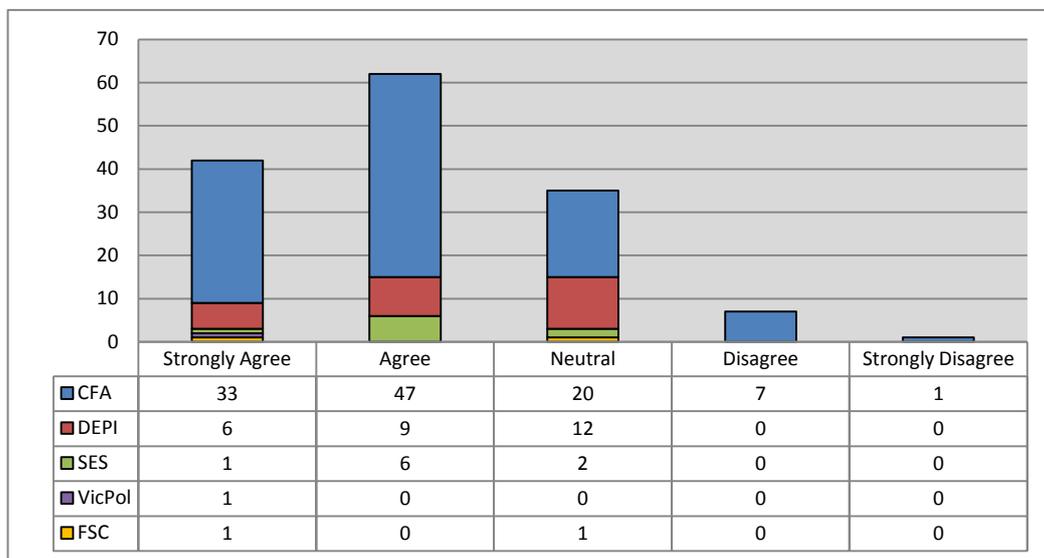
- *“The system as currently exists is too inflexible to work properly. Text is too specific, and options aren’t variable enough.”*
- *“Too much information was provided. The information at the bottom of the Advice is too much and Public Broadcasters spend more time reading out the affects of smoke and web sites and all the other stuff rather than where the fire is and who will be impacted.”*

- “The systems and templates being used are internally inconsistent, inflexible and for the most part confusing and overdone. The whole process needs a complete review, and the focus put on the consumer, not our personal or organisational liability.”
- “More specific info required for non-English speaking communities. Often, too much information is sent out that it becomes ineffectual due to the lack of clarity”
- Comments from other agency respondents included that:
 - the current systems are too slow, especially during the early stages of a fire where information is critical, and
 - messages should be prioritised and include only key information that is composed of clear language.

Information Flow

Figure 23 shows that 70% of respondents either agreed or strongly agreed that IMTs actively sought information from the fireground. All eight respondents who disagreed or strongly disagreed that IMTs actively sought information from the fireground were from CFA.

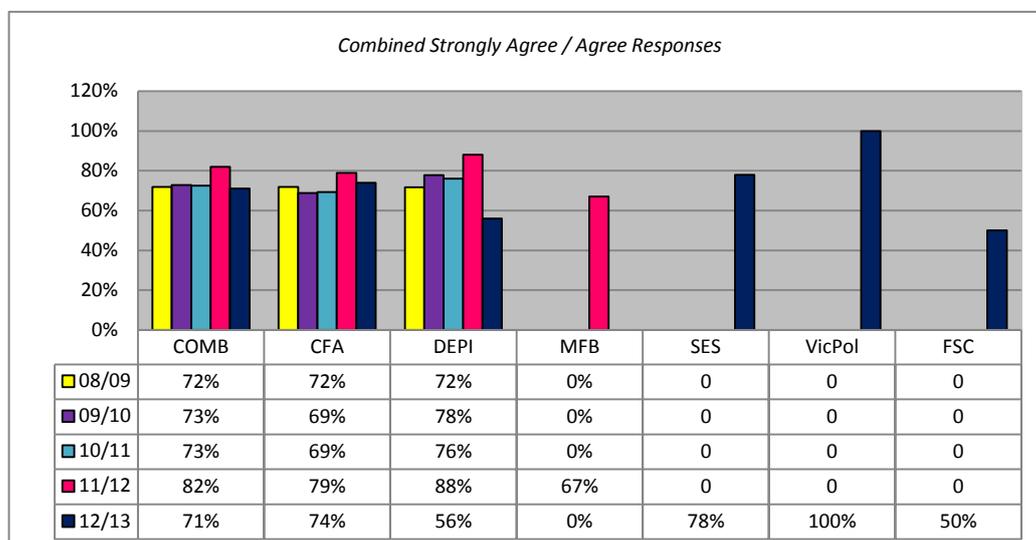
Figure 23: In general, IMT's actively sought information from the fireground.



The trend data for respondents who agreed with the statement “In general, IMTs actively sought information from the fireground” is shown in Figure 24.

As compared to the 2011/12 fire season, there has been a significant reduction (88% to 55%) in the percentage of DEPI respondents who felt IMTs actively sought information from the fireground.

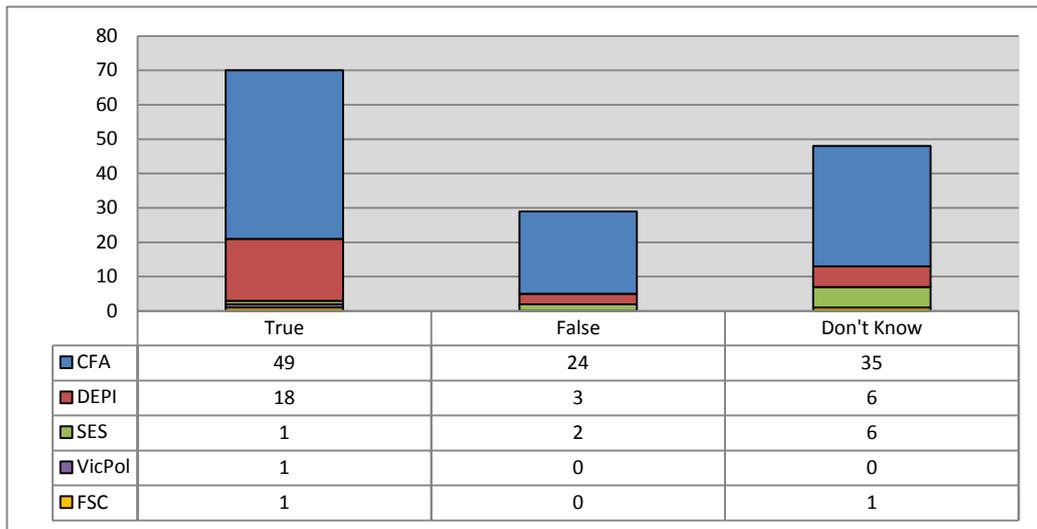
Figure 24: In general, IMT's actively sought information from the fireground.



In relation to the timeliness of information flow from the fireground to the Incident Control Centre (ICC):

- 47% of respondents felt the information flow was timely,
- 20% of respondents did not believe the information flow was timely, and
- 33% did not know whether the information flow was timely.

Figure 25: The information flow from the fireground to the Incident Control Centre was timely.

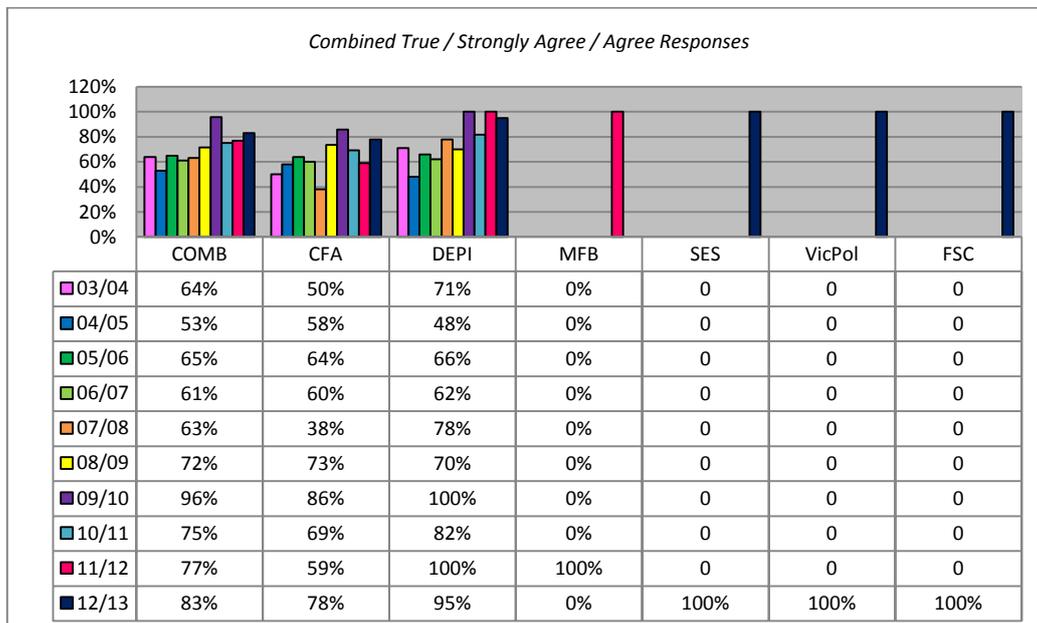


The key qualitative comment from respondents who answered “False” was that the information flow needed to be more timely and of a better quality. This is because delayed and poor quality information would lead to out-dated and possibly inaccurate messaging to the public.

Other comments from respondents included:

- *“Seems to be a general problem in both Victoria and interstate. We need to drive a culture change that ensures field personnel recognise the vital role they play in the flow of information to the IMT.”*
- *“L1 controllers still appeared uncertain of the protocol for L1 to L2 handover. Radio procedure is an issue. Reporting formats is an issue. Understanding the need to inform higher is lacking in the less practiced brigades and is evident when they leave the familiar VICFIRE relationship.”*
- *“There is still room for improvement in this area in particular relaying information back for the issuing of Warnings. More training and support for on ground IC is required.”*

Figure 26: The information flow from the fireground to the Incident Control Centre was timely.



As compared to previous years' results (as shown in Figure 26), the overall perception that information flow from the fireground to the ICC was timely has generally trended upwards since 2003/04.

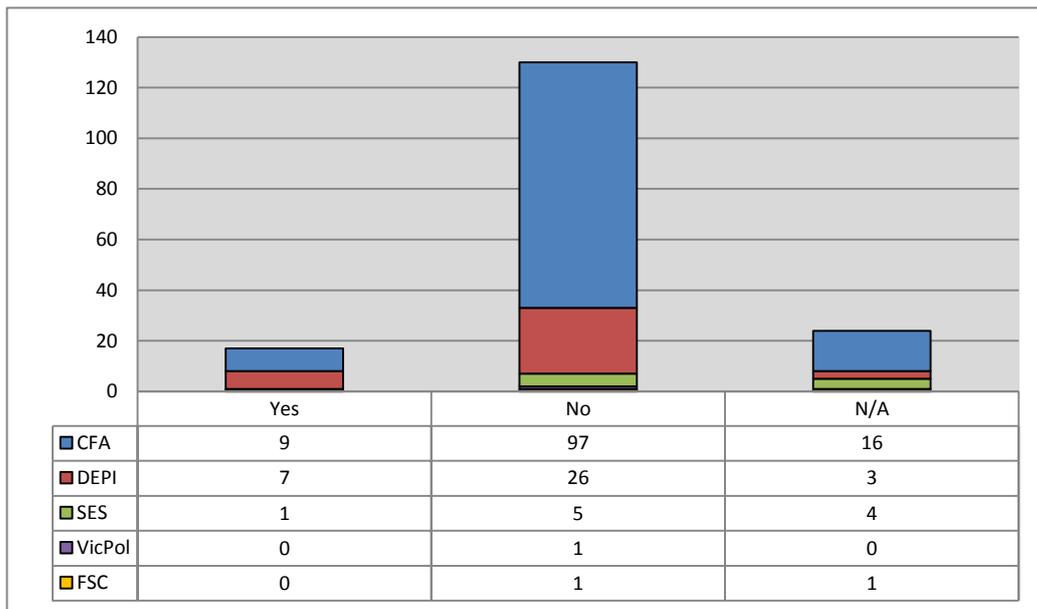
As compared to 2011/12, there has been a significant increase (59% to 78%) in the percentage of CFA respondents who felt timely information flow from the fireground to the ICC was achieved.

Briefings

In relation to briefings, respondents were asked: "Were there any shifts at Level 2 or Level 3 incidents you attended where you DID NOT receive a briefing?"

10% of respondents indicated that they did not receive a briefing at a Level 2 or Level 3 incident shift – as shown in Figure 27. Almost 20% (7 out of 36) of DEPI respondents indicated that they did not receive a briefing.

Figure 27: Were there any shifts at Level 2 or Level 3 incidents you attended where you DID NOT receive a briefing?



Responses to several other briefing related questions are illustrated in Figures 28 to 30.

Figure 28: Was the SMEACS format utilised for briefings?

