Managing complex incidents

Guidance for an incident controller

2010

Department of
Environment and Conservation

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Roles and responsibilities of the Incident Controller and the Incident Management Team

Introduction

As an Incident Controller or a member of the Incident Management Team (IMT) you are a senior manager and key decision maker contributing to the efficiency and effectiveness of incident management. Your managerial skills will play a vital role in achieving successful outcomes. Management is all about the management of resources that brings the right type of resources to bear on a problem in the most appropriate quantum, at the right time and in the right place. This document has been complied to provide you with an indication of what is needed to successfully fulfil the management role at a complex incident.

You will also provide a senior leadership role in building and maintaining productive relationships with the people you lead and report to. These leadership skills are not the focus of this document but are essential if effective management is to be achieved.

This document is by no means comprehensive and you will need to make yourself familiar with agency systems and protocols that facilitate effective incident management. You should take every opportunity to learn from your own experiences and those of others, including published literature on management and leadership.

This document is targeted at Department of Conservation and Environment (DEC) personnel and those from other agencies that are involved regularly with DEC in fire suppression operations. At times this document refers to procedures, forms and tools that are used by DEC to manage bushfire incidents. These instruments will change and improve over time and the most up-to-date versions can be found on the Fire Management Services intranet page or by request.

You are going to be called to an incident to lead a team of people that you may or may not have formed any previous relationship with. You will be expected to manage a set of resources (for example people, plant and aircraft) that will consume large amounts of money per hour. The quantum and complexity of these resources is likely to be significantly greater than you are used to working with in your normal employment.

You are going to be very visible. You are going to represent the department to the community and the world through various mediums including the electronic media. You will be expected to make decisions that could have significant consequences (good and bad). You may be in country that you are not familiar with. You may be working with a community of which you have little knowledge or understanding.

This engagement will start with one phone call and you will be in the incident management pressure cooker for several days at least.

Your team, the jurisdiction that you are working for and the community that you are working with will look to you to get it done, to do it right, to keep them informed and safe. This is the role of the Incident Controller (IC).

You will not do all this alone. You will have a team around you that will make it happen if you manage and task them effectively. Your job is to be the conductor of the orchestra:

- to be in control
- to use the baton to ensure all parts of the incident management team work in concert
- to provide the authority and approval to act
- to ensure that the right type and quantum of resources are available and deployed in the right place, at the right time with the appropriate support to allow them to achieve the right outcome
- to ensure that information flows between the various sections of the team, between the team and the community and between the team and the other organisations assisting in incident management.

Achieving effective outcomes requires an adequate organisational structure populated with people that know their jobs. The IC has up to six direct reports. The Safety Advisor, the Liaison Officer and the Deputy IC (if appointed) report individually. The Operations Officer, Planning Officer and Logistics Officer form the 'Executive' and, in concert with the IC, are referred to as the Incident Management Team (IMT). The IC has a conduit to the support and combat agencies/ organisations through the Liaison Officer, an insight to incident safety through the Safety Advisor and direct management control of the incident through the members of the IMT. If a deputy IC is in place this office can deal very effectively as the IC's representative with the Incident Support Group (ISG) and/or the Operations Area Support Group (OASG) as defined in *Westplan Bushfire*.

Every IC must constantly work with two time frames – the future and the present. Ignore either of them or get the balance of attention between them wrong and you will be in big trouble.

Your job requires that you constantly forecast where your incident will be in two or three shifts time. This enables you and your team to be prepared for all eventualities and to be expecting most of the unexpected.

You also need to be aware and responsive to the present. Facets of an incident can change very rapidly. You need to be flexible and nimble, responding tactically in such a way as to preserve your long term effectiveness.

What is the difference between a Level 2 and Level 3 incident?

For bushfire incidents most experienced ICs will tell you it's about 15 minutes on a good day. Don't get too hung up on the terminology. Once you are in a swamp with crocodiles, the number of crocodiles doesn't make a lot of difference to the way you feel.

The AIIMS definitions provide an indication of the difference.

Level 2 incidents

Level 2 incidents (L2) are more complex either in size, resources or risk (than level 1). They are characterised by the need for:

- deployment of resources beyond initial response
- sectorisation of the incident

- the establishment of functional sections due to the level of complexity

OR

- a combination of the above.

They are commonly attended by more than one agency and usually endure for one or two operational periods.

They don't usually have potential for significant impacts on communities or industry and don't attract too much media attention.

Level 3 incidents

Level 3 incidents (L3) are characterised by degrees of complexity that may require the establishment of divisions for effective management of the situation. These incidents will usually involve delegation of all functions.

They usually have significant commitment of resources and inevitably involve other agencies, endure for extended periods of time, have significant repercussions for communities and industry and have heightened media and political interest.

Emergency plans at regional or state levels are usually activated and interaction of the Hazard Management Agency with other state agencies and organisations is intense and at a senior level of responsibility.

What does this mean for me as an IC?

At the time of deployment you need to be asking questions that will inform you of the potential for the incident to become a L3, such as:

- Where is it?
- What assets are threatened?
- How fast is it moving?
- What progress has been made?
- What's the current and potential fire behaviour?
- What's the predicted fire spread?
- What resources are committed or on the way?
- What other agencies are involved?
- Who cares about where it is going (community leaders and their values)?
- What disruption is possible to community and industry?

This awareness will enable you to make timely and informed decisions about preparing for the transition from a L2 to a L3.

From something that is a comfortable operation to something that will stretch your capabilities and those of the department. You need to make this call as soon as possible as time is your enemy at this point. You will not be criticised for ramping up your response but you will bear criticism if you fail to do so and the management of the incident flounders.

If a L3 incident is the result of these deliberations:

- The establishment of an ISG as soon as possible is required. This will allow the links to community and other agencies to be formalised quickly and their activities will allow you to focus on the demands of the incident.
- Establish resourcing levels commensurate to a L3 incident (Appendix 1) as soon as possible.
- Attain a 'delegation of responsibility' (see Legal responsibility and FOG 88) from the incident jurisdiction to set your reporting structures, time lines and the limits to your responsibilities. In particular the delegation should address the responsibilities for reporting if an OASG is established and the responsibility your incident has to address initial attack activity in the jurisdiction.
- What responsibilities are you picking up and what will be the responsibility of others, for example OASG and head office – what are the reporting structures? What are the information flows?
- Critically examine the location of the Incident Control Centre (ICC) and Operations Point and any staging areas and the facilities that they will require. Move/improve them now – if necessary.

Location of ICC and infrastructure requirements

Effective management of an incident is primarily dependent on good situational awareness (SA) and effective communication between team members. Both these are best served if the team is located close to the fire ground and close to each other. For this to be realised adequate facilities must be present at these sites and suitable and reliable communication links must exist between team members and between the IC and the outside world.

There may be components of the organisation that can work more effectively at other locations. It may, for example, be more effective if the mapping unit worked in a DEC office with the technology and connectivity to data sources required for making maps. However, removing the opportunity for face-to-face communications significantly affects the timeliness, reliability and effectiveness of communication.

Critical considerations for the location of an ICC are:

- Safety – is the site safe in terms of access? Will it be affected by the incident?
- Space – is there enough room to allow parking of equipment, plant and vehicles, tents for team units, storage of supplies, servicing, briefing and feeding areas?
- Availability – is the facility/ site available for the likely duration of the incident? If using community infrastructure like schools, public halls or recreation centres, local or state government buildings – these structures may be required for other purposes.
- Access – is the ICC on major access routes? Is it easily found (day and night)? Is there access around the facility (traffic flow) and access to aircraft landing grounds?
- Proximity to the incident.
- Power – do you have or can you ensure uninterrupted power?

- Communications – radio, phone (landline), mobile phone, IT broadband and satellite access/coverage.
- Implications of disruption to incident management continuity of shifting an established ICC.

These requirements are most often accommodated with a combination of facilities that exist in local communities such as recreation halls, playing fields, showgrounds and town halls, and equipment and supplies held by responding agencies such as communication busses, tents, satellite equipment, catering equipment and power generators that allow them to establish command and control infrastructure in forward positions.

The type of infrastructure that you will need to run a L3 incident is considerable. Don't be afraid to establish a significant facility. It is far more effective to set it up initially with what you will probably need than to set up with only what you need right now and be in a constant state of dynamic change, adding infrastructure, as the demands of the incident expand.

Whenever possible you should try to have your ICC co-located, or geographically very close to, the designated Operations Point. Effectiveness of communications is vastly improved by face-to-face proximity of incident managers and timeliness of decision making and implementation are also greatly enhanced. Co-location is also more resource efficient – there is no need to duplicate functions at the ICC and the Operations Point.

Incident Control Centre

At the Incident Control Centre (ICC) location you will need dedicated work spaces for the units of the AIIMS structure. Dependent on the situation these workspaces will consist of a mixture of infrastructure already existing in communities such as local offices, recreation facilities and town halls and portable or mobile work spaces that you will have to import and establish.

A workspace is a dedicated, sufficient, definable and unique area used by a unit. They are referred to as 'tents' to re-enforce the idea that you can build an effective facility at any location. The ICC includes the following tents/workspaces:

- A space for the IC to work and hold meetings – your own tent.
- A space for the Operations Officer to work, hold meetings and small briefings – a tent.
- A space for the Planning Officer and the Situation Unit to work – a tent.
- A space for the Resources Unit – a tent.
- A space for the Logistics Section to work – it is suggested to have one tent for Logistics Officer and the Supply Unit and one tent for the Facilities Unit and Ground Support Unit.
- A space for the communications bus (centre of node).
- All the above should be located in a node to facilitate communication between Units.

Other common facility requirements include:

- controlled access to the site to limit access to essential personnel only

- a check-in check-out space between the 'entry/exit' point to the facility and the catering space – facilitates recording of people arriving and going to the fire ground
- a catering space consisting of a food preparation area with sufficient space for storage of provisions and cooking and another nearby space (under cover) that is set up to feed people (tables, chairs, hand washing facilities, food presentation benches, pick up area for packaged meals)
- a briefing area with map displays and public address system – if possible under cover – perhaps a big marquee
- separate parking areas for plant and machinery, trucks, and light units and vehicles that are close to the entry point of the facility and contained so that vehicles cannot enter the facility grounds
- a refuelling, water fill and consumables cache (for example, retardant foam and hose) area associated with the parking area
- a mechanical servicing area associated with the parking area
- toilets.
- You will need a minimum of eight landline phone connections, command channel radio coverage, mobile phone coverage, and satellite up/down link facility for communications, and IT and computing equipment sufficient to service the needs of all units.

Staging areas

If you set up staging areas – which is highly likely at a L3 incident – each staging area will need:

- check-in check-out facility
- communications – command channel and appropriate tactical channels, satellite phone, mobile phone if possible, satellite IT connection
- supply cache for consumables (for example fuel, water, foam, retardant, hose and food)
- briefing area with maps display (weatherproof)
- parking area
- good access, sign posted, easy to find (in the dark)
- lighting and power generation
- toilets.

The Logistics Section will get you this equipment – it is the job of the Facilities Unit to get it and ensure it works. It is the responsibility of the Staging Area Manager (Operations) to manage the facility once established.

The importance of organisational structure

The basic tenets of AIIMS are:

- Span of control – any manager can only deal effectively with five to seven direct reports.

- Functional management – the Planning, Operations and Logistics sections all do their own part and don't duplicate or get in the way of each other.
- Management by objective – Define the outcome and everyone works toward its achievement in the desired time frame.

The IC is at the head of the AIIMS organisational structure. The objectives that are set can only be achieved if the appropriate structure is in place and adequately resourced to enable the team to accomplish the work required of it.

Setting the structure and ensuring that it is resourced to meet the potential demands of the incident is a major responsibility of the IC. Establishing the structure and resourcing its needs must happen early in the incident's history. Team effectiveness and the maintenance of operational momentum can only be achieved if the team has the resources it requires.

The IC's job, in concert with the IMT, is to gain a rapid appreciation of the ***potential*** of the incident (not only the current reality) and rapidly set up an appropriately resources structure to deal with that ***potential***. The IC then continuously monitors and projects the adequacy of that structure and it's resourcing to ensure that the team can continue to deal with the incident as the incident increases or decreases in complexity.

The AIIMS structure and associated competencies of the AIIMS roles have been developed to make this process as simple as possible. It allows the IC to expand or collapse the structure and resource levels without having to micro-manage the details of what is necessary in each role.

Guidance concerning the resource levels required of the AIIMS structure at a L3 incident is set out in Appendix 1.

Taking on the Incident Controller position

The IC and the day job

You will be an IC on occasion. You will have a full-time job in your normal daily employment. You cannot do your day job while you are an IC. Your normal day job will be there when you get back. The organisation that you work for understands your absence. It will compensate and make allowance for you.

Your full attention and commitment is required as an IC. You demand this of every individual that is working in the team. Decision time lines are too tight and the consequences of poor decision making are too great to allow yourself to lose focus by dealing with day-to-day business.

Legal responsibility and accountability

As an IC you are sent to and appointed to manage an incident on behalf of the Hazard Management Authority (HMA) as defined in the *Emergency Management Act 2005* and the *Bush Fires Act 1954*. You are responsible and accountable for everything that goes on at that incident while you fulfil the IC role.

You need to be absolutely sure of:

- Who you are working for. This must be an individual person nominated and named by the HMA. You can only have one boss.

- The name of this person should be in the written delegation of responsibility that is provided by the HMA and accepted by you when you arrive at the incident. Maintain regular contact with the HMA representative to ensure you have good situation awareness of the external environment (see PESTLE).
- This delegation should be revised as needed. This is particularly the case when an Operations Area Support Group (OASG) is established by the HMA and your reporting structure changes from the local representative of the HMA, for example the District Manager to the Operations Area Manager as set out in *Westplan Bushfire.*
- You should also ensure that it is recorded when you cease to carry these obligations (end of shift and end of tour).
- The legal bounds of your authority. This is particularly pertinent where fire incidents occur across several tenures or jurisdictions.
- A thorough understanding of your authority, responsibility, immunity and associated limitations under the relative Western Australian statutes, especially the *Bushfires Act 1954*, *Fire Brigades Act 1942*, *Fire and Emergency Services Authority Act 1998* and the *Emergency Management Act 2005* (and their successors).
- It is also a point of careful consideration when operations such as 'evacuations' are planned. The IC is responsible for requiring it to happen but the Western Australian Police Service is responsible for carrying out the operation. You must be aware of your legal obligations concerning the safety and welfare of evacuees and the safety and security of the property they have been evacuated from.
- You need to be aware of the torts (wrongs) under common law regarding negligence and the 'duty of care' and 'standard of care' that might be expected to be owed by an IC to a plaintiff. An understanding of the defences associated with these torts is also necessary to make informed judgements; that is: reasonableness, proximity, social utility, the ability to foresee harm and the significance of its consequence, and the burden (such as the cost and inconvenience) in mitigating such harm.

Delegation of responsibility – appointment from HMA to IC

As an IC, you and your team will be working for and reporting to a person representing the Hazard Management Agency (HMA). This could be a DEC District Manager, Regional Manager or their delegate (duty officer), local government official, or officer from another HMA. If an Operations Area Support Group (OASG) has been established you will be reporting to the Operations Area Manager.

At the beginning of your assignment to an incident the person you are reporting to and the arrangements for making those reports needs to be clearly stated and understood by both parties. This becomes very important at multi-agency fires or fires that surpass the normal 'agency arrangements' for dealing with bushfires. Neither the IC nor the HMA can afford the IC to be taking instruction from more than one source.

The HMA will have some objectives in mind for managing the incident. For example, minimise fire size, contain within specified bounds, control by a certain time or prevent impact on a particular value or asset. There may be legally binding management plans in place for the area affected by the incident. They will be aware of some issues that will be pertinent to incident management that they want you to pay particular attention to, for example Alcoa conveyor belt is worth $1millon per

kilometre and $1 million per day in lost production, the hairy nosed bark scratcher is the only known population, or closing the highway has an extremely high impact on commerce. They might have some limitations that they want you to manage within, for example resources available are limited to 'x' for the next four days, projected incident costs are $1.2 million and they want to track financial progress, mechanised fireline construction is not permitted in a certain area, or the incident will be responsible for *initial attack* operations within the local jurisdiction.

A delegation of responsibility from the HMA/s has two purposes:

1. provide you with an instrument of appointment that empowers you to apply the legal obligations and responsibilities of the pertinent legislation on behalf of the HMA/s
2. provide you with a clear statement of performance expectations and operational limitations.

Delegation and responsibility

As an IC you have been delegated responsibility to act on behalf of the HMA within the legal framework of the state. In managing the combat of an incident it is necessary for you to delegate various AIIMS roles and their associated tasks to others. In doing so, you also delegate the authority to those people to undertake those roles.

In delegating a role you assign a responsibility for which they are accountable to you. However, in doing so, you need to be aware that the ultimate responsibility and accountability rests with the IC for all things that are done or not done at that incident.

Delegation requires that the person being delegated to has the competence (knowledge, skills and experience) and the willingness (drive and motivation) to undertake that delegation. As the IC you need to be confident that both of these criteria are fulfilled by your delegates. Absence of either competence or willingness will lead to your expectations being unfulfilled and consequent ramifications for incident management outcomes. You may have to modify the scope of the delegated task or put in place monitoring and reporting requirements to ensure any deficiency in competence or willingness are accommodated in the way you supervise and manage the delegation.

Global situation awareness

It is useful to participate in the daily teleconference each day (see *FOG 82 - Procedures for daily teleconferencing calls*) to maintain awareness of what else is going on around the state and the resource constraints that may affect your incident.

As the IC your awareness of the incident must extend far beyond the potential fire behaviour, the extent of the fire ground and the resources applied to incident combat. Situation awareness (SA) needs to focus on those issues that are likely to expose the team, the community, the environment or the HMA to risk.

Your situational awareness has more dimensions which are described by the acronym PESTLE.

PESTLE

- ***Political*** environment surrounding the incident including local, regional and state and the internal organisational politics of the HMA and other organisations involved.

- ***Environmental*** awareness concerning assets impacted by the incident including conservation assets, health issues, water and airshed issues.
- **Social** impacts of this incident on the local community and other publics. Issues such as closing schools, bus routes, information dissemination, evacuation and welfare centres, interruption of traffic and social events will need to be dealt with proactively.
- **Technical** or operational awareness about how, where and under what conditions the incident is being combated. This is all the 'fire stuff' and includes fire fighter safety.
- **Legal** risks associated with decision making, the consequence of which may impact you, other individuals, the team, the HMA, support agencies or the government.
- **Economic** impacts on the community, the HMA, affected industry or commerce.

A regular and quick risk assessment using the PESTLE acronym is a very powerful tool to keep the IC's awareness maintained on a global scale. Using this acronym to gather intelligence from other IMT members and to convey a full SA to an incoming IMT is also helpful.

Figure 1 If an IC does not pay attention to the PESTLE environment it is likely that the components of PESTLE will grind the IC to dust.

You will only be able to maintain this 'global' awareness if you constantly gather intelligence from as many sources as you can. Don't focus entirely on the operational incident activities and issues. Make sure you are regularly talking to people from the contributing organisations (including the HMA) and people in the local community. Be proactive – ring them – don't wait to be contacted by them. By the time they contact you, they are usually cranky because you have not been talking to them. Remember

– in their world, their issues are always the most important – you need to keep abreast of them and keep feeding them information and comfort.

Competence and negligence

If you don't think that you are competent to undertake the role – you should make this known and decline the appointment or seek to be replaced. Know your limits.

Competence

The people working for you should come to you with a minimum competence for example a sector commander (SC) should be a competent SC .You should use your discretion to place the most experienced/competent SC on the most difficult sector.

If you subsequently doubt that competency, or you have reservations about a person's competence to deal with the role or situation, you need to act on that information. It is within your power to change a person's appointment or tasking to an area that they would be more comfortable with or suited to. You may also provide additional supervisory capacity to minimise the ramifications of limited competence.

Accusations of negligence could result from you appointing people to tasks for which you know, or have reason to believe, they are not competent.

Mobilisation of incident personnel

Arrangements within DEC are that the second shift will usually be a pre-formed team (PFT). Even if it is not a PFT, the IC has some work to do before arriving at the incident.

You need to gather situational awareness so that you can act and react quickly when you arrive.

The following tasks are recommended for incoming ICs:

- On being mobilised by the relevant duty officer, insist on a teleconference prior to departure between yourself, the incumbent IC, the regional duty officer and the state DO. Subjects to be addressed are:
  - situation summary including other fires in region
  - who is my boss
  - is there an ISG and or an OASG
  - what extraordinary reporting arrangements are required (if any)
  - who are the IMT (if not a PFT)
  - where is the ICC and Operations Point and what facilities do they have/ need
  - what resources are committed to the fire currently
  - what resources are available to me on my shift
  - what resources that are available to my shift have 'local knowledge' – you should insist on local knowledge in management support, information, supply, resources and situation units (at least)
  - what are the travel arrangements for incoming resources and when will they be available

  - what is my responsibility for initial attack in the area.
- Bring it to the attention of the delegating authority if you have concerns about the resources or reporting arrangements. Make a note of this, and the response, in your personal fire management diary.
- If possible, you, your Planning Officer and Logistics Officer should get there as early as possible and get a 'feel' for the incident and the structure before retiring to bed ready to take over the next shift.
- You should then talk to your incoming IMT to provide them with the same level of situational awareness that you posses.