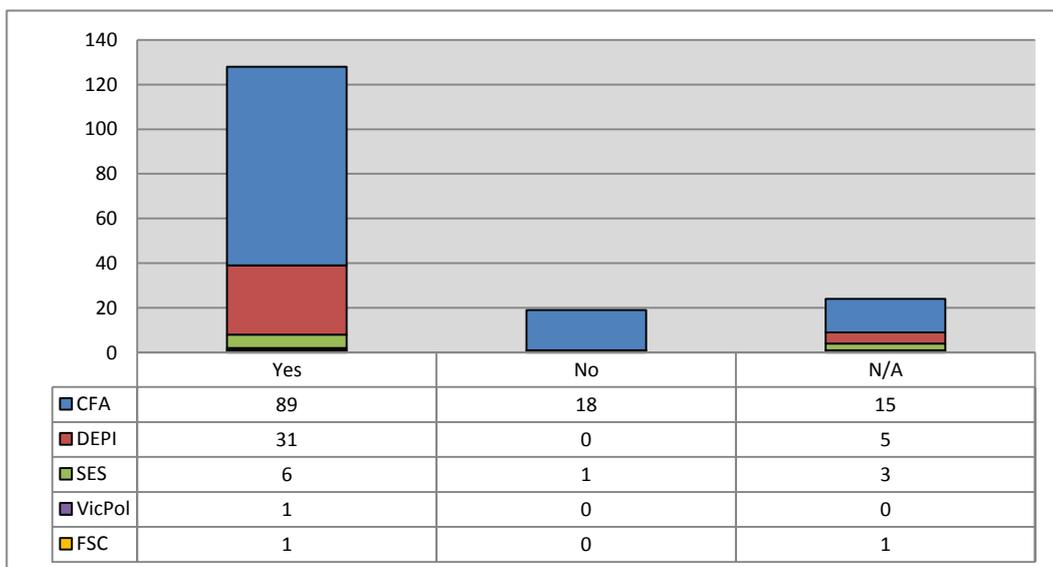


Figure 29: In general, briefings adequately prepared me for my experience during the shift.

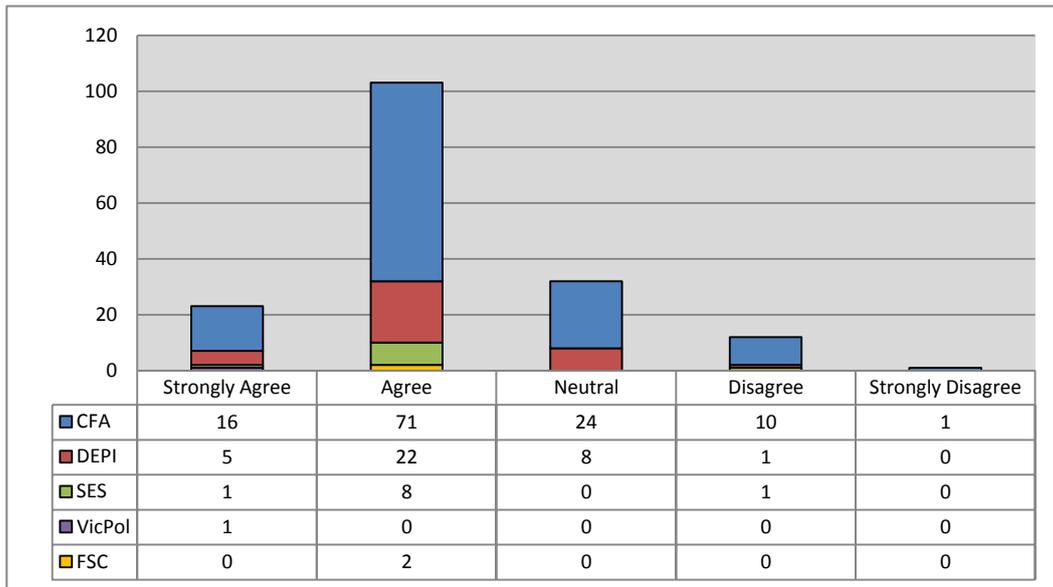
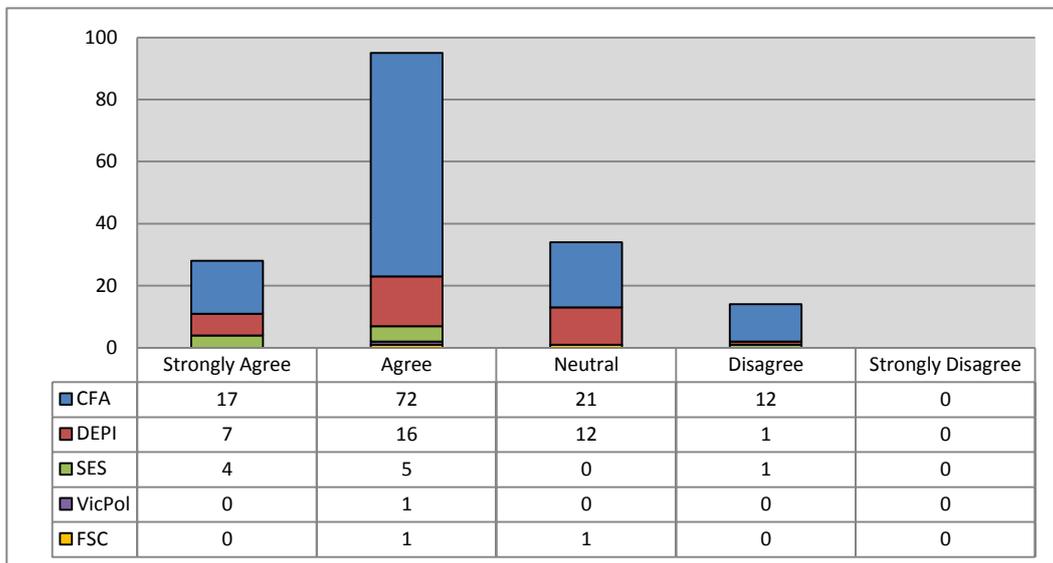


Figure 30: In general, briefings were delivered efficiently.



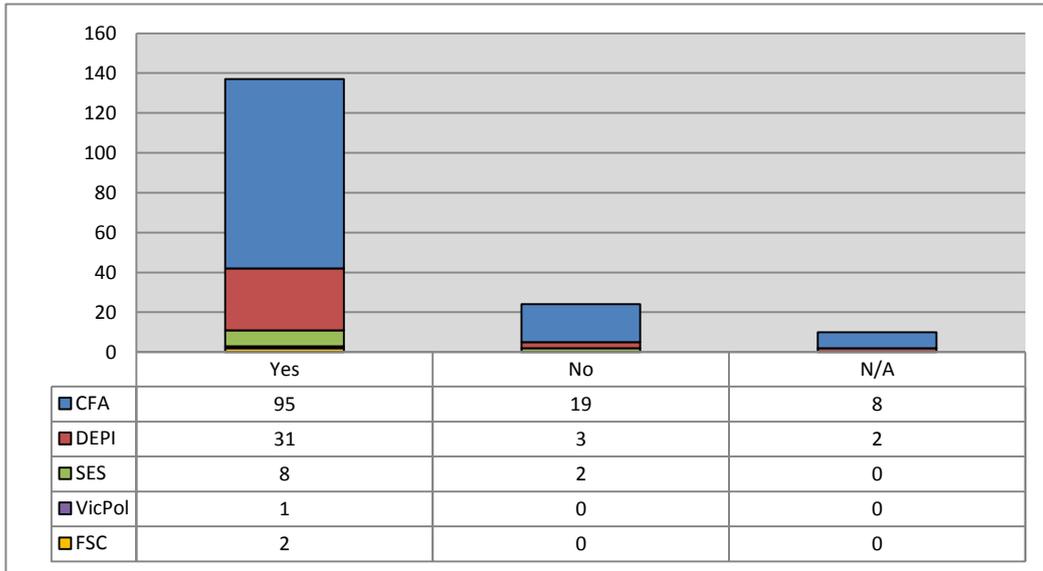
Respondents were subsequently asked whether, overall, they were satisfied with the briefings received. The majority of respondents (80%) were satisfied as shown in Figure 31.

Respondents who answered “No” were invited to provide some qualitative comments.

The main reasons for respondents’ lack of overall satisfaction with the briefings received were:

- Poor handover and the briefings were often ad hoc and did not occur regularly enough (n=4),
- Some briefings included incorrect/incomplete information and used poor maps (n=2), and
- Some briefings were too long and too repetitive (n=2).

Figure 31: Overall I was satisfied with the briefings received.



Local Knowledge

83% of respondents, where this question was applicable, had adequate access to local knowledge. 15 out of the 16 respondents who did not have adequate access to local knowledge were from CFA.

Figure 32: If you were part of an away crew, did you have adequate access to local knowledge?

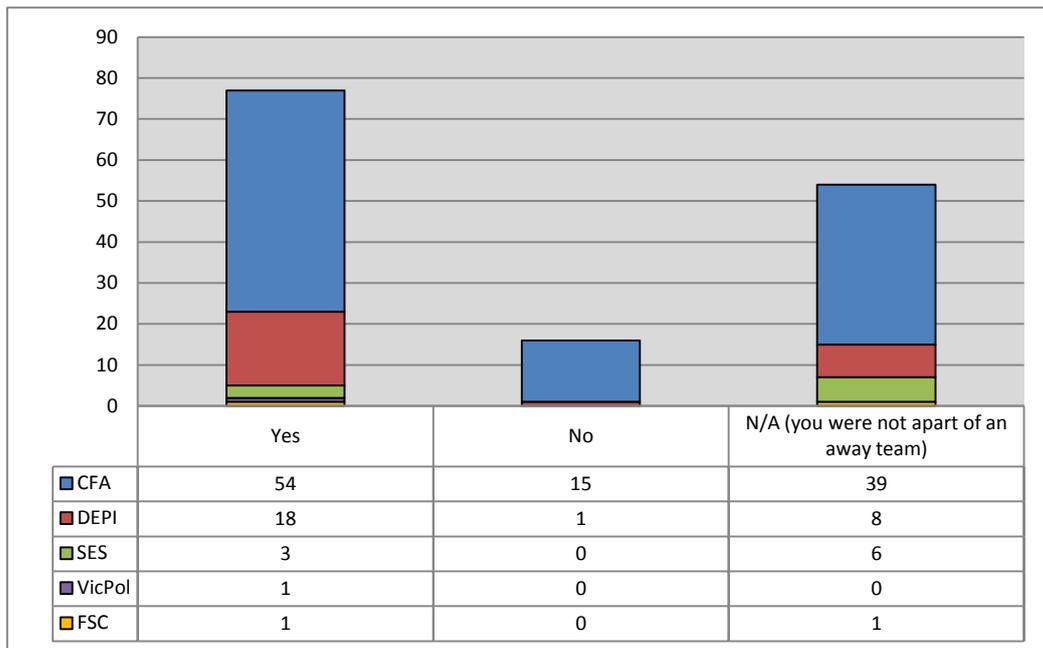
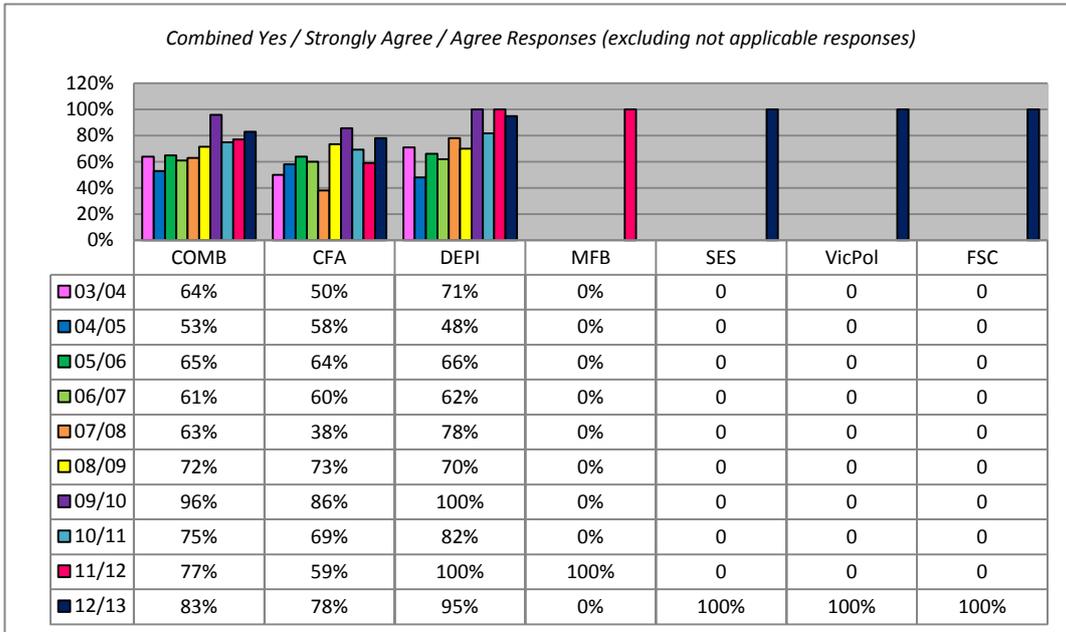


Figure 33 shows the responses by agency and totals for the ten-year period up to and including 2012/13. The general upward trend since 2010/11 has continued into 2012/13, with 6% increase in the percentage of respondents who had adequate access to local knowledge compared to 2011/12.

Significant improvement (59% to 78%) in local access as was indicated by CFA respondents in 2012/13 as compared to 2011/12.