Short term delegation of IC role

There may be times when you are unavailable to the rest of the incident team (such as attendance at a community meeting, a minister visiting or sleeping). It is essential that there is ALWAYS someone in charge and in a position to execute the IC responsibilities, especially if decisions need to be made. The role should be delegated to the:

- deputy IC if available
- Planning Officer if deputy IC not available.

When making the delegation:

- communicate to the delegate the limitations of the delegation, and the likely decisions he or she may need to make
- let your IMT and the HMA representative (boss) know who the delegated IC is in your absence.

Incident Controller as manager

Delegation of functions by IC

At anything other than a Level 1 incident the IC will need to delegate functions and roles (for instance operations, planning, logistics and safety).

In making a delegation you should:

- be aware that you hold these functions until delegated
- delegate early
- delegate the entire function where possible
- specify levels of authority, responsibility and decision-making that are delegated
- let people know inside and outside of incident of the delegations – the incident structure chart or incident communications plan are good tools for this
- ensure competency for the appropriate level of incident
- ensure that appropriate checklists and *Aides Memoir* are made available for each major function
- ensure that someone *is delegated the* responsibility for each of the AIIMS roles. A person can have more than one role responsibility

- ensure that when delegated, these responsibilities *are* adequately resourced
- use the AIIMS structure to ensure appropriate scope of each role
- be aware that the IC has responsibility for facilitating and encouraging lateral communications and relationships between roles and functions
- ensure that connections are maintained between shifts and changes of personnel
- be aware that at multi-agency incidents this is a significant role and demands considerable effort and attention from the IC.

Internal team performance

As IC you are responsible and accountable for your team's performance.

One of the primary roles of an IC is to monitor the performance of the team. The compressed and critical timelines associated with incident management demand that outcomes be achieved in a timely fashion and to the desired standard. A delay or less than desirable outcome in one area can have significant ramifications for the work of other team members and the overall achievement of incident management objectives. The worst of repercussions can be injury or death.

Share your expectations of performance – let the team know what you expect.

Specify the measures of performance including:

- reports delivered
- deadlines met
- outcomes achieved
- stress levels observed
- welfare of team
- effectiveness of communications (internal and external)
- degree that unexpected situations are occurring
- comfort in the affected community and their confidence in the team
- level of situational awareness (PESTLE).

Your responsibility is to ensure that outcomes and deadlines are clearly understood, that individuals are committed to the achievement of those outcomes and that you hold them accountable for that achievement.

This can be done to some extent via the reporting arrangements in place under the AIIMS structure. Regular meetings with IMT will enable you to keep abreast of progress. However, this formal management will not provide you with an awareness of the stress levels across the incident, how well the various leadership positions in your team are functioning, whether the resourcing in place is adequate, provide you with an appreciation of the competency of the people involved, or provide you with a variety of perspectives and opinions (other than those of your direct reports).

An effective way that you can maintain a truly trustworthy appreciation is to ***walk around and talk to people***. You need to do a lot of this and do it regularly.

This walk and talk provides you with an opportunity to reinforce the performance that you require and make sure that individuals know they are accountable. A supportive

comment, a 'well done' here and there, a critical question, a redirection and just being there and available to your people are all powerful motivators to performance. Your ability to provide assurance and optimism in times of stress is of great importance in order to achieve high performance outcomes from your people.

Where required this is also an opportunity to take immediate and effective remedial action and provide timely authority to 'fix' things that need fixing.

The IC needs to act quickly if problems in performance are identified. Change your leadership if that is necessary, shift your Operations Point or ICC, reorganise your resources to meet the needs of various parts of the incident and demand whatever assistance you need to support the team.

Team performance can benefit greatly from *After Action Review* (described in the DEC *Fire Operations Guideline 31 (FOG 31)*). Each IMT, section or unit of your structure should take some time at the end of each shift to review their daily performance and learn from it. At the end of your team's tour of duty your IMT and unit leaders should meet to review their performance at the incident and identify the lessons for improvement. This small investment in time and reflection will provide significant dividends in the following shifts and at the next incident.

Prioritising deployment of resources

Resources will always be limited. There will often be times when what is asked for is unavailable. At an incident there is usually more than one objective to achieve and committing to one course of action can be at the cost of another. Prioritising is essential.

Your situation awareness will determine how well you can do this. PESTLE can help you ensure you consider all factors. It does not ensure you make the right decisions.

You will require excellent communications with the people in the field to make sure you have the right information to make decisions, and to convey the outcome of your decisions. It may be necessary to instruct personnel to abandon the work that they have been undertaking to go to another area, resulting in loss of assets or values. Getting this message across correctly is important for morale and continuity of operations.

Management of safety

The IC is responsible for the safety of all incident personnel and the public that may be impacted by the incident and suppression operations.

Within DEC there is a safety culture that reinforces each individual's obligation to keep themselves and their workmates free from harm or injury. When working at multi-agency fires this presumption cannot be made for non-DEC personnel. People from outside DEC have differing perspectives on safety, what is safe and their obligations to others about safety. They may be more prone to risk taking or they might believe that it is someone else's obligation to look after their safety. They may also be more risk averse.

The IC must be aware of the fact that the understanding and commitment to safety among incident personnel may be variable. In determining the supervision structure applying to the incident the IC should consider the supervision necessary to maintain an acceptable level of safety in the fire suppression work environment. Personnel with less experience in fire suppression operations need closer supervision than those that are experienced. This is particularly pertinent to personnel like contract

machine operators; logistics support personnel or some rural brigade members (particularly if they are in unfamiliar fuel environments).

The IC can appoint a Safety Advisor. This role is not about enforcement of safety standards or procedures. The responsibility for creating and maintaining a safe working environment always rests with the individual and their line supervisors. The Safety Advisor needs to address the validity of this assumption with reference to non-DEC personnel by bringing to the attention of line supervisors (individually and at briefings) that safety culture may not be as well established among some personnel. The Safety Advisor role looks at strategy and tactics to ensure that safety is not compromised in planning suppression operations or in the heat of battle. The role also audits indicators of a safe working environment on the fire ground.

The Safety Advisor works with the Operations Officer and the Planning Officer in formulating sector plans for the Incident Action Plan (IAP) and to ensure that LACES (**L**ookouts, **A**wareness, **C**ommunications, **E**scape routes and **S**afety zones) is attended to and mitigations are in place for any potential LACES situation.

Public safety has three main considerations for the IC:

1. road users
2. communities and residents
3. information services.

Bushfire incidents are likely to impact on the public road system. Users of this network (fire fighters and the public) are vulnerable to the impacts of fire and smoke. Fire fighters using and working on these roads can be put at risk in poor visibility conditions by passing traffic. These issues are therefore a focus for IC safety considerations.

Access management on public roads needs to be proactive, well planned, well communicated and well resourced. Access restrictions are a major consideration in any large fire event. Communicating this information to the public is critical to effective access management. The Information Unit is a vital component in implementing this strategy.

Residents whether in communities or on properties can find themselves in unsafe situations if threatened by an advancing fire. Fire appreciation and prediction should constantly monitor this vulnerability. Pre-suppression work around these assets to harden them and targeted provision of information to residents needs to be in place well before (several shifts) these assets are threatened. It is not unusual to dedicate a functional division in the Operations Section to community protection. This division works closely with the Safety Advisor and the Information Unit to prepare the community for the passage of bushfire.

Providing a community with information is a critically important strategy for achieving community safety. A community that is ill-informed feels unsafe. Unsafe people tend to feel they have no control and exhibit an emotional response to incident leadership, often expressed as frustration, anger and criticism. Individuals in such a community can be very distrustful and antagonistic and take actions that may place themselves and others at risk. A community in this state of unrest becomes a community that demands a lot of resources to manage. Alternately a community that is kept well informed and is force fed information, feels safe and exhibits behaviours that reflect their trust in the incident management leadership, are accepting of the team's

competence and are willing to assist and comply with the needs of incident management.

Coordination of non-combat activities

Logistics and planning functions underpin the successful implementation of operational activities. It is the nature of specialists in each work area to concentrate on their own responsibilities. This can be at the expense of people in other areas. The IC must ensure that the activities of the AIIMS sections support each other, and that they share information and resources.

Lots of interaction required

An example is identification of who is coming off shift, when they will finish shift, where they are going to rest, how they are getting there, and how they will be fed. The Resources, Facilities, Ground Support and Catering units are all involved in this end of shift management, and there is great potential for ineffective and inefficient shift changes if coordination does not take place. Coordination with service providers external to the incident structure (such as accommodation, catering and transport) must also take place.

Interdependent timelines

What one group does impacts on the work of others. Even with the best of intentions timelines can slip. Keeping everyone informed is critical. Only the people in each unit know the consequences of broken timelines, and they can compensate only if they know what is happening.

Liaison with agencies

The IMT is charged with the safe and effective combat of the incident. To achieve this outcome may require the involvement of other agencies. Some agencies fill combat roles and others fill support roles. It is vital that engagement with these agencies is continuous and of high quality. The rules of engagement with these agencies need to be well understood by the IMT and the agencies involved so that command and control structures are not compromised.

The success of this engagement will have a material effect on incident management operations and contribute significantly to the level of confidence in the IMT expressed by assisting organisations and the local community. The effectiveness of this interaction will influence the judgments that these groups make about the professionalism of the IMT and the jurisdiction it represents. Whether the incident is judged as a success or failure will depend to a large degree on the perceptions of these groups and their experiences during the incident.

The IC should establish an Incident Support Group (ISG), as set out in *Westplan Bushfire* as soon as possible. The IC should dedicate the deputy IC to chair this group. Representation on the ISG is responsive to the needs of the incident but should involve members of agencies and organisations involved in combat and in support of the incident, including local community representation, for example other fire authorities, police, power utility providers, Telstra, reticulated water utilities, departments involved in community welfare, local government, St Johns Ambulance, Red Cross and Salvation Army.

This group does not have a command or control function within the incident. It acts as a conduit for information and tasking from the incident into the various support

agencies. It provides a forum for the exchange of information and the coordination of effort. This group is tactical in its focus.

A Liaison Officer role can be established to ensure effective communications between particular agencies and the IMT. The Liaison Officer works for the IC and has a facilitation role. This role is particularly effective for some combat agencies where the workload associated with managing their resources into, around and out of the incident is quite demanding, for example police and bush fire brigades. The Liaison Officer should attend ISG meetings.

When an Operations Area Support Group (OASG) is established it may have a similar representation of membership to the ISG except that they are usually senior officers of their organisations. The group has a strategic focus and exercises a command and control function. The IC reports to the OASG (through the OAM). The OASG sets priorities for resourcing between incidents, provides coordination of effort between incidents within its jurisdiction and reports to a higher level structure that is undertaking similar functions at a state level.

Unified Command

A single Incident Controller has overall authority at an incident. The IC has the responsibility for decisions made and is accountable for those decisions. However, the IC should seek to involve HMA and combat agency commanders in decision making, and the creation of a Unified Command group provides a structured means of doing this.

There may be more than one HMA involved in the 'incident', and there may be multiple combat agencies present.

Figure 2 *The IC sits in the centre of a nested decision making environment that include the members of the IMT and the unified commanders of combat agencies. These positions draw on and provide information to the Incident Support Group.*

Unified Command can be achieved by establishing a cadre of commanders from combat agencies into the decision making circle of the IMT. These commanders must have the authority to make decisions and commitments on behalf of their agency. These commanders do not have line authority to any resource on the fire ground but are relied upon to assist the IMT in making decisions and judgements that incorporate the requirements and limitations of the combat agencies they represent. They are present at all IMT meetings. They also constitute a direct line of communication into their agency and replace the Liaison Officer function where this is concerned.

At a L3 incident there is an IMT, and there will also be HMA/combat agency commanders. The latter assemblage can be referred to as a 'Unified Command group'. The IC can then consult with the IMT **and** the Unified Command group on objectives and strategies, with implementation taking the path of the AIIMS operational structure (as described above) either through or with the support of those agency commanders. The Unified Command group gives agency commanders the position within the AIIMS structure they require to contribute to incident objectives and strategies without compromising AIIMS command structures or systems.

Integration of multi-agency personnel into the incident structure

There are three main reasons for integrating multi-agency resources into incident management:

- access to valuable local knowledge
- access to additional competent resources to assist in combating the incident
- improved effectiveness and efficiency of integrated incident activities.

Management of resource integration

It is always easier to work with people you already know, and with people who have a shared culture, such as your own agency personnel. Creating a multi-agency organisation requires conscious effort on the part of the IC and the IMT to:

- ensure that resources from different agencies are appropriately tasked – check both equipment capabilities and personal competencies
- encourage integrated operations – best person to the appropriate role (agency blind)
- delegate up to people's capacity where possible (consistent with best overall incident outcome)
- provide thorough briefings to ensure that shared understanding is achieved (when making appointments into the incident structure you need to be cognisant of varying agency cultures and work practices)..
- facilitate respect and ethical behaviour
- be deliberate and public in acknowledging the presence of all agencies and their personnel in the structure – your stamp of approval reinforces their position.

Local knowledge

Combat agencies involved in incidents, especially local FESA, local government authority (LGA) and bush fire brigade (BFB) officers possess an understanding of the fire environment in which the incident is occurring and the community that is affected. The IC should endeavour to integrate these personnel into the incident management structure in positions where these strengths can be utilised. This is particularly effective in the Situation Unit, Information Unit and the Operations Section.

Local personnel have knowledge of the location, the condition of structures and residences, fuel conditions, fire behaviour and local weather that are invaluable to incident management. They have an appreciation of who the local community leaders are, what suppression and support resources are available and their capabilities and levels of competence.

Local BFB personnel have a deep commitment to their communities and expect to be involved in decisions that affect those communities. The local Chief Bush Fire Control Officer (CBFCO) should be involved in IMT decision making. This can be achieved in a number of ways.

The CBFCO can enter into an arrangement with the IC where all decisions about incident management are made with consultation. However, only one person (the designated IC) is responsible and accountable. This requires a great deal of discipline on behalf of both parties, the rapid development of trust, advanced

diplomacy skills on behalf of the IC and is dependent on both officers being located together ('joined at the hip') at all times. (See Unified Command)

A knowledgeable local BFB officer can be appointed to the Situation Unit to assist in the development of predictions and resource allocations in the incident action pan.

A knowledgeable officer from local government can be appointed to work with the Information Services Unit to develop and implement community information strategies and access local communication networks.

The CBFCO or his nominee can be appointed as a deputy Operations Officer or a Divisional Commander on a division in 'their turf'. The Operations Officer needs to make special efforts to engage and maintain communication with this person to ensure command and control is maintained and no 'freelancing' occurs.

In all these endeavours the IC and their staff must be perceptive of the competency limitations of these personnel as well as their local knowledge. The IC must undertake these appointments with integrity making sure that the responsibility and accountability expected of these personnel are the same as for other team members. Above all it is important to ensure that their experience at the incident is a good one and that they feel relevant, appreciated and involved. This will require at times a degree of diplomacy, patience and strength of character on the part of the team members with whom they are working.

People appointed to positions within the structure must:

- be competent in the role
- work the same shift lengths as the rest of the team
- accept the authority and responsibilities of the role and comply with the reporting structure within the incident.

Accessing using and integrating military service personnel

Neighbour to neighbour local arrangements may operate in association with Australian defence infrastructure.

At very large incidents it may be necessary to access military personnel or other Australian government resources. These resources are in the federal jurisdiction and can only be mobilised by the State Emergency Coordinator under arrangements in place between the state and federal jurisdictions for that purpose (State Emergency Management Policy (SEMP) 4.9 *Australian Government Physical Assistance*).

If resource requirements exceed that which can be provided within the state the State Emergency Coordinator can access national resources.

If Australian government resources are assigned to an incident the IC will be required to establish a Liaison Officer to work with the military. The military should only be tasked within its capability and competence. This usually does not include fire line suppression operations. They are usually used in support roles commonly associated with communications or logistic support.

The military will work within its own command structure. Tasking of the resources is achieved via the Liaison Officer and should be framed as an outcome that is required and not a specification of how that outcome should be achieved, for example, 'need to feed 300 people at location "x" three times per day'.

Using the military must be closely monitored as the use of the military implies that the state is unable to provide resources from either the public or private sector to achieve the outcome.

Reporting upward, outward and from below

Effective incident management is dependent on the flow of accurate information that is timely for its purpose. A large part of the responsibility of an IC is that of a communicator. Most of this communication is undertaken using 'unofficial' channels. There are, however, various formal communication events that take place in the flow of an incident that are important for the IC.

Formal IMT meetings are part of the information flow. A suggested agenda for an IMT meeting is set out in Appendix 2 (see FOG 89 *Agenda for Incident Management Team (Planning) Meetings* for the current version). They should occur at least twice per shift at times that ensure the development of appropriate strategies and tactics and the incorporation of these expectations in an IAP that can be disseminated in time for shift change briefings.

IMT meetings have three broad purposes:

1. The first IMT meeting should occur soon after shift change and be focussed on sharing of information among the IMT and ensuring that the implementation of the current IAP is progressing as expected.
2. The next IMT meeting is held to finalise the strategies and tactics to be employed in the coming shift that need to be documented in the IAP for that shift.
3. Both meetings should address the strategic planning for the next three shifts to accommodate issues that need lead time such as managing fatigue and being prepared for potential escalation/de-escalation in incident complexity.

Regular, scheduled reports that are accurate, complete and on time made by the Operations Section to the Planning Section are the basis for a large number of decisions including:

- those made within the incident:
  - logistics – accommodation, catering, transport, provision of consumables, machine and plant
  - planning – predicting resource requirements, resource allocations, tasking and tracking, validating fire behaviour prediction versus actual, communication planning, community information and media
- those made by agencies supporting the incident:
  - resource planning, work programming and priority setting
- those made by reporting structures above the incident:
  - priority setting, resource allocation and media.

The sector situation report (SSR) is the basis for compiling critical incident information and is used to maintain situation awareness and information required to plan continuing suppression and support operations.

The timing of the SSR is dove-tailed to the timelines required for information reports leaving the incident to decision makers above the incident. The numerous SSRs at an incident are compiled to develop an incident situation report (which is sent to the

OAM or the agency manager). These reports can be compiled to develop regional situation reports which are used by decision makers above the incident to prioritise between incidents and plan for supporting incident operations.

Timely, comprehensive and accurate reporting upwards provides sufficient information for decision makers to act in a timely manner without recourse to guessing or to badgering the incident or components of the incident for additional information. It is in the IC's best interest to ensure that this reporting occurs on time.

A short checklist for information going out of the incident is:

- What is the incident status now?
- What is the predicted incident status? (probable and worst case scenario)
- What are the major risks/consequences? (PESTLE)
- What resources have you got?
- What assistance do you need?
- What have you lost?
- What have you saved?

The IC needs to make a special effort to keep the agencies and organisations that are assisting with the incident well informed. Even when the reporting structures described earlier make this information available, it is well worth making the effort to contact agency representatives personally and have regular chats.

ISG/OAM issues:

- Information sharing is essential
- Each needs to know what the other is doing
- Don't do what the region/operations area and state-level structures can do better, for example media, inter-government agency resource acquisition/ coordination and the establishment and coordination of community welfare centres.

Maintaining flexibility within physical, financial, time and resource constraints

Seldom does everything go as planned at incidents. For example, access can be limited, travel times greater than expected, bridges fail, fire line production rates are slower than planned, escapes from fire lines occur, meals don't arrive, people get lost with supplies or information, people get sick, equipment breaks down, weather is different to forecast, resources don't arrive on time and aircraft can't fly due to smoke.

Flexibility to adapt to situational changes requires that you have:

- a ready reserve of fire fighting resources
- strategic positioning of resources
- prediction/forecasting and option development
- fall-back positions/ alternative strategies
- an open mind to alternate possibilities.

Never commit to an all or nothing strategy – always have alternatives and fall-back options prepared

The IC needs to be expecting the unexpected. Many of these unexpected events have occurred in the past. They are not new. Study past incidents and learn from them. The IC has to ensure that Planning, Logistics and Operations have sufficient resilience to accommodate these 'unexpected' events without having serious or life threatening implications for incident management.

The IC needs to cultivate 'mindfulness' about what might happen. This is epitomised by the phrase *"yes but, what if ..."*. You need to constantly challenge the plans and strategies of your IMT. Ask them the *yes but* questions.

Yes but what if ... happens?

How will we ...?

You need to encourage your IMT to take the same mindful approach with their people (see Mindfulness).