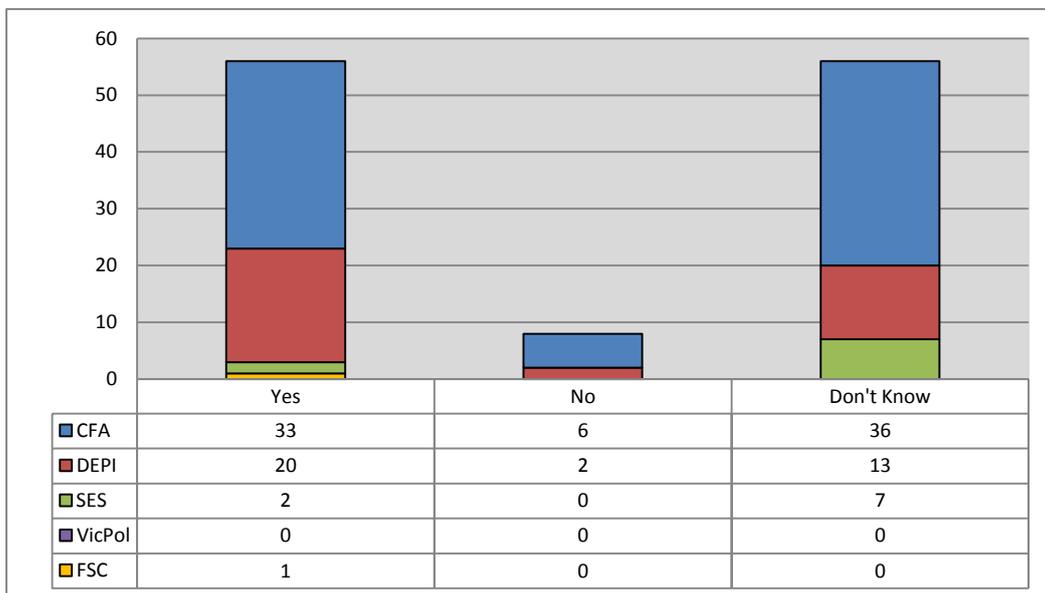
Figure 33: If you were a part of an away crew, did you have adequate access to local knowledge?



Respondents were asked whether the provision of local knowledge was actively planned for when away crews were received.

For those respondents who were in a position to answer this question, 88% (56 out of 64) of respondents felt that the provision of local knowledge was actively planned for as shown in Figure 34.

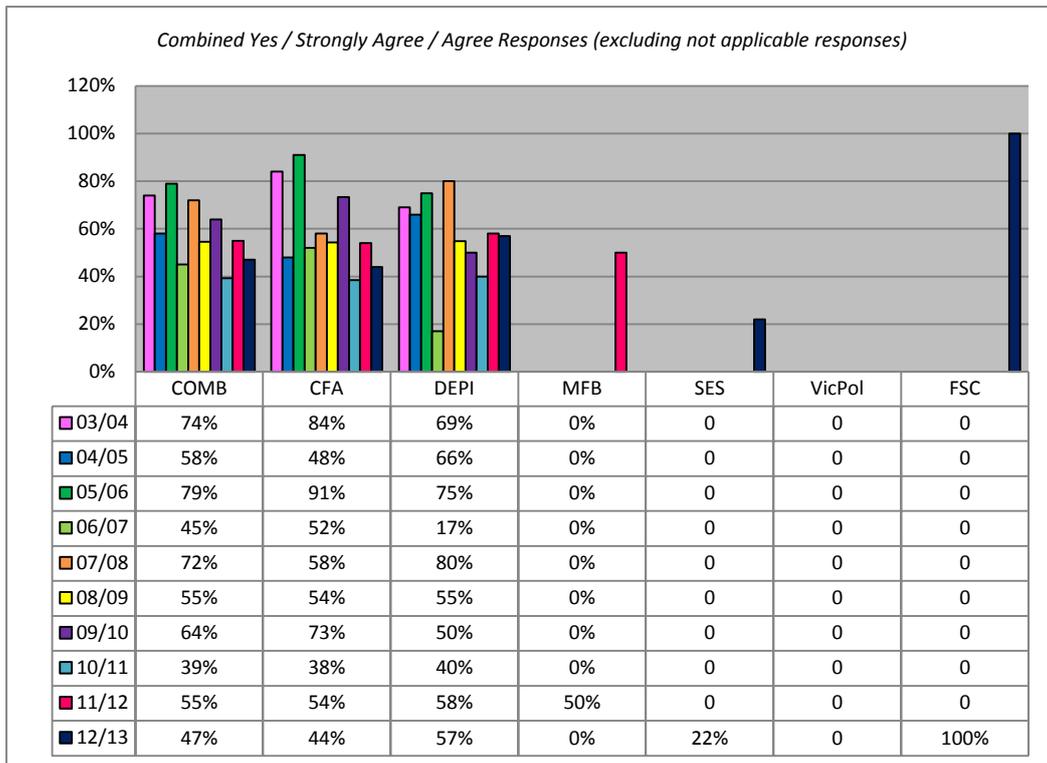
Figure 34: In general, was the provision of local knowledge actively planned for when away crews were received?



The qualitative comments from the respondents who answered “No” to the above question indicated that these respondents may have interpreted the question to be asking whether local knowledge was actually provided, rather than planned for.

The trend data (since 2003/04) for the planned provision of local knowledge is shown in Figure 35.

Figure 35: In general, was the provision of local knowledge actively planned for when away crews were received?

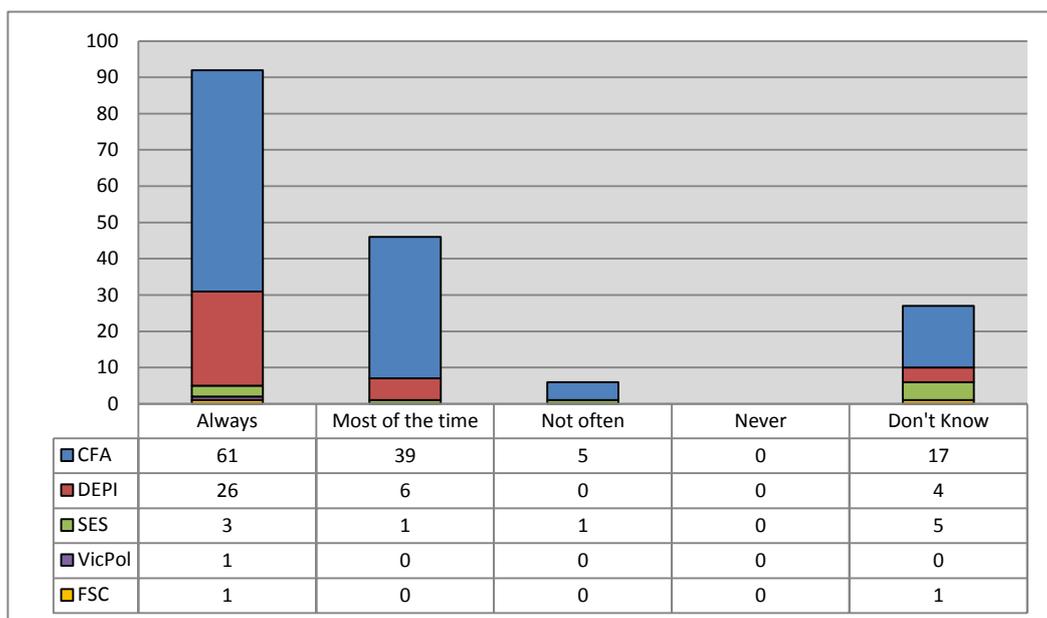


Over the ten-year period, there has been a broad downward trend in the respondents' perception that the provision of local knowledge was being planned for. The 2012/13 results have followed the general trend, with a decrease in the percentage of both CFA (from 54% to 44%) and DEPI (from 58% to 57%) respondents who felt the provision of local knowledge was actively planned for.

Communications Plans

Overall, just over half (54%) of respondents indicated that in their experience, Communications Plans were in place at Level 2 and Level 3 incident(s) that they attended. 36% of CFA respondents (44 out of 122) believed that Communication plans were not always in place.

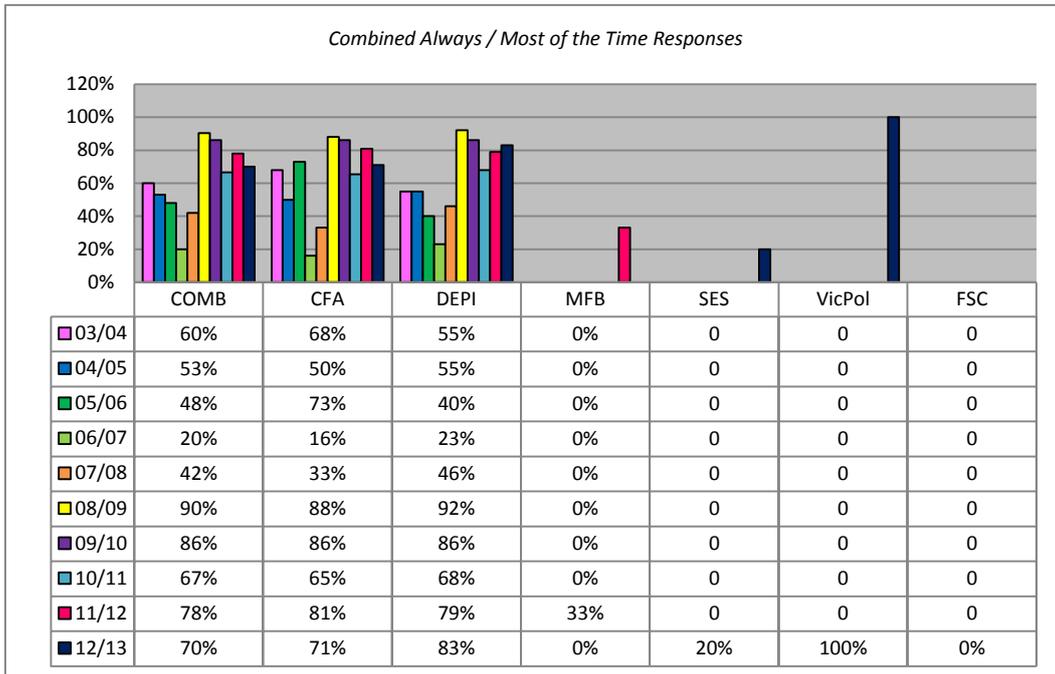
Figure 36: In your experience, were Communication Plans in place at Level 2 and Level 3 incidents you attended?



The two main reasons as to why Communication Plans were not in place, as provided by respondents, were:

- Interoperability issues – for example, agencies using different radios and frequencies (n=6), and
- Communication Plans not being in place during the early stages of fires (n=5).

Figure 37: In your opinion, did Agency fireground personnel adhere to Communication Plans?



As compared to the previous fire season, Figure 37 illustrates that there has been a minor reduction in the percentage of respondents who felt Agency fireground personnel adhered to Communication Plans.

The trend results differed between the two fire agencies. Compared to 2011/12:

- there has been a reduction in the percentage of CFA respondents (81% to 71%) who felt fireground personnel adhered to Communication Plans, and
- there has been a 4% increase in the percentage of DEPI respondents (79% to 83%) who felt fireground personnel adhered to Communication Plans.

Figure 38: In your opinion, did Agency fireground personnel adhere to Communication Plans?

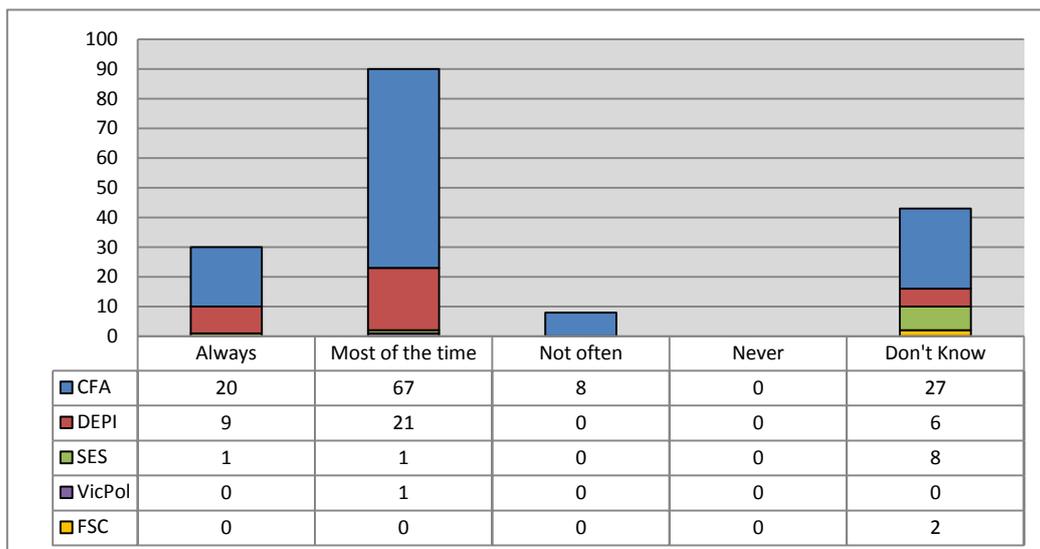


Figure 38 shows that 70% of respondents felt Agency fireground personnel adhered to the Communication Plans “or “Most of the time”. All eight personnel who believed that Agency personnel did not often adhere to Communication Plans were from CFA.

IMT and Field Shift Changeovers

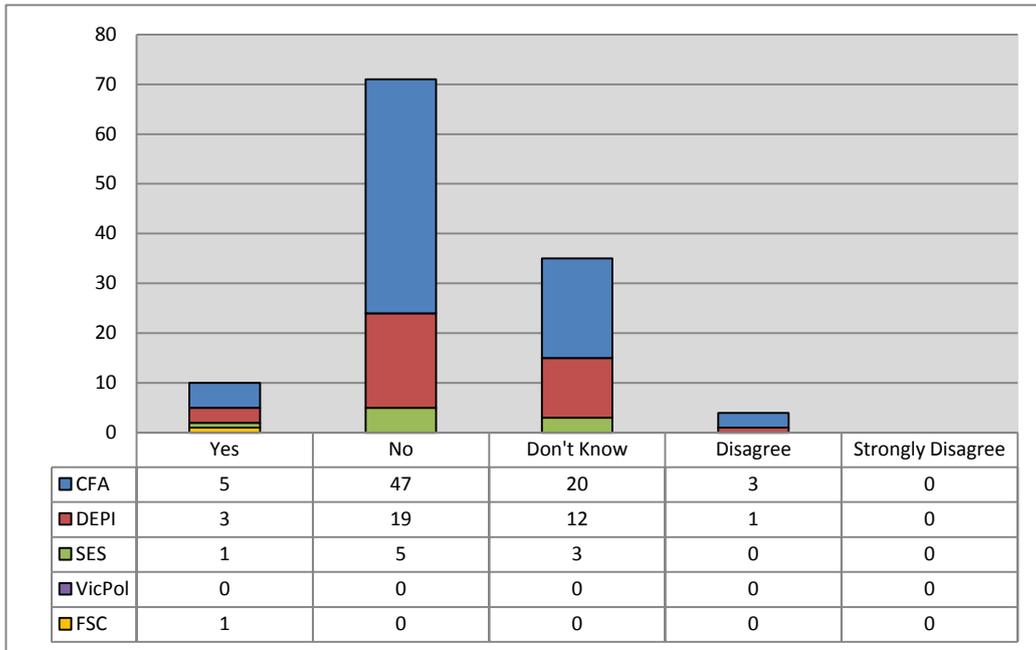
IMT Changeovers

Respondents were subsequently asked to rate their level of agreement as to whether there was good handover and continuity of strategies between IMT shifts. Figure 39 illustrates the results.

The results showed that:

- 68% of respondents agreed or strongly agreed with the statement, and
- only 3% of respondents disagreed with the statement.

Figure 39: In general, there was a good handover and continuity of strategies between IMT shifts.

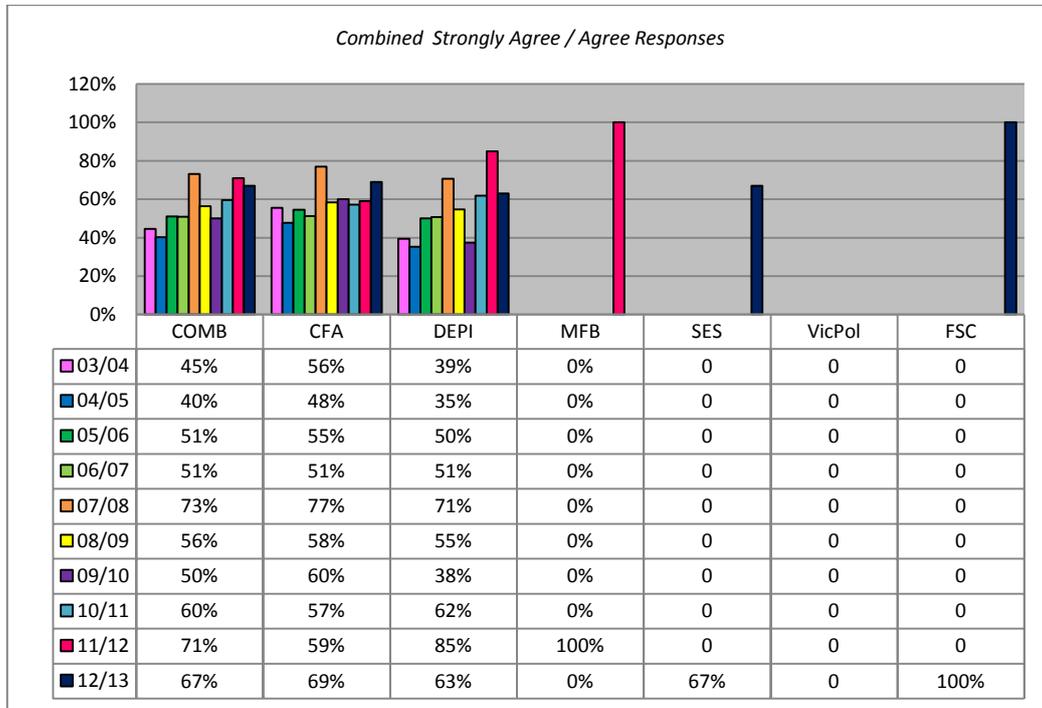


The key qualitative feedback from respondents reflected that there were instances where strategies changed between IMT shifts.

Figure 40 shows the trend data since 2003/04. The combined percentage of respondents (CFA and DEPI) who felt there was good handover and continuity of strategies between IMT shifts in 2012/13 only saw a slight reduction (71% to 67%) as compared to the 2011/12.

A higher percentage of CFA respondents in 2012/13 believed that there was good handover and continuity of strategies between IMT shifts as compared to the 2011/12 results (59% as compared to 69%). Conversely, less DEPI respondents felt this was the case in 2012/13 as compared to 2011/12 (85% as compared to 63%)

Figure 40: In general, there was good handover and continuity of strategies between IMT shifts



Timeliness

In relation to the timeliness of shift changeovers (as shown in Figure 41):

- 61% of respondents agreed or strongly agreed that shift changeovers were timely for the incident(s) they attended,
- 23% of respondents were neutral in their level of agreement that the shift changeovers were timely, and
- 16% of respondents disagreed or strongly disagreed that shift changeovers were conducted in a timely manner.

Figure 41: At incidents you attended, shift changeovers occurred in a timely manner.

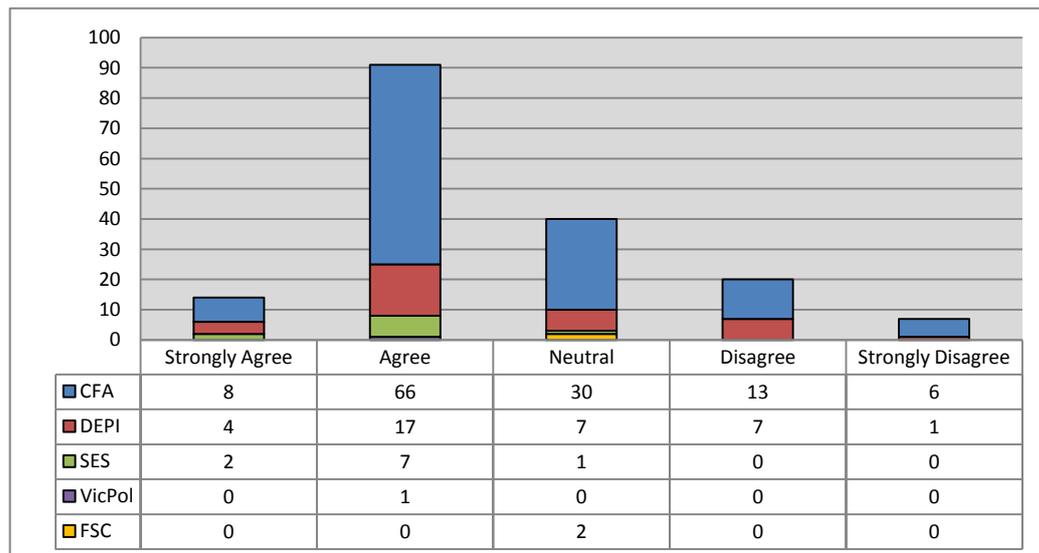


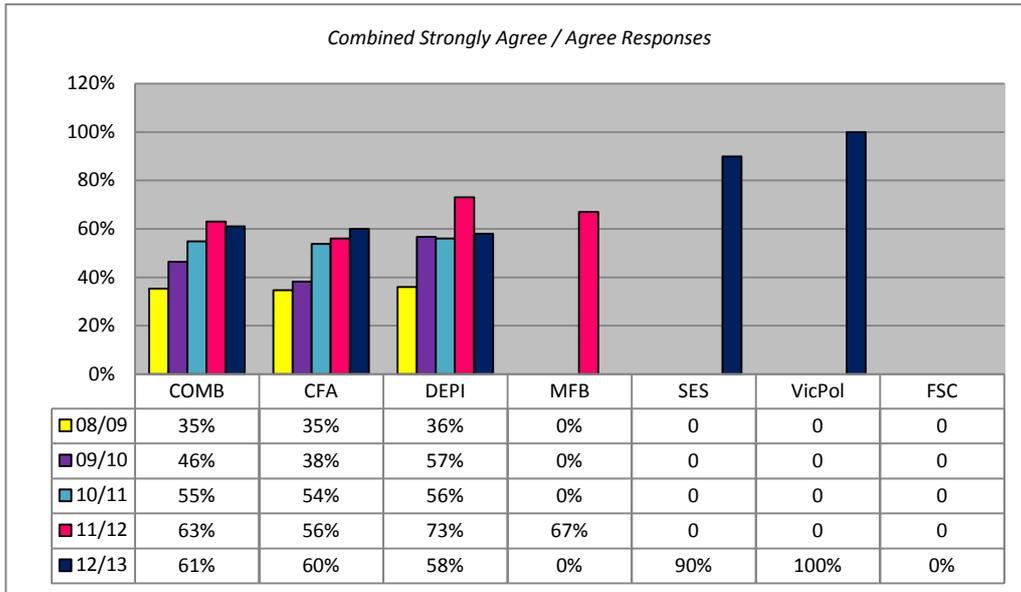
Figure 42 shows the trend data on respondents' level of agreement with the statement since 2008/09.

There has been a significant decline (73% to 58%) in the level of agreement from DEPI respondents that shift changeovers occurred in a timely manner when compared to 2011/12.

On the other hand, the percentage of CFA respondents who felt changeovers did occur in a timely manner increased by 4% as compared to 2011/12. This continues the upward trend since 2008/09 and

broadly suggests an overall improving trend in timely shift changeovers as perceived by CFA respondents.

Figure 42: At incidents you attended, shift changeovers occurred in a timely manner (5 Year Trend)

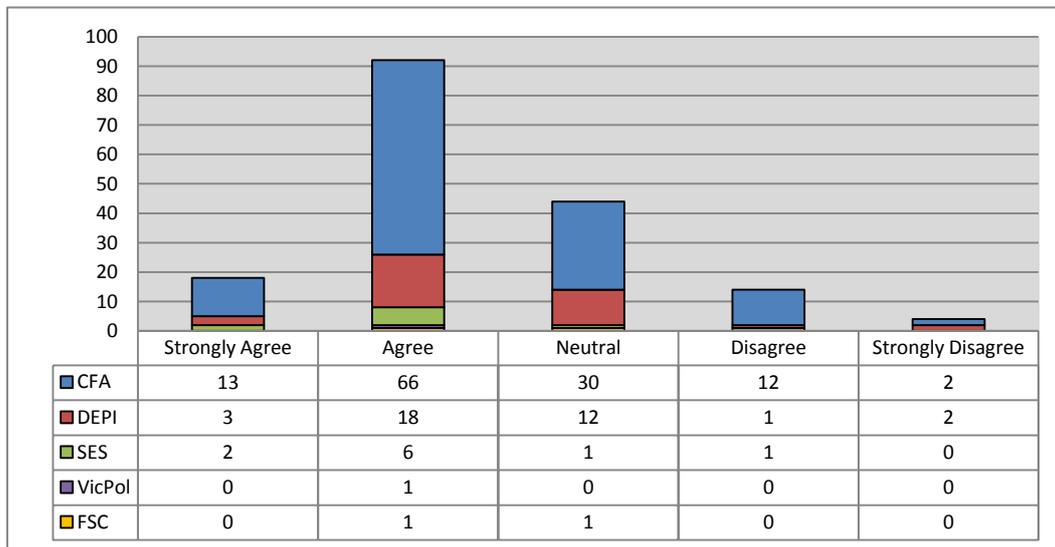


Information Exchange

Figure 43 illustrates respondents' level of agreement with the statement: "Shift changeover occurred with good information exchange". The results were:

- 64% of respondents agreed or strongly agreed,
- 26% of respondents neither agreed nor disagreed, and
- 10% of respondents disagreed or strongly disagreed.

Figure 43: Shift changeovers occurred with good information exchange.



Respondents who disagreed or were neutral in their level of agreement were then invited to provide comments.