In large incidents the resources available to you, particularly operational personnel and equipment, rapidly hit an availability plateau. There are no more resources to be provided. You have to work with what you have. This is when you need to think very clearly about what is really possible with the resources you have and what is simply hopeful. Mistaking a hopeful action for a certain one will lead to significant failures, unsafe situations, demoralisation and loss of momentum and resilience.

Pressure can be applied to an IC from above to have a go at a 'hopeful' strategy. This is usually due to the desire of the jurisdiction to avoid some perception of failure. You will invariably have a much more reliable awareness of the situation than a 'jurisdictional' decision maker some distance from the incident. The IC needs to have the courage to resist the temptation to 'act in hope' and maintain a perspective that enables clear, informed and responsible decision making. The IC also needs to be persistent in sharing this perspective with those above the incident.

Monitoring resource allocation against incident objectives

The IC has a critical role in assessing the effectiveness of resourcing levels against the achievement of incident objectives. The early development of an incident is usually associated with a resource build up to match the incident potential. This resourcing level is maintained until the incident is controlled at which time resource levels may change in quantum and type as the incident changes focus from the control to the recovery phase.

Downscaling of resources at a particular incident is a significant decision that is the responsibility of the IC alone. In doing so the IC is required to discuss the needs of the incident with the jurisdiction in charge, for example the Operations Area Manager, and the regional and state duty officers. This is necessary to enable these officers to address the needs of other incidents that may be running and be able to re-allocate resources to these incidents or stand them down and allow them to return to their home stations.

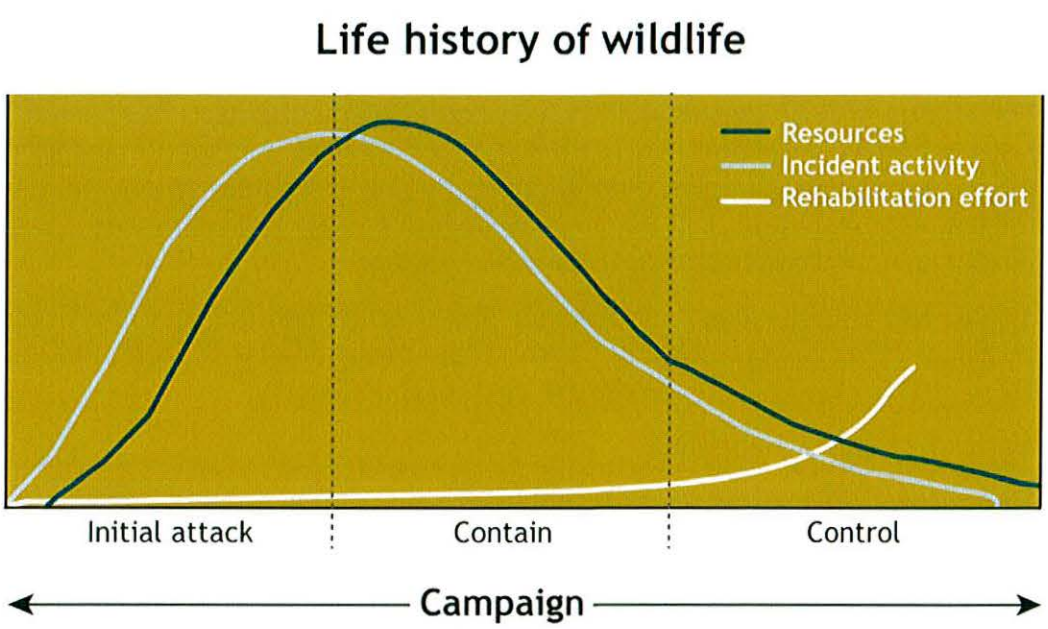


Figure 3. Each incident has a life history. An escalation phase followed by containment, control and recovery/rehabilitation. Each phase has a resourcing requirement that needs to be forecast and met in a timely fashion to ensure effective incident management and minimisation of risk.

Indicators to watch for when monitoring the resources at an incident include the cost or quantum of the various components, particularly staff, crews, plant, aircraft and contract expenditures. This will give you an appreciation of the relative worth of the various components and which components are making an effective contribution. If the staff-to-wages ratio gets large or the staff-to-aircraft ratio is creeping up these may be indicators of a decision point. If there are a lot of machines on site but little machine work being done it may be time to downsize. The IC can make judgements about the right time to downsize the incident in one of these components relative to the contribution they are making to achieving incident objectives and the ongoing potential of the incident. The decision to demobilise resources needs to be carefully balanced with the potential of the incident to re-escalate unexpectedly.

The adequacy of resourcing levels and their contribution to incident objectives should be a topic of discussion at every IMT meeting.

Development of incident personnel

Large incidents are not the place to train people. However, large incidents are tremendous opportunities to develop and hone the skills of people who already possess degrees of competence in AIIMS roles. The IC's and the leadership that works with them have a responsibility to capitalise on this opportunity.

There are a number of simple tactics that can be facilitated by an IC, including:

- have someone who is learning a role work as a direct assistant or scribe to a competent person (sometimes termed 'shadowing').
- have someone who is considered almost competent in a role coached by a competent person who can catch any errors before they have negative impacts.
- ensure that performance-based evaluations are conducted.
- ensure that after action reviews are conducted.

In many instances a person is not regarded as 'competent' until they have performed a role well. Providing these opportunities must be balanced against the risk associated with the appointment. If an appointment is made then the level of supervision must be proportional to the risk and the perceived competence of the person, and can be varied as performance is monitored.

Development and implementation of the Incident Action Plan

The term Incident Action Plan (IAP) is used generically to describe the plan or plans that are developed to guide the activities of combat and support resources for a defined period of time (usually one shift).

For the purposes of this discussion the IAP will be limited to the content described in Appendix 3 (see FOG 3 *Minimum Requirements for Incident Action Plan*). This content is the minimum that is needed to instruct resources on the fire ground to combat the incident. It does not include all the other plans and documents that are used by Logistics and Planning sections to undertake their work during the shift.

Care should be exercised to keep the IAP to the minimum required to facilitate effective suppression operations. The IAP should be concise and directive. There is a tendency, particularly as the incident progresses over time, to add components to the IAP. Each component added consumes resources to manufacture and may detract from the essential information contained in the IAP.

As an IC it is your team's responsibility to implement the current IAP and to develop an IAP for the next shift. This IAP has to be congruent with the incident management objective/s (which preferably do not change markedly over the entire incident's life) and the medium term (two or three shifts in front) forecasts for incident development and resource availability. It should be perceived as a 12-hour link in the chain to success.

The IC should also maintain a plan for the medium term that ensures a consistent approach to achieving the longer term outcomes of incident management. This will involve strategic predictions of incident behaviour, community concerns, media interest and politically sensitive issues. Regular use of the PESTLE framework will ensure that all bases are covered. Regular review and sharing of this plan with the IMT will ensure that unexpected situations do not occur and that trigger points for decision making are set well in advance to allow adequate lead times to accommodate developments.

Review the current strategy and predictions to ascertain if they are still relevant and reliable. This should take place within the first two hours of the shift.

Confirm the strategies and determine the resources required for implementation.

Prioritise and schedule the actions that need to be undertaken on each Division /sector based on considerations of incident development, forecast risk, potential

consequence, resource availability and fire fighter safety. Having done so, decide on the tactics to be applied on each sector and what resources are needed and/or available to undertake the work. This is achieved by Logistics, Planning and Operations consulting at planning meetings in the third and fourth hour of the shift.

Construct the plan

Planning Section constructs the plan in liaison with the other sections and prepares a master copy for approval by the IC.

Approve the plan

The IC approves the plan. There should be no surprises for anyone in the IMT. Approval should occur with enough time to allow the distribution of the IAP and the briefing of incoming personnel.

Publish and distribute the plan

The plan must be published in sufficient quantity for every supervisor at the incident and every combat and support agency to have a copy. Publication should be complete 2 hours before briefing time to allow time for distribution.

The plan must be distributed to briefing points in time for personnel providing briefings to familiarise themselves with the content and prepare for the briefing. This should be a minimum of 30 minutes prior to briefings being undertaken.

Brief the plan

Briefings should conform to the SMEAC (situation; mission; execution; administration and logistics; command and communications) agenda. Ensure that safety is given prominence in the briefing. Ensure all resources are assigned. Division and Sector Commanders should then brief their crews on the detail of their tasking and resourcing. (See also Briefings.)

Implement the plan

In implementing the plan the Operations Section is expected to maintain a continuous dialogue with the rest of the IMT concerning progress, prediction versus actual and resource status. This information is essential to allow the IMT to prepare the IAP for the next shift and maintain situational awareness across the incident.

A schedule of planning tasks and meetings is set out in Appendix 4 as guidance to the tasks and scheduling that is necessary to get an IAP prepared, published, distributed and briefed.

Communication of intent

Commander's intent is a concept born in the military:

> The commander's intent describes the desired end state. It is a concise statement of the purpose of the operation and must be understood two levels below the level of the issuing commander. It must clearly state the purpose of the mission. It is the single unifying focus for all subordinate elements. It is not a summary of the concept of the operation. Its purpose is to focus subordinates on what has to be accomplished in order to achieve success, even when the plan and concept no longer apply, and to discipline their efforts toward that end.[1]

[1] Shattuck, L.G. (2000) Communicating intent and imparting presence. Military Review, March–April, pp 66–72.

For the IC communication of intent involves making clear the desired and undesirable end states. The desired end states are usually reflected in the incident objectives and any intermediate objectives. These serve as the measure of any operational activities. Whilst activities continue to contribute to the objectives the actions may be supported. However, commander's intent should also identify the anti-goals or situations and conditions that the incident should work to avoid.

Incidents are usually quite fluid and the situation can change in a short period of time. A clearly communicated commander's intent allows decision space for incident personnel to take advantage of opportunities as they arise or to use their initiative to take action when the planned actions are no longer relevant. The basis for this doctrine is to provide commanders with flexibility in how they achieve outcomes within a defined framework or intent.

The IAP needs to strike a balance between detailed instruction and broad intent. Commander's intent is most effectively communicated at briefings rather than in the detail of an IAP. The IC needs to ensure that the balance is right so that all activities (operational and support) contribute to achieving the incident objectives.

Evaluating incident predictions and outcomes

Most personnel at an incident become focussed on the role and immediate outcomes that are required of them. In doing so they do not get the opportunity to lift their heads and peer at the horizon to see if they are still going in the right direction or to look at their wake to see how successful they have been. The IC is in a unique position that can (and must) take the time to critically examine the progress of incident operations against what was planned and expected.

The definition of insanity is doing the same thing over and over and expecting a different outcome each time. If the management of an incident is not behaving the way you expected then there is obviously something wrong in the information or assumptions you used to arrive at that expectation. You need to re-examine that decision hierarchy and apply your hand to the rudder and change the direction of operations to achieve a better outcome. There is very little to be gained by committing an ever increasing quantum of resources to a strategy that is not delivering the desired outcomes. All that can result is a more expensive failure.

To enable an IC to make these assessments requires a constant mental inquiry to be undertaken that asks:

- What did we expect to happen?
- What actually happened?
- Why did it happen?
- Is the outcome acceptable?
- If not, what needs to change?

The IC has to apply this inquiry to all aspects of the incident not just the fire ground operations. Performance in all areas such as public safety, community information, media relations, stakeholder relations, the IMT and their sections all need to be monitored for effectiveness in achieving outcomes.

This process of inquiry should also form the basis of section planning meetings that occur at regular intervals during a shift. Planning, Operations and Logistics all need

to constantly apply these questions to their activities and to keep the IC informed of their findings.

These questions also form the basis of an After Action Review (AAR), which is a very powerful learning process. If at all possible, AARs for each 'team[2]' within the incident should be undertaken just prior to shift change and the outcomes used to guide improvement.

Planning and managing shift changes

The planning and management of shift changes will consume a significant amount of time and resources. Shift changes are a dangerous time. Situational awareness developed during the shift can be lost or compromised. Communication and command can become less effective. The safety environment can be compromised as a consequence and there is a heightened opportunity for injury or death.

Effective shift changes maintain the momentum of incident activities and ensure incident personnel receive adequate rest between shifts. Poor shift changes can totally disrupt incident management, and even result in loss of incident objectives. This subject is dealt with in more detail under the chapter on Managing transitions.

Relationships with community and affected people

A prime responsibility of the IC is to ensure effective interaction with the affected community(s). This will require significant dedication of time and resources from the incident, including the IC. The Information Services Unit will need to be adequately resourced to achieve this outcome.

In dealing with the community, the jurisdiction that owns the incident must be involved. The incident jurisdiction(s) will have an ongoing legacy with the community when the incident team has been demobilised. The incident can provide information and comfort to the affected community about issues associated with incident management operations, predictions and expectations while the incident is running. The incident jurisdiction must be intimately involved in the relationship with the community as the outcomes of this relationship will affect that jurisdiction(s) ongoing reputation and standing in the community and by refection the standing of the government of the day.

The IC must rapidly establish working relationships with the stakeholders involved in this activity. These usually involve the incident jurisdiction(s) (LGAs, DEC, FESA), and community leaders, OASG and agency representatives from support agencies (particularly those involved in community welfare and services, for example Department of Child Protection (DCP), and power and water utilities).

Establishing these relationships will require early intervention by the Information Services Unit and Liaison Officers to identify resources and contacts within relevant agencies and to establish channels of communication and cooperation with these personnel. Where an OASG has been established much of this activity can be achieved through the OASG.

Regular community meetings at locations accessible (times and places) to the affected communities are a vital strategy in achieving positive community relations

[2] In this context a 'team' is a distinct group of people who work together on a common task or function. Examples of teams might be the Operations Section commanders, the Resources Unit, Ground Support runners, or the crew members of a Strike Team.

outcomes. The organisation of such events should be addressed and advertised as soon as possible to facilitate community awareness and participation.

Media, the incident and the jurisdictions

Information that is put into the public domain concerning incidents needs to be accurate, timely and consistent. The Information Services Unit at the incident will generate an enormous amount of information to put into the public domain directly by media releases and/or public meetings. This information is also provided to agencies involved in the incident and to government via a number of ministerial portfolios.

The provision of accurate, timely and consistent information to the media is facilitated by having only one authoritative information outlet that coordinates the flow of media releases, ensures that the information is accurate and that consistent messages are being sent. At large incidents this function is usually accommodated in the 'media management portfolio' of the HMA. In the case of DEC being the HMA, information from the Information Services Unit would be approved by the IC and passed to the department's public affairs managers to coordinate.

The Information Services Unit Leader should be at every IMT meeting.

It is important that the ISG and the OASG understand the arrangements that are in place to avoid these structures duplicating or compromising agreed information dissemination arrangements.

Templates exist for media and community information releases and are used by the Information Services Unit.

At very significant incidents this function may be taken on by the media managers in the Department of Premier and Cabinet.

The worst possible outcome is for a number of different agencies to produce information for media outlets that is inaccurate, inconsistent or out-of-date. This can sometimes occur particularly where the agencies involved want to put an 'agency spin' on the information provided.

Investigations within an incident

Protecting the incident origin for investigation purposes

DEC Policy 19 requires the point of origin to be protected and that fire cause is to be determined wherever possible. Fire Operations Guideline 52 (Suspected Deliberately Lit Wildfires) provides detailed guidance on this issue.

The investigation team may be multi-agency (DEC, Police, FESA) and report to the HMA.

The first IC needs to ensure that the origin is protected from disturbance from suppression operations to enable fire investigators to confidently determine the likely cause of ignition. ICs of subsequent shifts need to ensure that ongoing protection is provided and that cause investigation is undertaken as soon as is logistically possible and safe to do so.

Protection will need to be addressed in briefings and a no-go area physically demarcated in the field (taped off).

Dealing with losses due to the incident

Any loss that is suspected to be due to the incident should be inspected and recorded as soon as it is safe to do so. Losses that involve an unsafe situation on public land, for example burnt out bridges or downed power lines, should have safety mitigations put in place immediately.

Photographic records of damage should be collected wherever possible. Records of interview and any contacts to the incident made by persons alleging an incurred loss should be recorded and filed in the incident documentation. The Situation Unit should be tasked with this outcome and a dedicated resource made available to achieve it.

No liability for loss or damage should be admitted by any person involved in incident management.

Remedial action should only be undertaken by the IC if safety is compromised by the loss. Remedial action should be undertaken by competent and qualified persons.

Evidence of loss, particularly of privately-owned assets such as buildings, fencing and stock, should be preserved until inspections by loss adjuster representatives of relevant insurance organisations have been completed.

Before undertaking any remediation of loss, the incident jurisdiction should be consulted and approval sought to undertake such remediation. This is essential to ensure the HMA jurisdiction understands and accepts its ongoing legal liability for such actions.

Where there has been loss of life, serious injury or significant property loss (such as homes) it is likely people will be affected psychologically. The psychology of loss is complex and intervention should only be undertaken by professional practitioners. An agency may use its employee assistance program (EAP) provider for incident personnel or contact DCP for assistance for others.

Dealing with an incident within an incident

These situations usually involve an incident associated with damage or injury occurring to resources assigned to the incident. A significant safety incident would be an example of such an incident.

When these situations occur it can distract the attention of suppression personnel from suppression operations and may impact on resources available to an incident. To maintain incident combat momentum the *incident within the incident* needs to be quarantined from other incident operations.

An appropriately qualified officer(s), such as a Safety Advisor, should be tasked with the stabilisation of the incident, ensuring the health and welfare of personnel involved, making the site safe, preserving the site for future investigation and collecting information concerning the incident, the people involved and their recollections of what happened. Fire Operations Guideline 78 (Safety Incident at Wildfires) provides detailed guidance on this issue.

The ongoing management of the *incident within an incident* should be transferred to the appropriate authority, for example police or incident HMA as rapidly as possible so that attention can once again be focussed on incident control operations.

All records associated with the *incident within an incident* should be collated and made available to the HMA as part of the incident records.

Documentation issues

Incident management in the modern world is undertaken in a litigious environment. Documentation of decision making and resulting activity is essential to mount a competent defence in the face of a legal challenge.

Documentation also provides a large part of the information inputs to incident reviews aimed at identifying deficiencies in incident management to enable improvement in future and the re-enforcement and encouragement of effective management strategies.

It has proven effective for the IC and other IMT members to be provided with a personal assistant (PA) from Management Support to help ensure actions and documentation are managed, for example the Planning Officer's PA keeps the minutes of the IMT planning meetings.

The Management Support Unit is tasked with collecting and collating the incident record at the completion of every shift and at the end of the incident. Every supervisor in the chain of command is responsible for keeping records of the activities and decisions for which they are responsible.

The IC's role is to constantly encourage the keeping of adequate records, to make it a plain expectation that it will occur and ensure that the incident record is comprehensive, complete, collated and handed back to the incident jurisdiction at the completion of the incident.

Reviewing performance

The after action review (AAR)

The IC should encourage the AAR process by unit leaders at the completion of each shift. A simple 10 to 15 minute reflection by the unit of what was planned, what actually happened, what went well, what needs improving, and how it might be made better next time is a powerful way of rapidly improving performance. Guidance on how to conduct an AAR is set out in Appendix 7 (see FOG 31 – *After action reviews and post incident analysis*).

The end of assignment team review

The IC should insist that the section and unit leaders gather prior to demobilisation and spend a couple of hours reviewing their performance during their assignment. In much the same manner as the AAR improvements should be identified and responsibility allocated to ensure that the lessons learned are applied in the team and can be shared with others in the incident management community.

Most of the issues identified during these end of tour AAR's will be of greatest benefit to the team members themselves. However in exploring some of these issues there may be systemic problems identified that will need to be attended to by the HMA and should be documented and made available to the HMA.

The IC should create an expectation among the incident leadership that feedback (positive and negative) is required to personnel undertaking work at the incident. This coaching is one of the responsibilities of any supervisor in the incident structure.

Managing Transitions

Introduction: Shift changes, handover, demobilisation and recovery

Transitions occur when the responsibility for a portfolio or role is passed from one person to another. Initial attack of Level 1 incidents is usually dealt with routinely by HMAs. Transitions are generally only required when initial attack is not successful. At incidents three types of transitions commonly occur including:

- the inward transition of an AIIMS team to take over an incident from the initial attack team
- the transitions that occur each shift between personnel occupying AIIMS roles
- the outward transition of the AIIMS team and the hand-back of the incident to the local jurisdiction.

Each time a transition occurs there is potential for:

- loss of situation awareness
- confusion and error concerning the management of the incident and its objectives
- information degradation; and loss of momentum in incident control operations.

It is a time of change and potential confusion. It is the time when the incident is most vulnerable to mismanagement and the personnel involved are most vulnerable to unsafe acts or situations.

For an IC it is a time to be extra vigilant. The changeover/transition process needs careful planning and execution. It is the time when all the achievements of the previous shift(s) can be undone and people are most likely to get hurt.

All agency approach to managing transitions

The resources applied to incident control or in the support of those operations are often drawn from a number of different agencies such as DEC, FPC, BFB, FESA and Police in combat roles and the same agencies and others such as SES, local govt, police, DCP and Salvation Army in support roles.