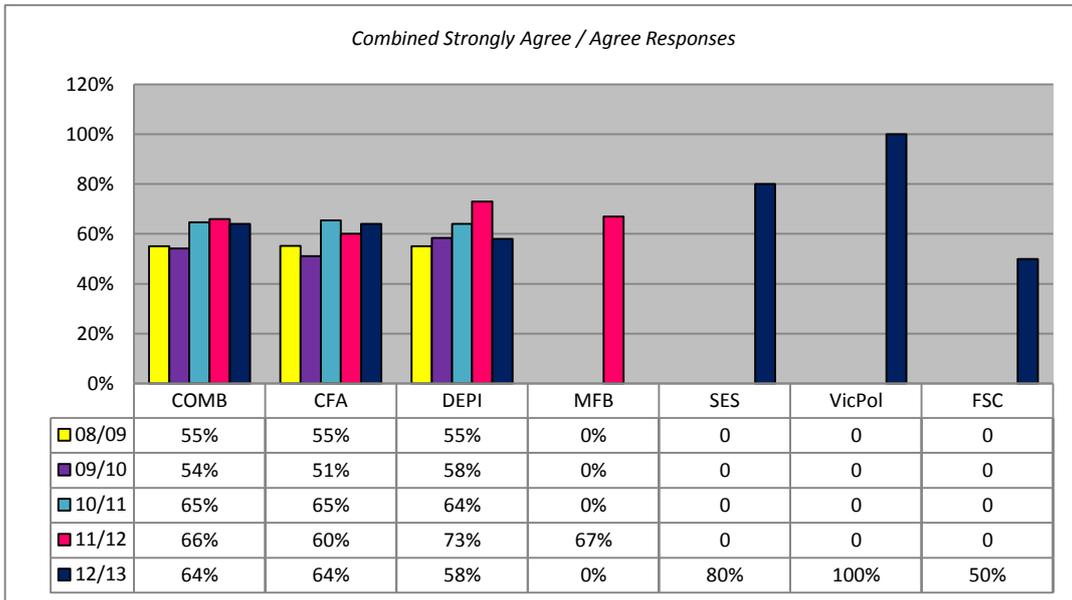
The main reasons as to why shift changeovers did not occur with good information exchange, as identified by respondents, included:

- Poor communication and incomplete information (n=14),
- Lack of up-to-date and complete maps (n=5),
- The exchanged information needs to be more concise and targeted (n=2), and
- There needs to be more time allocated to information exchange (n=2).

Figure 44 shows that respondents' level of agreement with the statement: "Shift changeovers occurred with good information exchange" has largely been consistent since 2010/11. However, there has been a significant decline in the percentage of DEPI respondents (73% to 58%) who agreed with this statement in 2012/13 as compared to 2011/12. This result is in contrast to the otherwise upward trend since 2008/09 for DEPI respondents.

As compared to 2011/12, the results from CFA respondents in 2012/13 saw an increase (60% to 64%) in the percentage of people who agree that shift changeovers occurred with good information exchange.

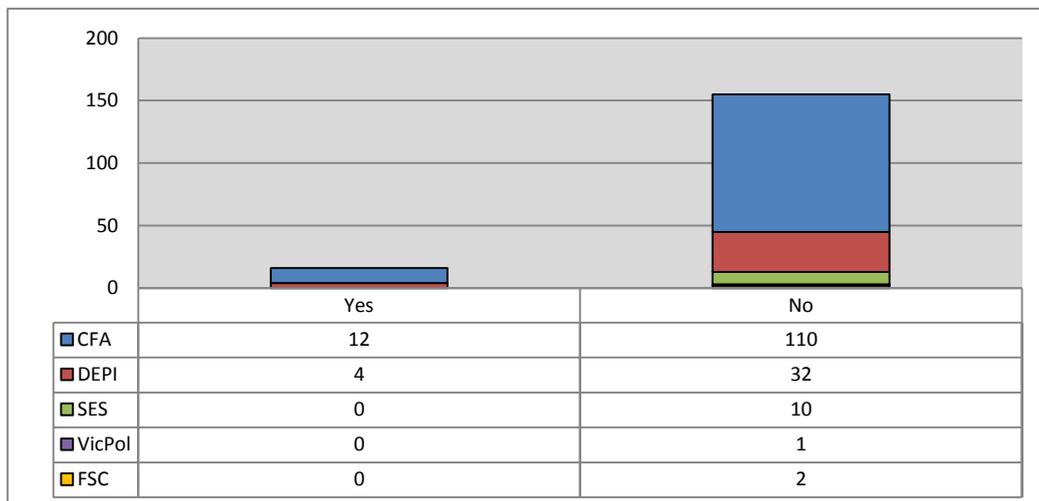
Figure 44: Shift changeovers occurred with good information exchange (5 Year Trend)



Safety Issues associated with changeovers

Respondents were asked whether they had any firsthand knowledge of safety issues occurring because of a poor changeover. Figure 45 shows that only 9% of respondents indicated that they had firsthand knowledge of safety issues occurring.

Figure 45: Do you have firsthand knowledge of safety issues occurring as a result of a poor changeover?



The main identified safety issue as a result of changeover was personnel fatigue. Other identified safety issues included:

- Wind-change not tracked properly,
- Lack of adequate resources made available after the changeover, including food, water and fuel,
- Lack of briefing on key information, such as dangerous trees, and

- Lines left unattended due to incoming crews not provided with sufficient information as to where they need to be.

Figure 46: Do you have firsthand knowledge of safety issues occurring as a result of a poor changeover? (10 Year Trend)

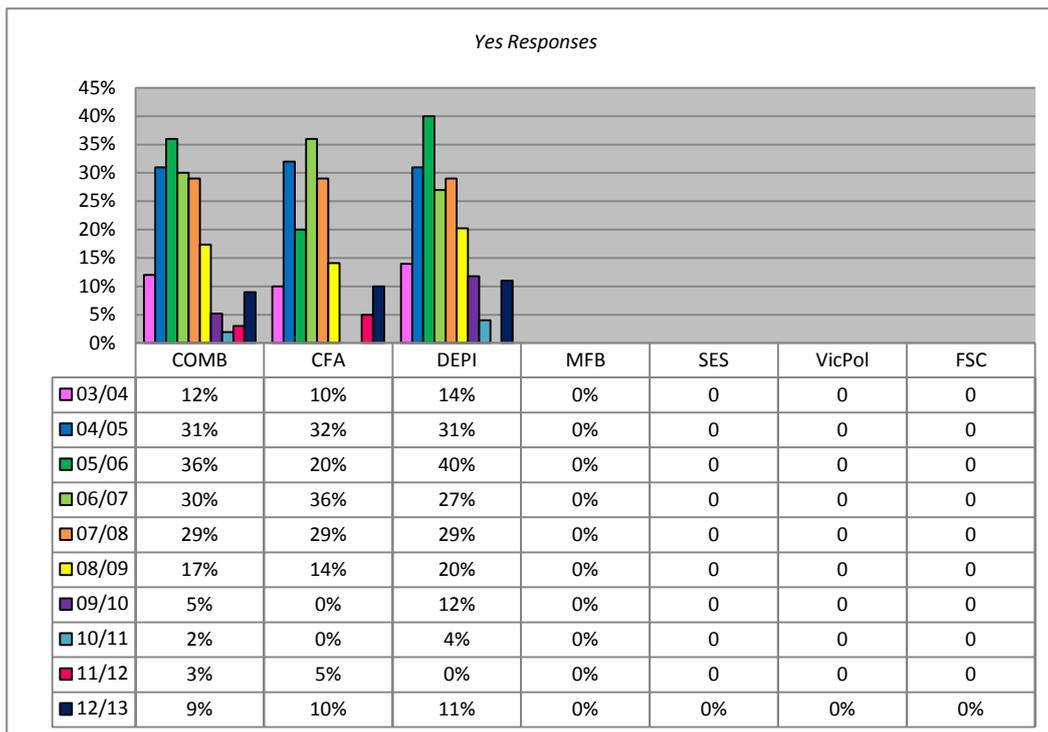


Figure 46 shows a comparison of responses by agency and total for a ten-year period up to and including 2012/13.

Since 2011/12, there have been significant increases in the percentage of both CFA and DEPI respondents who had first-hand knowledge of safety issues occurring as a result of poor changeover. It is important to note that the results may have been skewed upwards due to multiple reports of the same incident.

Staging Area and Resource Tracking

Respondents provided for their level of agreement with the statement “The operation of staging areas was conducted in an efficient manner”. The results are shown in Figure 47.

- 49% of respondents agreed or strongly agreed with the statement,
- 41% of respondents were neutral in their level of agreement with the statement – comprised mainly of respondents for which this question was not applicable, and
- 10% of respondents disagreed or strongly disagreed with the statement.

Comments from respondents reflected that the efficiency of the operation of Staging Areas varied across Districts. Some areas for improvement as identified by respondents included:

- Some staging areas were located too far from the fireground,
- There was no clear and single organisational (and multi-agency) approach to the use of T cards, and
- Multiple Staging Area managers caused confusion.

Respondents were also asked whether they observed the use T-cards and/or Strike Team Booklets and to provide comments if they wished.

For the 95 respondents where this question was applicable, 71% of respondents observed the use of T-cards and/or Strike Team Booklets and 29% of respondents did not as shown in Figure 48.

Figure 47: The operation of Staging Areas was conducted in an efficient manner.

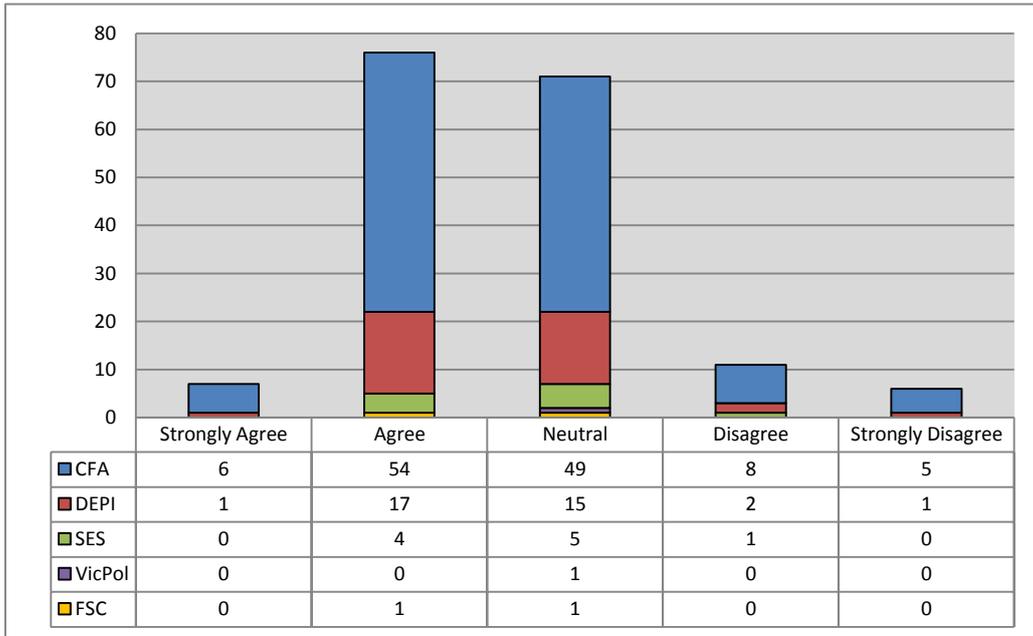
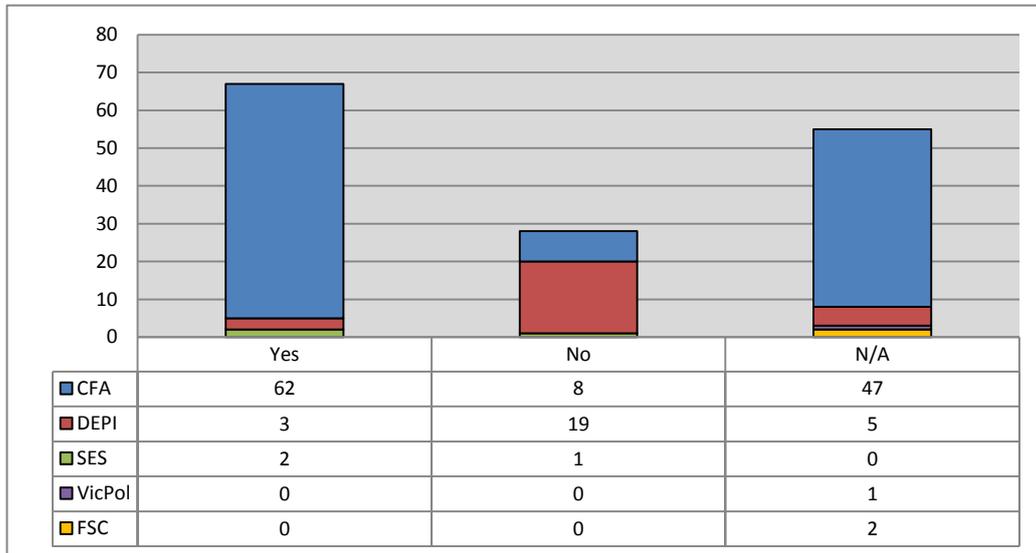


Figure 48: I observed the use of T-cards and/or Strike Team Booklets.