The needs and limitations of these different agencies need to be considered in developing effective transitions for a particular incident. Each has existing arrangements such as industrial awards, shift length limitations, resource availability limitations and mobilisation lead time requirements that will affect the timing and extent of transitions, particularly those associated with shift changes. The roles of the Unified Command group, Liaison Officer and Planning Officer in identifying and catering for these needs early in the incident's history is critical.

The timing and extent of shift changes for various components of the incident management structure will need to be harmonised with these limitations. The busy times and quiet times for various groups in the structure also need to be considered when determining when that group should change shift so as to minimise impacts on production or outputs across the incident.

The involvement of different agencies at various stages of the incident development may also change. Some organisations will have a significant involvement in

suppression operations but as control is achieved this role may diminish. The involvement of other agencies may increase as the incident moves into a recovery mode. The transition from the 'combat' agencies to the 'recovery' agencies requires careful planning. Agencies involved in recovery may have very little 'history' with the incident so their appreciation of what has happened and why will be limited. If this situational awareness is not adequately transferred, the recovery agencies job will be more difficult to undertake in an effective and efficient manner.

Transitioning a team into an incident

- The outgoing personnel have the best developed situational awareness and understanding of the incident. These personnel plan the shift change and should supervise its implementation.
- Local knowledge. At most incidents local knowledge is invaluable. Often all local resources are committed to the initial work period, meaning that their replacements can be left with no local advice available. When it is known that a team is being brought in ensure that appropriate local knowledge is reserved and available for all shifts.
- Integration of local community expertise and concerns. Incoming teams can quickly and unknowingly get local communities off-side by not taking into account local concerns and consulting with locals who may have considerable expertise.
- Facilities. The use of local facilities can be extremely useful to incoming teams, reducing the need to bring in portable facilities. Facilities must primarily be effective for their purpose, irrespective of their management origin. When using local facilities be mindful of existing usage, and consult with facility managers.
- Communications systems and equipment. The type and capacity of communications systems and equipment must be suited to the incident needs. The level of familiarity of incident personnel with these must be assured, especially for personnel who are not from the "owner" of the equipment.
- Communications arrangements with local stakeholders. Arrangements, promises and undertaking given by the previous team must be honoured by the incoming team (at least until new arrangements are agreed to).
- Reporting arrangements, especially with the HMA (host agency). Clarify these when accepting the delegation and communicate them within the team.
- In-briefing from locals (existing IC and manager) including what they need tomorrow for their shift, who are the local stakeholders and what are the community networks.
- Validation of team capability/capacity to incident demands.
- Getting the existing team to quit and go home. It is critical to provide a single, clear management structure. When elements of a team that has been replaced remain on site many people will gravitate towards those people instead of their replacements, effectively undermining the new structure.

Shift change planning

A shift is the period from when a person starts work to when work ceases. Start and finish times can vary widely between individuals and work groups. Shift changes

should focus on retiring work group units rather than individuals. This ensures a continuity of the work group members and facilitates effective teaming.

Loss of momentum and safety considerations is paramount. When shift changes occur there can be an interruption to combat activities. Planning should seek to minimise this down-time.

In most instances the incident shift cycle is linked to the Operations Section. Some parts of Planning and Logistics sections may operate on different shift times.

The Operations Section should change during daylight hours so that incoming personnel have the opportunity to reconnoitre their positions in daylight.

The dominance of the Operations Section shift change will influence the timing and extent of shift changes applying to other Sections of the incident structure. Planning and Logistics shift changes should be timed to complement the Operations shift change.

A shift change plan (SCP) makes this change as effective and efficient as possible. A shift change plan is distinct from the IAP in that the IAP describes the work that will occur *during* the shift, whereas the SCP deals with the *start and end* of each shift.

The SCP includes:

- Shift change objectives. A shift change is a defined activity – the SCP should state the objectives in simple terms (for example all current Operations personnel at rest by 2000 hours)
- Timelines/deadlines. The SCP will specify times when certain events are expected to occur. It is essential that these timelines are monitored and any variations are reported so that the consequences of variations from the plan can be managed.
- Staging areas and drop points. The SCP will indicate where people will be picked up from and dropped off. It is essential that these locations are shown on appropriate maps and signposted in the field.
- A shift change should be achieved in one-to-two hours. Any longer will have a significant impact on shift length times that affect the ability to rotate shifts in future. It also affects the fatigue liability accumulated by fire fighters that results in them not being able to return to work at times conducive to effective shift changes and briefings. This has flow-on effects on the provision of accommodation, transport arrangements, catering and effective suppression operations.
- Operations shift changes should be undertaken at times and in a manner that does not compromise the integrity of the operation or safety of personnel.

The development of a SCP requires allocation of personnel and time. All parts of the incident structure (Operations, Logistics and Planning) must contribute to the shift change planning and cooperate in its implementation. Capacity in Planning (Deputy Planning Officer and particularly Resources), Logistics (Ground Support and Facilities) and Operations Staging Area Managers are critical participants in SCP development.

Elements of a shift change

Shift changes have four main elements:

1. Getting resources to staging areas (from accommodation or fire line)
2. Transport from staging areas to destinations (fire line or accommodation)
3. Feeding
4. Briefing

Availability and timing are the critical issues for a successful shift change. Services such as catering, transport, vehicle fuelling and maintenance and medical attention, together with the availability of IAPs, briefings and check-in and check-out information are critical. Adherence to the SCP by all parties is critical. Any delays or resource shortfalls will impact on resources availability for the current and/or future shifts.

Getting resources to the staging areas

Off the line to the staging area

The Operations Officer usually cannot remove all line resources from the fire ground to a staging area at the same time. This is particularly so in the afternoon when a fire is usually burning at its most intense for the day. To maintain suppression activities the removal of resources from the line must be staged so that outgoing resources are replaced as closely as possible by incoming resources. There may be occasions when incoming resources can replace outgoing resources 'on the line'. This should only be considered when other options have been exhausted.

It is seldom the case that all sectors on an incident are 'active' at the shift change time. The changeover strategies for quiet and active sectors may be different and the SCP must reflect this.

At large incidents two strategies are effective in providing the Operations Officer with the capacity needed to schedule this change without impairing suppression operations on active sectors:

1. The most effective strategy is to provide the Operations Officer with a 'swing shift' for the afternoon shift change. This is one or two strike teams (each of four-to-five trucks) that begin their shift in the early afternoon when operations are likely to be at their most intense and their contribution is most needed. It continues its shift across the day/night shift change and is moved around the fire ground to provide ongoing cover while day shift resources are removed and replaced by night shift resources. They end their shift late in the evening when the night shift resources are settled in and go to their rest ready to be back in the early afternoon of the following day to repeat the exercise.
2. The Operations Officer is provided with a 'ready reserve' of resources during the day shift. This might constitute four-to-six trucks strategically placed around the incident to be able to respond to a likely escape or flare up during the shift. They are additional to the minimum resources required to combat the incident. These resources may have a limited ability to be reassigned during a shift change to 'cover' resources being moved off the line.

Division and Sector Commanders need to exercise considerable discipline to move resources off the line in a timely and orderly fashion. Delays at this point are very costly to later shifts.

Resources coming off the line should be directed to strategically located staging areas that minimise the travel time required to get off the line and to be transported to their place of rest. Bringing resources back to the Operations Point is not necessarily the most time effective option. Staging areas need to be managed and have Resource Unit people present to capture the resource movements and feed them back into the resource management system.

Trucks can be left at the staging area, re-provisioned and made ready for use by the incoming crews.

Accommodation to staging area

The Logistics Section will have a plan that provides incoming crews transport to the staging areas. The more dispersed the accommodation the more difficult it is to get everyone to the staging areas at the required times. Resources going onto the line will preferably have been fed at their accommodation.

On arrival at the staging area the incoming resources are briefed. The briefing will consist of an overall briefing followed by a more detailed briefing by their Divisional and Sector Commanders.

The plan should aim to keep incoming and outgoing crews separated. This ensures no time is wasted in chatting and socialising between the crews.

Incoming crews will be assigned to trucks, check them over for serviceability and move off to their assignments.

Time must be allowed for meals if catering is provided at the staging areas.

Moving resources away from the staging areas

Staging area to incident

Once resources are briefed (and fed) they proceed to their assigned divisions and sectors. Ideally the transport they use will be the same vehicles they will use on sector. Exceptions will include machine operators who will require a 'lift' to their machine. Having these vehicles ready and waiting for the incoming crews is a critical part of the Logistics function. When vehicles are in use on each shift the servicing and maintenance issues can impact on availability.

Staging area to accommodation

The transport plan developed by the Logistics Section will provide appropriate transport to the place of rest. The impact of stragglers that come to the transport late and delay its departure can be costed in many thousands of dollars and significant pain in later shift changes. Discipline of Division and Sector Commanders, strike team, task force and crew leaders is again a key component in the success of this stage of the change.

Strike teams and task forces should be accommodated together wherever possible. This makes transport planning more effective. Leaders are responsible for contacting Resources Unit when they reach their place of rest to report their arrival times and confirm instructions for their team's mobilisation the following shift.

Situation Unit should take this opportunity to interview Divisional and Sector Commanders concerning fire ground conditions, resources, problems and progress.

Catering

A significant issue is the provision of the first and last meal of each shift. Generally speaking if the meal is taken at a person's accommodation it is either prior to the start or after the end of a shift. If, however, meals are taken at staging areas then the meal time will contribute to and extend the shift length. The longer the shift length the more difficult shift management becomes.

If meals are provided at the staging area consider having them packaged so that they can be consumed whilst in transit.

If meals are to be consumed at the staging area it is important for efficient operations that outgoing and incoming crews do not have the opportunity to mix and mill about as this will significantly delay departures.

Staging areas should have a cache of packaged meals sufficient to provide the mid shift meal for the incoming crews. It should also have a cache of water and refreshments sufficient for the incoming crews.

Briefings

Briefings should be provided to all personnel involved in the incoming shift. All briefings should follow the SMEAC format. Firstly there is an overview of the incident and its history so that everyone has the same understanding and awareness. It should include the incident management objectives to ensure that everyone is working toward the same outcome. This should be followed by a briefing pertinent to the person's duties for the shift and cover the details about what has happened, what is planned to happen, what has been done and what is left to do.

Briefings must be complete and concise. They should not occupy more than 30 minutes. Every supervisor should have access to the IAP at the briefing (copies may be shared between teams working together).

Briefings often occur in two stages. A general briefing at the staging area may be delivered to all commanders and crews. A second briefing (sometimes termed a handover) may be provided by the leader or commander the incoming person is replacing. This latter briefing will provide fine level details relating to the work and is essential to effectively taking the role over.