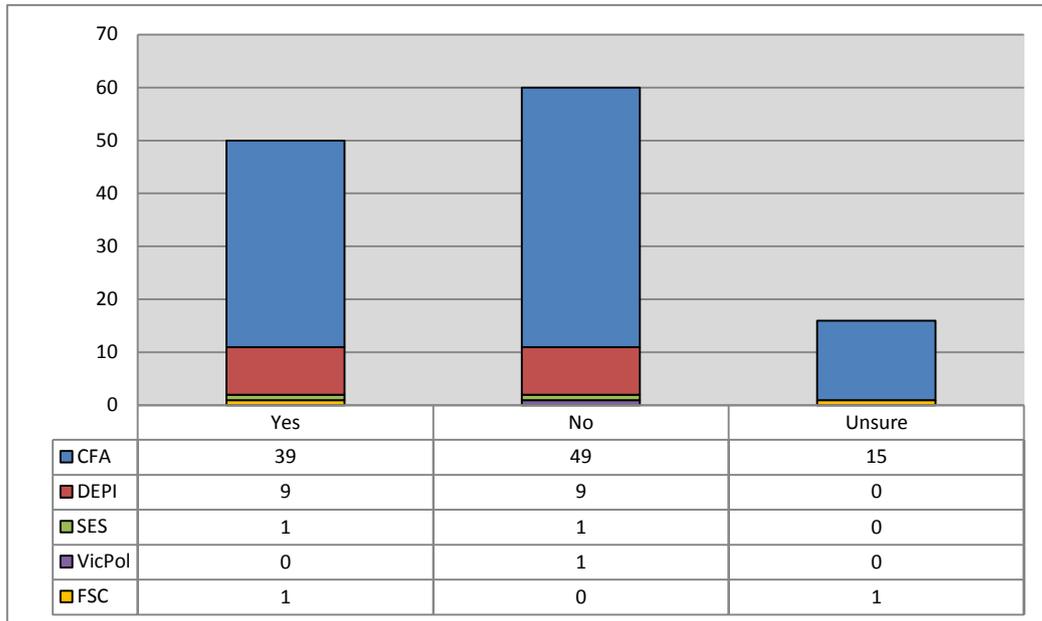
The main comment from respondents was that DEPI does not use T-cards. It was suggested that in the instance of joint Staging Areas, there needs to be a DEPI staff trained in the use of T-cards in order to manage Staging Areas.

Management of Non-Agency Resources

Equipment

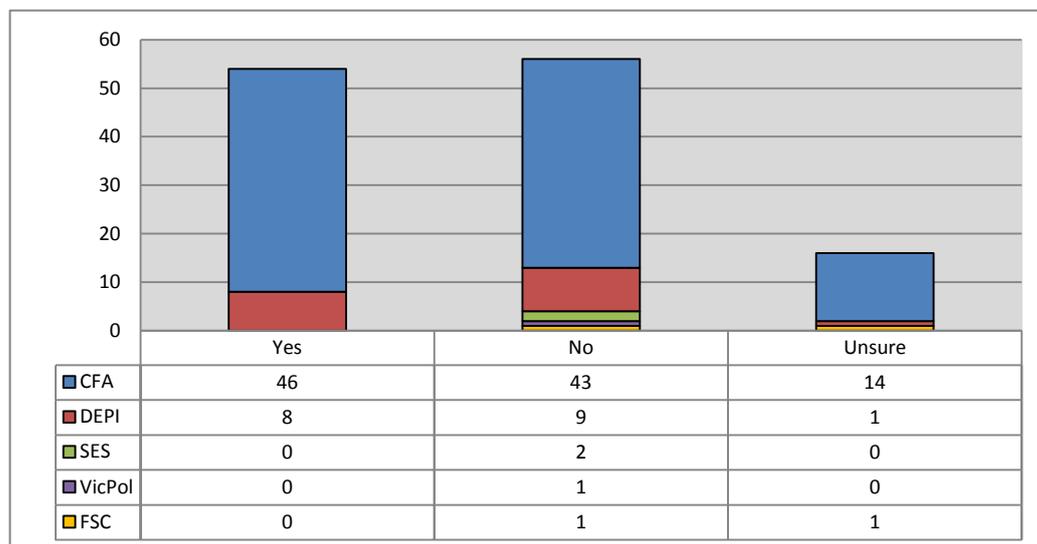
Figure 49 illustrates that 48% of respondents did not observe self-deployment of local resources to the fireground, while 40% of respondents did.

Figure 49: Did you observe self-deployment of local resources to the fireground?



In relation to the existence of private equipment on the fireground, there was almost an even split between the number of people who observed private equipment on the fireground (43%) and the number of respondents who did not (44%) as shown in Figure 50.

Figure 50: Did you observe private equipment (ie. non contract plant/vehicles) on the fireground?



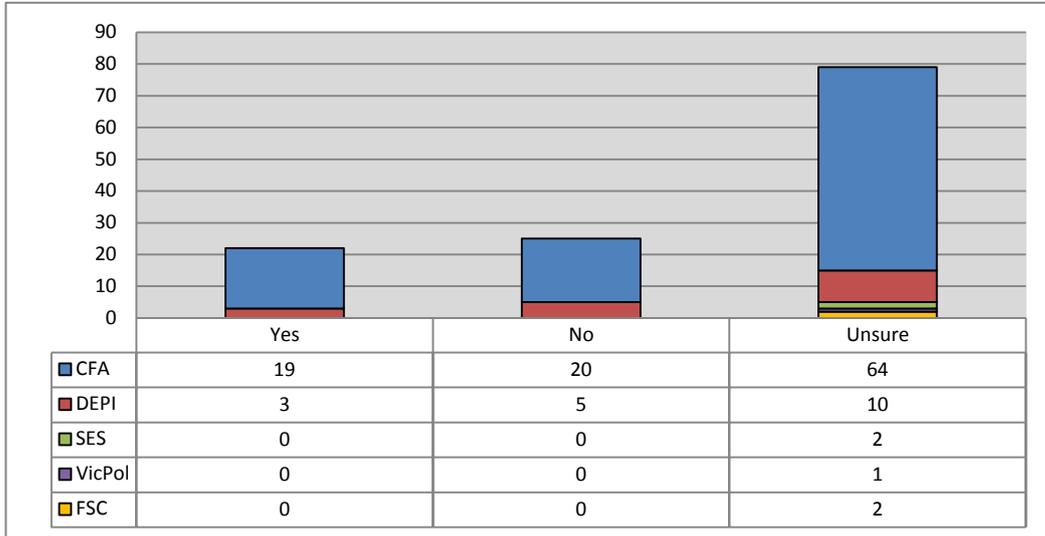
Overall, the qualitative comments from respondents who did observe private equipment on the fireground were quite positive, such as:

- “Ultra-light tankers, all in good condition with good operators. Terrain was inaccessible to tankers and without private equipment we would not have been able to halt spread of fire.”
- “Private equipment happened to be on the spot immediately for a fire having potential to be a major (fire) within minutes and stopped it”
- “Were asked who called you on, “We came to help”, can’t put down community spirit, just used them wisely”

However, some respondents indicated that the private equipment observed were sub-standard and did not comply with OHS principles.

Respondents were also asked whether private equipment was integrated into the Communications Plan. Figure 51 shows that the majority of respondents (63%) were unsure whether they were integrated. There was an almost even number of respondents who believed (18%) that private equipment was integrated into the Communications Plan and those who did not (20%).

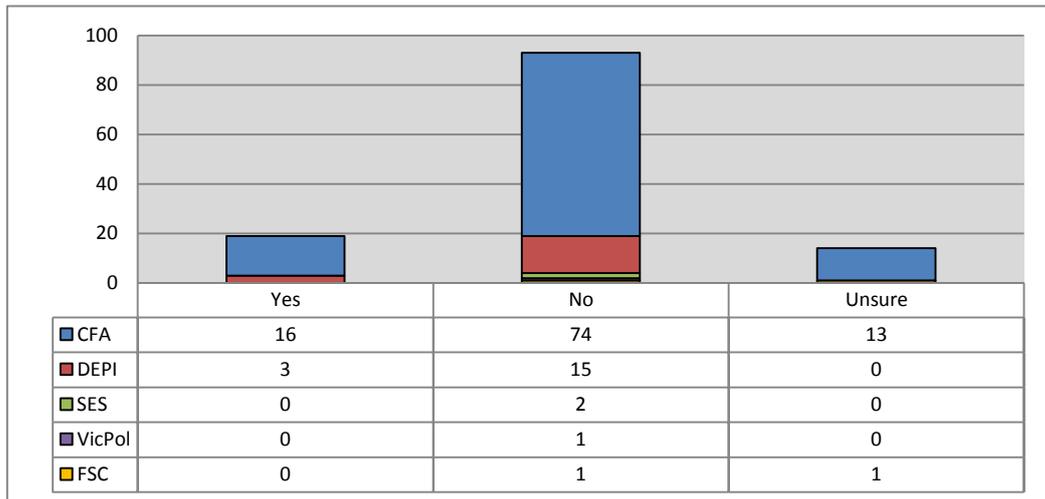
Figure 51: Was private equipment integrated into the Communications Plan (ie. non contract plant/vehicles etc)?



Access of Non-combatants

Nearly three quarters of respondents (74%) answered “No” when asked whether they observed inappropriate access of non-combatants to the fireground (e.g. Media, Telstra, Electricity).

Figure 52: Did you observe inappropriate access of non-combatants to the fireground (e.g. Media, Telstra, Electricity)?



13 out of 18 respondents who commented on access of non-combatants identified the media as having access to the fireground without permission or escort. Other non-combatant parties who were observed having inappropriate access to the fireground included logging companies and members of the general public.

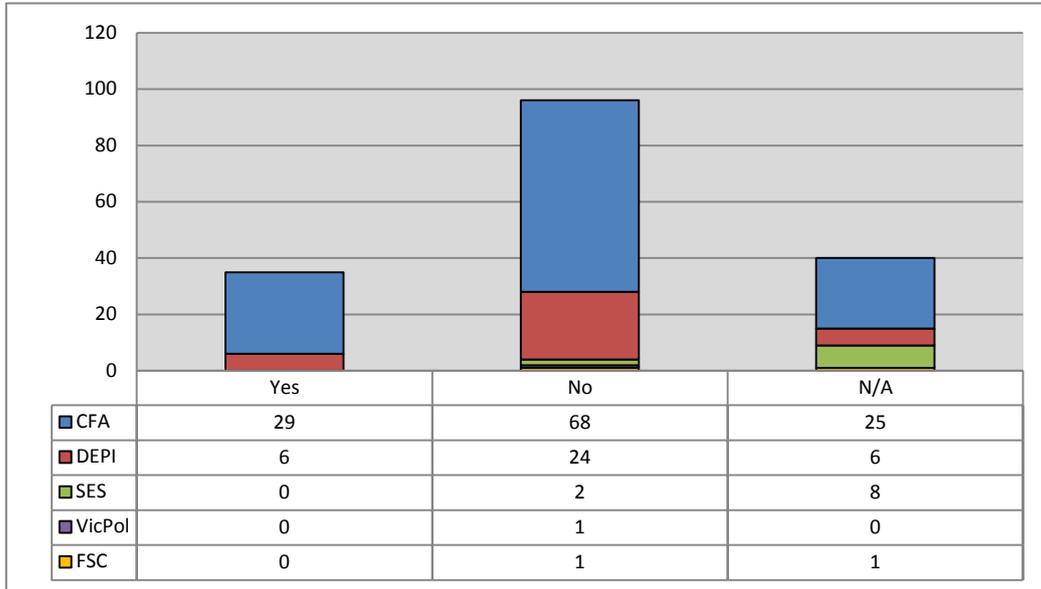
Safety

Red Flag Warnings

73% of applicable respondents (96 out of 131) indicated that no Red Flag Warnings were issues at incidents they attended as shown in Figure 53.

The majority of qualitative comments supported the fact that the Red Flag Warnings were delivered appropriately and worked well, both up and down the chain of command.

Figure 53: Were any Red Flag Warnings issued at incidents you attended?

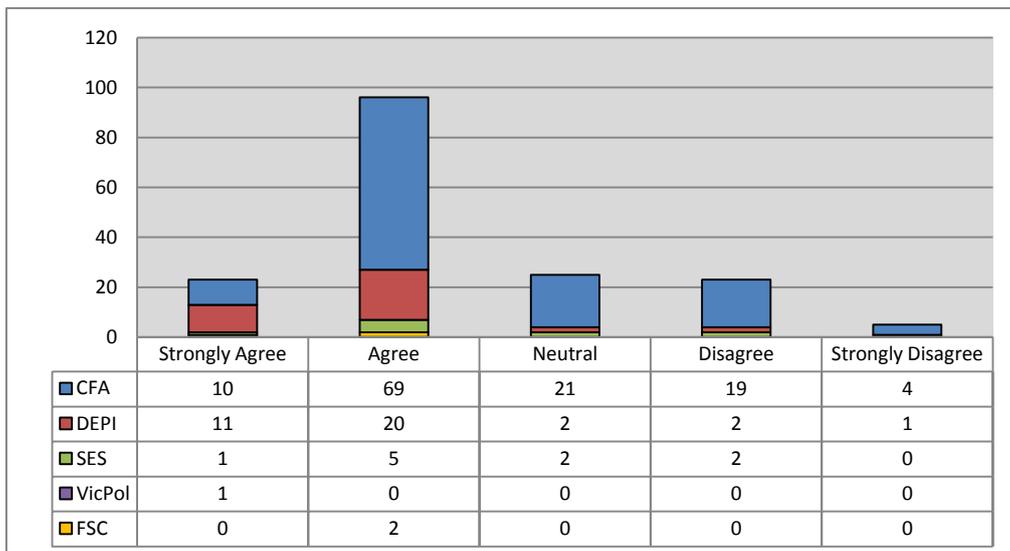


Fatigue Management

172 respondents provided their level of agreement with the statement: “Fatigue was actively managed”. The results are shown in Figure 54.

- 69% of respondents agreed or strongly agreed that fatigue was actively managed.
- 16% of respondents disagreed or strongly disagreed that fatigue was actively managed, and
- 15% of respondents neither agreed nor disagreed with the statement.

Figure 54: Fatigue was actively managed.



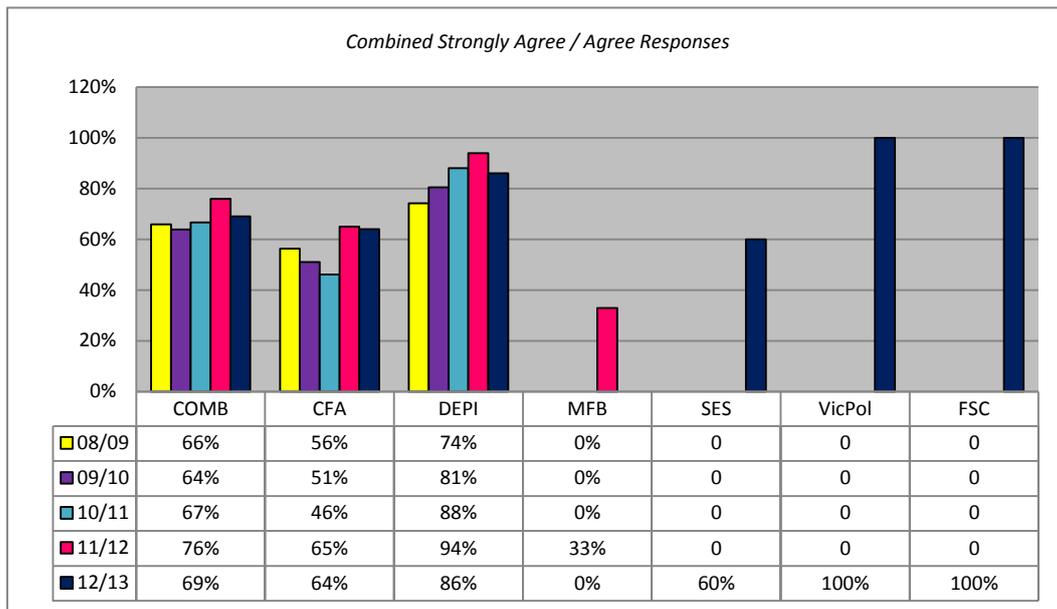
Respondents who were neutral or in disagreement were invited to provide some commentary around their answer. The main reasons provided by respondents as to why fatigue may not have been actively managed included:

- Long travel times between base camp and work locations (n=5),
- Shortage of personnel (n=5),
- Significant hours (upwards of 16 hours) worked in the first 24 hours (n=3), and
- Poor understanding of fatigue management policies (n=1).

Figure 55 shows a comparison of responses (“Strongly Agree” and “Agree”) by agency and total for a five-year period up to and including 2012/13.

The results in 2012/13 show a decline (76% to 69%) in the combined (CFA and DEPI) percentage of respondents who agree that fatigue was actively managed, which, on average has been otherwise trending upwards since 2008/09. This decrease can largely be attributed to the number of DEPI respondents who felt fatigue was not actively managed in the 2012/13 fire season.

Figure 55: Fatigue was actively managed (5 Year Trend)



Driver Fatigue

In relation to driver fatigue, respondents were asked if they were aware of anyone who drove a motor vehicle after working 16 or more hours in one shift without taking a break of more than 10 hours.

Figure 56 shows that more than half (57%) of respondents answered “No”.

For the ten respondents who answered “Frequently”, six respondents provided comments. The main comment was that poor fatigue managements caused driver fatigue and this was occurring mainly with CFA personnel.

Figure 56: Are you are of anyone who drove a motor vehicle after working 16 or more hours in one shift without taking a break of more than 10 hours? (5 Year Trend)

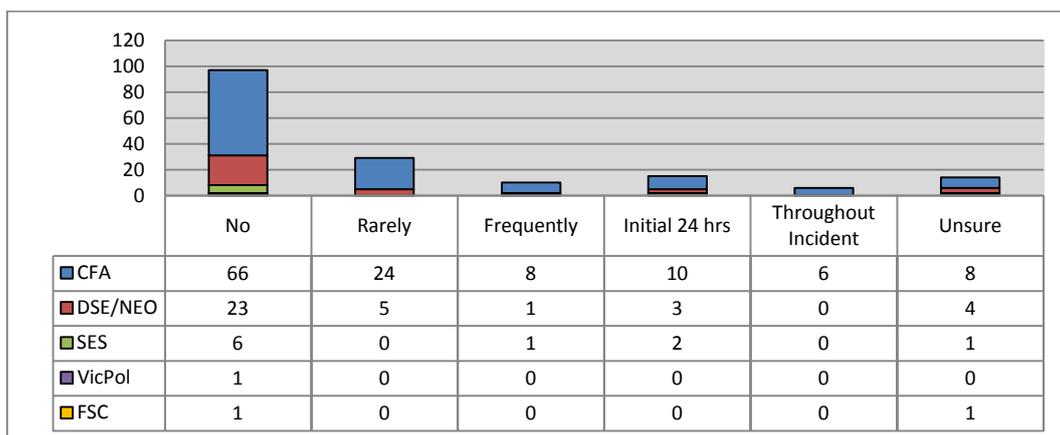


Figure 57: Are you are of anyone who drove a motor vehicle after working 16 or more hours in one shift without taking a break of more than 10 hours? (5 Year Trend)

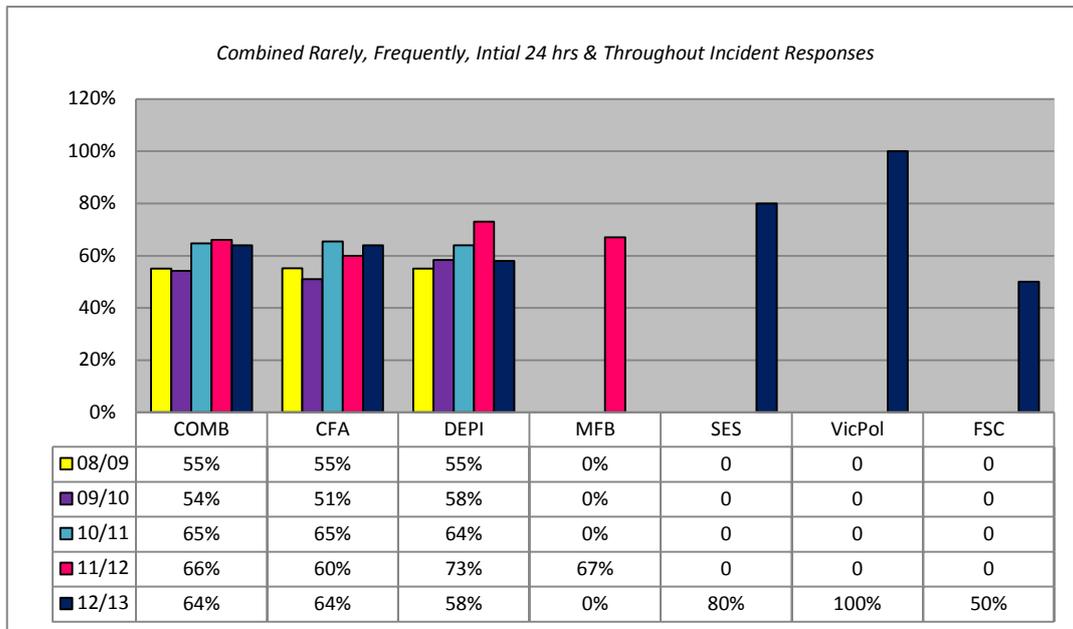
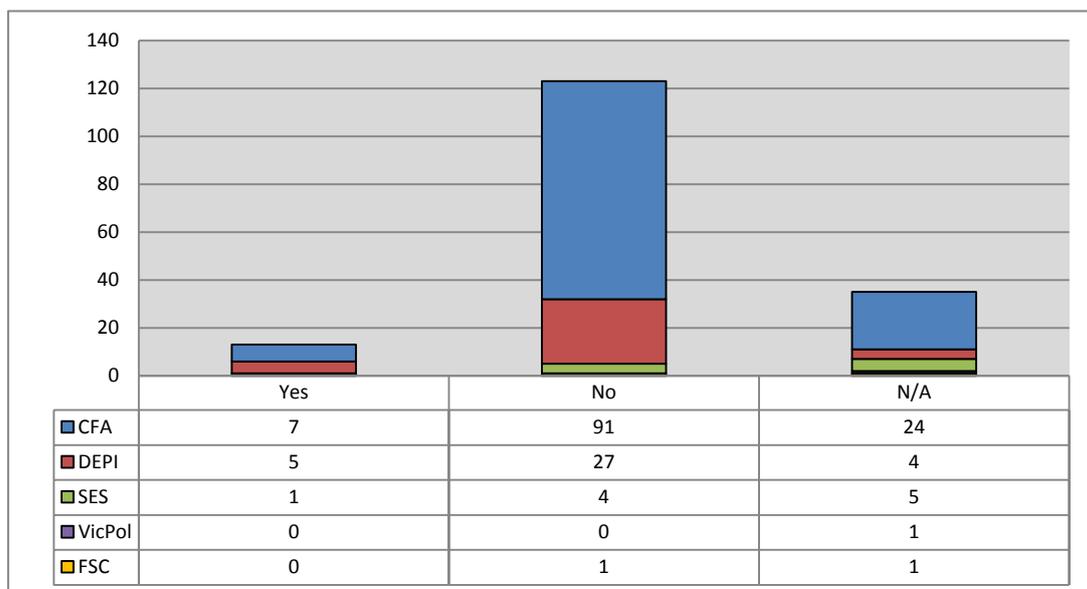


Figure 57 shows that the combined response (CFA and DEPI) in relation to vehicle fatigue has largely remained consistent since 2010/11. At the agency level, CFA has seen an increase in the percentage of respondents who were aware of someone driving a motor vehicle while fatigued, while there has been a significant decrease in the percentage of DEPI respondents (73% to 58%) who were aware of the same aspect.

Fatigue Recovery

Respondents were also asked whether they were redeployed to another incident/location before feeling recovered from the previous deployment. This question was applicable to 136 respondents and the majority of whom (90%) indicated that they were not redeployed before feeling recovered (as shown in Figure 58).

Figure 58: Were you redeployed to another incident / location before feeling recovered from the previous deployment?



The main reasons for redeployment before feeling recovered as cited by respondents were due to:

- insufficient personnel numbers, and
- long travel times, leading to fatigue.

OH&S Incident Reporting

Respondents were asked:

- Did you have personal access to OH&S Incident Report Cards at the incident you attended?
- Do you have firsthand knowledge of instances of when OH&S Incident Report Cards should have been used but weren't?

The results are shown in Figures 59 and 60. Two thirds of respondents had personal access to OH&S Incident Report Cards at the incidents they attended. Majority of respondents (72%) did not have firsthand knowledge of instances where OH&S Incident Report Cards should have been used but were not.

Figure 59: Did you have personal access to OH&S Incident Report Cards at the incidents you attended (e.g. carried cards, in vehicle etc)?

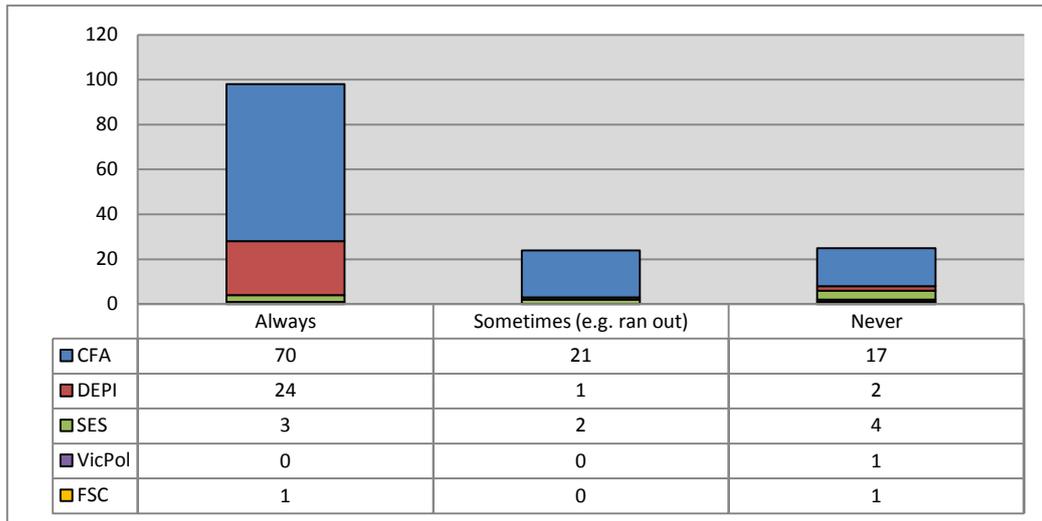


Figure 60 shows the responses by agency and totals for the ten-year period up to and including 2012/13. There has been an increase in the percentage of both CFA and DEPI respondents who indicated they had access to OH&S Incident Report Cards as compared to 2011/12.

Figure 60: Did you have personal access to OH&S Incident Report Cards at the incidents you attended (e.g. carried cards, in vehicle, etc)?

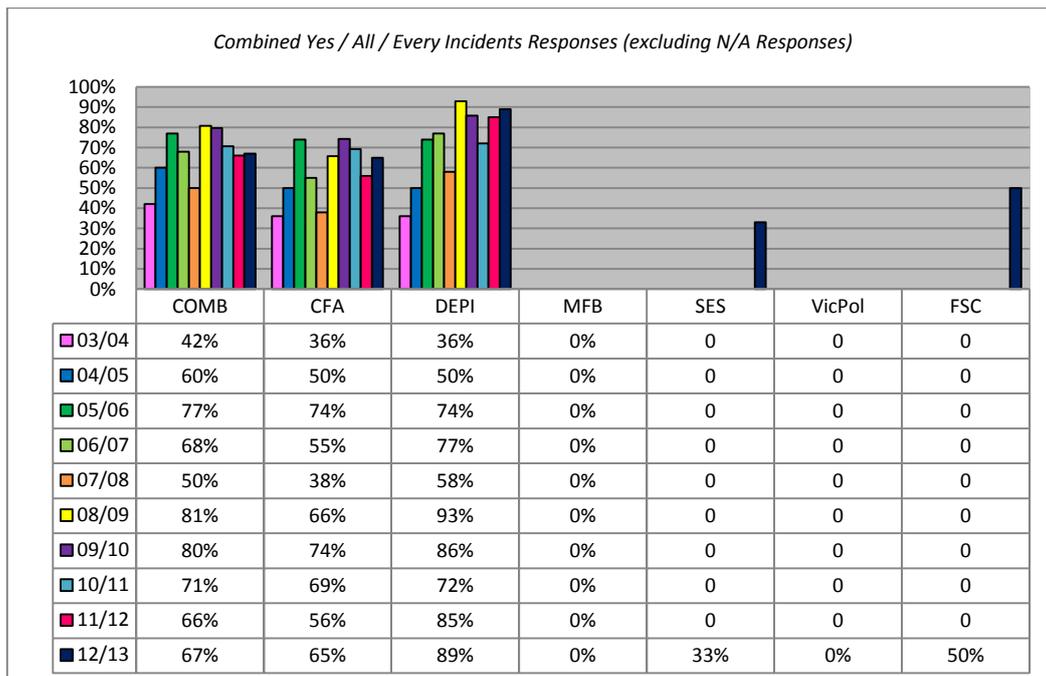


Figure 61: Do you have firsthand knowledge of instances of when OH&S Incident Report Cards should have been used but weren't?

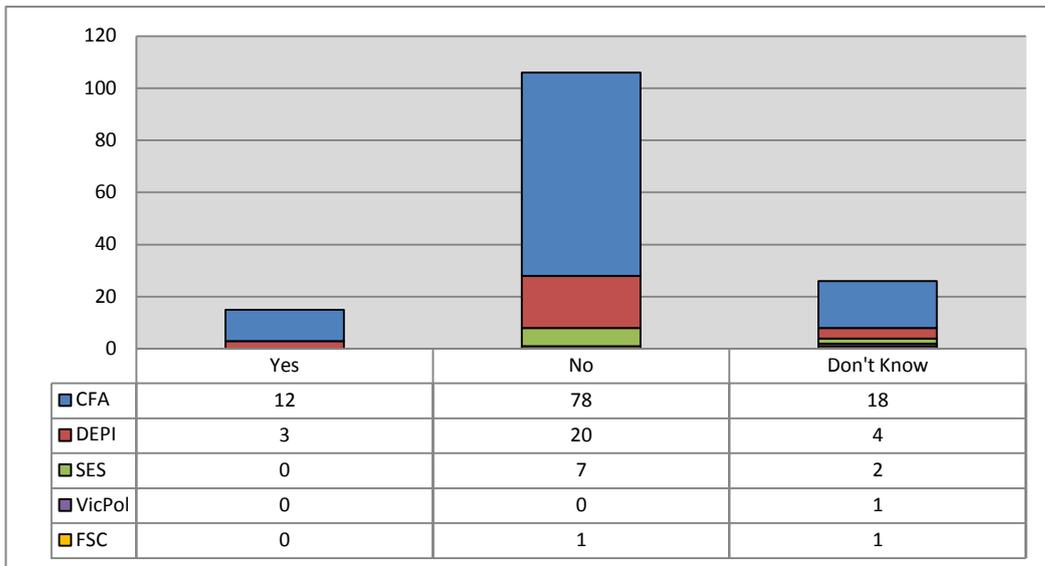
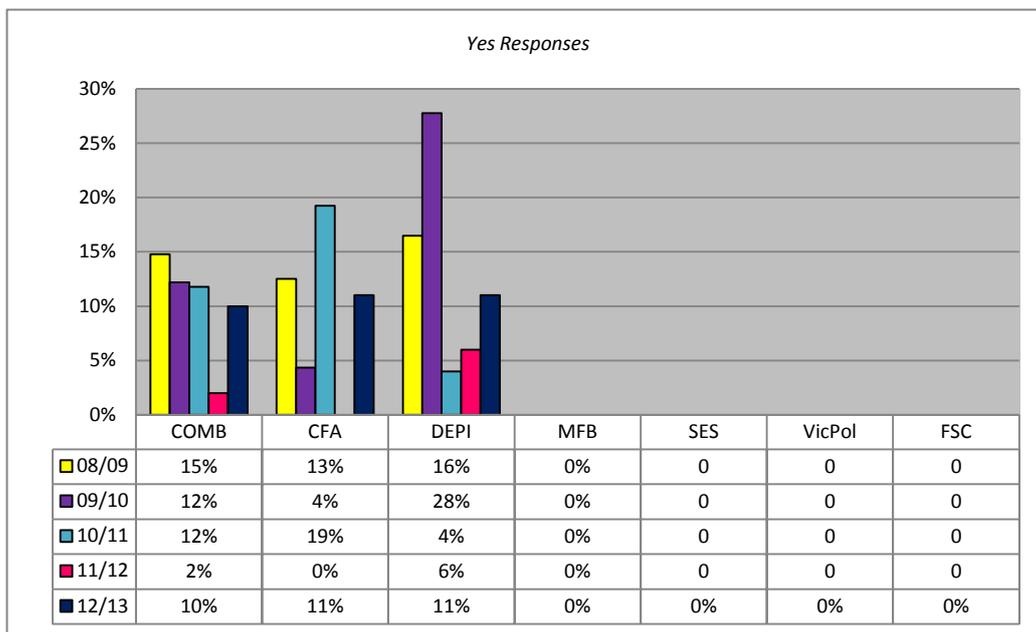


Figure 62 shows the trend data for respondents' firsthand knowledge of OH&S Incident Report Cards not being used.

As compared to 2011/12, there has been an increase in the percentage of respondents, from both CFA and DEPI, indicated they had first-hand knowledge. However, it is important to note that responses from the 2011/12 year showed abnormally low percentage of respondents with first-hand knowledge.

Figure 62: Do you have first hand knowledge of instances when OH&S Incident Report Cards should have been used but weren't?



Seatbelts

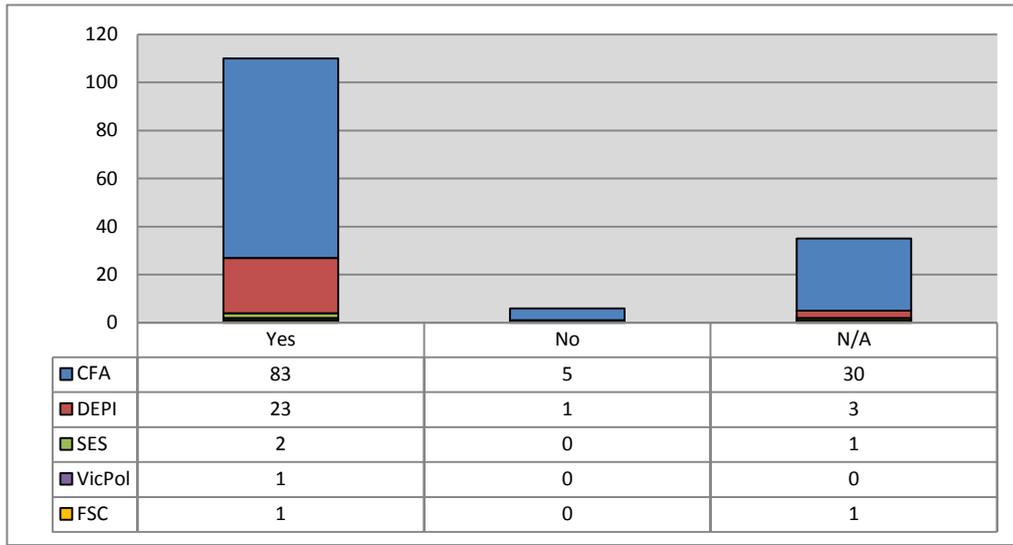
Respondents were asked whether the personnel they observed adhered to the wearing of seatbelts.

151 respondents answered this question. The primary levels of participation of these respondents in the 2012/13 fire season were:

- RDO – District/Region,
- Joint Level 2 Incident – IMT/Division/Sector,
- Joint Level 3 Incident – IMT/Division/Sector, or
- All Other/Outside Target Group.

Figure 63 shows that 73% of respondents observed adherence to the wearing of seatbelts by personnel, while only 4% indicated that the personnel they observed did not wear seatbelts.

Figure 63: Did personnel that you observed adhere to the wearing of seatbelts?



Comments from some respondents regarding seatbelts included:

- Seatbelts are not always worn on the fireground, and
- There are still problems in relation to personnel not wearing seatbelts in the rear of appliances whilst travelling.

Survey Observations and Findings

Overall, the survey responses this year reflected a range of positive findings as well as some areas for improvement.

Some positive findings include:

- The availability and access to pre-season information, with 93% of respondents having received or accessed pre-season information. Furthermore, the pre-season information was made available via a variety of sources and the survey results indicate that respondents did receive their information from different sources.
- A significantly higher percentage of CFA respondents, 78% in 2012/13 as compared to 59% in 2011/12, indicated that they had access to adequate local knowledge when performing as part of an away crew.
- All respondents indicated that Level 3 incident(s) were being managed out of designated as Level 3 ICCs.

This survey also revealed several areas for improvement. These include:

- The upward trend in the both CFA and DEPI respondents' levels of agreement that fatigue was actively managed ceased in 2012/13. As compared to 2011/12, the results in 2012/13 show a decline (76% %) in the combined (CFA and DEPI) percentage of respondents who agree that fatigue was actively managed. The main reasons provided by respondents were personnel shortage and long travel times between fireground and base camp.
- Both CFA and DEPI respondents' perception that genuine integration of joint operations is occurring has decreased since last fire season. Respondents have identified culture and individual personalities and the lack of familiarity and interoperability of systems as the two primary barriers to achieving genuine integration of joint operations.
- As compared to 2011/12, there have been significant increases in the percentage of both CFA (from 5% to 10%) and DEPI (from 0% to 11%) respondents having first-hand knowledge of safety issues occurring as a result of poor changeover. This is linked to the quality of information exchange during changeovers. 10% of respondents disagreed/strongly disagreed that good information exchange occurred during changeovers this fire season.
- Some respondents (11%) indicated that an endorsed Level 3 Incident Controller was not leading Level 3 IMTs. Furthermore, according to 10% of respondents, there were Level 3 incidents where no Safety Officer was appointed.

Review Team Learnings

Learnings Identified

In addition to the learnings and observations from debrief participants and survey respondents the multi-agency review team have also identified a number of insights from this process for the purpose of ongoing improvement of future FDP review.

The existing process of collecting information at the conclusion of the FDP presents significant challenges for some agencies as their attention shifts to other responsibilities. This creates difficulties at times in coordinating people to provide feedback. It is also noted often key observations are overlooked or forgotten during the FDP and lost using the present arrangements.

It has also been identified by the team our emergency management partners have often undertaken their own internal debriefing and reviews following an FDP but this information does not often find its way to a consolidated learning and improvement framework.

The existing Joint Operations, Incident Management and Safety Survey has remained largely unaltered for the past ten years. Each year different people, in varying numbers complete this survey which in turn significantly varies the quantitative data and the quality of the output. It has been identified there is a need to review the content and method of conducting this survey in the future to provide more robust results which can further inform continuous improvement, but also, collect our achievements.

Continuous Improvement Actions

As a consequence of this experience the multiagency review team will work to develop a more dynamic and real time collection process for the 2013/14 FDP that ensures that all activities involving readiness and response are rapidly collected, reviewed and can immediately inform, not just at the end of the FDP, but also during this period, our activities.

Future survey options will also be explored to develop a more suitable platform and process that ensures the data collected has greater value.

We also intend to engage with our other emergency management partners to ensure their review activities throughout the FDP are linked to those of the fire agencies and contribute to broader learnings in the sector.

Participation

Through input during debriefs, surveys and other review activities people from the following agencies and organisations provided observations, feedback and insights into the 2012/13 fire season.

Ambulance Victoria
Australian Defence Force
Australian Energy Market Operator
Bureau of Meteorology
CFA
Department of Business and Industry
Department of Education and Early Childhood Development
Department of Environment and Primary Industries
Department of Health
Department of Human Services
Department of Justice
Department of Premier and Cabinet
Department of Transport
Department of Transport
Emergency Services Telecommunication Authority
Environment Protection Authority
Fire Services Commissioner
Metropolitan Fire Brigade
Municipal Association of Victoria
Municipalities
Office of the Emergency Services Commissioner
Power and water companies
Public Transport Victoria
Red Cross
Tourism and commerce operators
VicRoads
Victoria Police
Victoria State Emergency Service