Briefing should be undertaken as close to the work place as possible. For example, operations personnel should be briefed at the Operations Point or at staging areas, and IMT personnel at the ICC.

Prepared packages that include relevant, large scale maps make briefings much more effective. It also provides a point of reference for incoming personnel later in the shift after the previous shift personnel have left.

Combat personnel from other organisations

The HMA may request other combat agencies for specific types and quantities of resources, to be made available at a given time and place. FESA routinely provide DEC with BFB fire fighting resources in this way. This is an effective way of organising these resources onto an incident.

If this strategy is employed it is vital that the details of these resources are made available to the Resources Unit to enable effective support of these resources by Logistics and the management of these resources by Operations.

The most effective means of ensuring the information is provided is to embed a member of the supplying agency (for example a FESA Officer) in the Resources Unit. By doing this the arrangements can be coordinated with other changeover plans, and appropriate welfare provided. Even if the resources brought in do not require meals or accommodation this needs to be known by Logistics so that they do not make arrangements to provide these services.

Fatigue management

Agency guidelines will set out when people require specified rest periods, including extended time off shift. Incidents that run more than a couple of days require work commitments to be forecast at least two days forward to enable replacement personnel to be sourced. Close attention to fatigue management is a safety issue and is therefore a prime responsibility of the IC. Departmental fatigue management guidelines are set out in FOG 12 – *Guidelines for fatigue management in all fire operations including prescribed burning.*

IC handover

The IC must prepare a handover statement for the incoming IC. This should outline the major decisions that have been made in relation to the incident, as well as important issues or decisions the incoming IC will have to deal with. The IC's log of events will also be made available but as it can be difficult to interpret another's diary the handover statement becomes a key document.

The IC should use the PESTLE contexts to facilitate a comprehensive handover of situational awareness. Appendix 6 lists topics that may be relevant to each of the functional sections and can assist an IC in determining the issues that may need emphasis in a handover. The handover should also address the strategic projections and intentions for the incident so that the progression towards these outcomes is consistently applied across shifts.

It is important that the IC's personal assistant (PA) also does a handover with the incoming IC's PA. Both PAs should be present when the ICs do their handover briefing so that nothing is lost in the transition.

Demobilisation planning and implementation

The IC has a central role to play in determining the need to demobilise resources. As the resource demands of the incident decrease the quantum of resources to manage and support the incident will also decrease and IMT leadership will identify resources that can be released from the incident.

The role of the IC is to:

- ensure that planning for demobilisation is undertaken well before the resources are available for release. This requires effort on the part of the Operations, Logistics and Planning sections. Planning Section can best achieve this by dedicating staff within the Resources Unit to develop a demobilisation plan
- ensure that demobilising the specified resources is wise given the risk profile existing at the incident and the ongoing potential for the incident to misbehave
- ensure that resources identified for demobilisation are not required for the stabilisation and rehabilitation operations (particularly machinery)

- confer with the regional and state duty officers (and the OAM if established) to determine if the resources are required elsewhere
- prioritise resources for demobilisation – usually other agency resources first, for example BFB units, followed by DEC resources that are not local, followed by local DEC resources
- leave local resources suitably rested and available for work when external resources depart. There is invariably more work to be done, and new incidents may occur. It is not good to have local resources 'at rest' or at the limit of their fatigue load when everyone else leaves
- that 'management' resources are adequate to undertake the work necessary to hand the incident back to the local jurisdiction, for example rehabilitation plans, and documentation collation. At large incidents this can occupy a large part of any team for more than one shift.

Other issues that the IC should keep an eye on include that:

- logistics has got all the work record information for contract machinery before it leaves site
- work and fatigue records for personnel that will be needed by home jurisdictions for payments are prepared
- any damage claims for contract equipment are documented and inspections completed before the machine leaves site
- 'home' jurisdictions have been notified about the departure and travel arrangements of returning resources

The Resources Unit will need to prepare a plan for implementation. This will require the committal of resources from the:

- Operations Section to get the resources off the fire ground in an orderly fashion
- Logistics Section to arrange accommodation and travel and ensure financial records are complete and ensure all issued equipment is recovered
- Resources Unit to capture and record the details of demobilising resources.

Recovery issue recognition

As the emphasis of the incident moves from control to recovery, the issues that will require attention and the time frame for that attention need to be identified. Early identification of recovery issues allows any necessary work that can be undertaken by incident resources to be included in the working plans of the various sections of the IMT. Planning for recovery should be addressed as early as possible during suppression operations phase.

DEC will primarily be involved in recovery operations that are required on DEC-managed estate. A large proportion of the recovery issues associated with local communities etc is generally undertaken by the local government authority (LGA) under its obligations in *Westplan Recovery*.

Intelligence on recovery issues will be forthcoming from a number of sources and the collation of this intelligence needs to be managed. The Planning Section is responsible for this task. The ISG and/or OASG will provide information on a number

of the social services recovery issues. These two groups need to be actively mined for information by the IMT.

The Operations Section will provide information concerning the environment on the fire ground and what recovery issues exist and what work needs to be undertaken before the incident is demobilised. Determination of these issues and their extent may require the application of reconnaissance resources from the Planning Section. This job can take a number of days at the end of an incident. Keeping track of these issues as they are noticed during the incident decreases the amount of work required at the end of the incident.

The IC's role is to ensure that recovery actions are considered as early as possible in the incidents history, that the information that is required by LGA is passed on, that recovery operations (particularly environmental issues) are planned and available resources are dedicated to undertake the clean up, stabilisation and associated operations.

Recovery issues fall into a number of broad categories:

Social services

Communities will require a range of services beyond controlling the immediate emergency. They will include:

- the provision of crisis housing and counselling services
- The development of information strategies used to convey 'control' focussed information to the community need to be concluded and strategies put in place (if necessary) to focus on 'recovery' issues. In the main these information strategies will be concerned with:
  - who is responsible for various components of recovery (such as telephone, power, water and access recovery)
  - what they are responsible for and what services they can provide to community members
  - how these people can be contacted
- the normalisation of services such as:
  - utilities, including power, telephone, water, sewerage
  - community services, including the re-opening of schools and other services (such as fuel supply)
  - reopening of access – bridges, culverts, walking roads for unsafe trees, re-establishing school bus runs, milk tanker runs
  - opening areas such as national parks and recreation sites
- the normalisation of affected industry, for example Alcoa mining operations and access, timber harvesting, tour operators.

Wherever possible the provision of these services should be managed through the ISG or OASG process. This preference for local service provision is to establish as quickly as possible processes that will be present after the incident structure has been dismantled, since a number of these services may still be required for some time. Changing recovery arrangements is an additional stress an affected community does not need.

Community

The community needs to be transitioned into a normal post-incident condition. This will require interfacing with the community and generally takes the form of a public meeting(s) that provides an opportunity for conveying thanks to community members, providing information on recovery strategies and some social interaction that provides a point of closure between the IMT and the community.

Meetings can become a focus point for the public to vent pent up emotions, and the original intent of a meeting can be lost. Careful planning and consultation with community leaders should take place before meetings are announced.

In transitioning the community to a safe and comfortable post fire mindset, the IC in consultation with the jurisdiction HMA and members of the OASG need to identify any issue in the community that has been a cause of friction or discontent or any issue that has that potential and develop strategies to deal with those issues at the public meeting.

Environmental

Stabilisation and rehabilitation plans need to be developed. These plans will commonly deal with issues such as:

- stabilisation of fire lines against erosion
- collaboration in catchment protection works
- rehabilitation of disturbance such as may occur at staging areas and Operations Points
- arrangements to re-establishing boundary fencing and access tracks
- Replenishment of water supplies in farm dams depleted by fire fighting
- closure of recreation sites made unsafe for public use by the fire
- stabilising and rehabilitating road infrastructure – bridges, guide posts, culverts, pipes, road surfaces (grading) to minimise damage from future rain events
- post-fire survey for rare or threatened biota
- weed control
- predator control in and around the burnt area.

Implementing recovery

Which organisation implements recovery?

In Western Australia the recovery of the community is a responsibility of local government, as set out in *Westplan Recovery*. Local government authorities (LGAs) provide a coordinating role and a point of connection between the various agencies involved in community recovery and the community itself. However, LGA have limited resources and other state government agencies are usually involved in the work of community recovery. Notably agencies such as Department of Child Protection and Department of Health play a significant role but other organisations such as utility providers and non-government organisations such as Red Cross and Salvation Army may also be present and providing services within their area of expertise.

In most bushfire incidents the fire ground is handed back to the local fire HMA(s) to maintain and the community recovery issues are managed by local government.

Identifying the timeframe for demobilisation and recovery activities

The resources committed to a fire, particularly those from DEC, have the capability to undertake stabilisation and rehabilitation work as well as fire suppression work. The machinery committed to an incident for fire suppression can be used (if suitable) for stabilisation and rehabilitation work. Before demobilising resources from an incident their suitability and capability for undertaking the stabilisation and rehabilitation work should be considered.

Recovery activities should be undertaken by priority. The order of priority for recovery work should be:

1. Work that makes the fire ground safe for fire fighters, for example walking roads for unsafe trees and grading road surfaces to allow ongoing patrol.
2. Work that makes the fireground and surrounding areas safe and usable for the public, for example fixing fences to prevent stock straying onto roads and getting power lines re-established.
3. Work that stabilises disturbed land surfaces and mitigates potential erosion risks, for example erosion bars on constructed fire lines.
4. Work that cleans up damaged infrastructure such as burnt recreation sites, disturbance at ICCs, staging areas and Operations Points.

Much of the true rehabilitation work may need to occur some considerable time into the future. For example spoil management, ripping and re-seeding of fire lines, weed and feral predator control and post fire biota surveys may be undertaken several months later when seasonal conditions are appropriate. The incident should identify the work that will need to be done and compile a list that will be provided to the relevant management agency(s). Incident planners should not develop 'plans' of how the works will be done or scheduled.

Clean up and re-establishment of recreation sites may occur months later when plans are developed and resources are available. This work will be undertaken by the land manager but should be identified as part of the incident rehabilitation plan developed by the IMT. Any part of that work that can be undertaken by machinery at the incident should be undertaken prior to its demobilisation.

Setting up for the post-incident analysis process

A post-incident analysis (PIA) is commonly undertaken after a large or significant incident. The aim of a PIA is to document the chronology of events at the incident, identify causal factors influencing the development of the incident and to examine the strengths and weaknesses in managing the incident to allow improved performance at future incidents.

This process requires access to all the detailed records of the incident. Incident records, created by every shift, chronologically sequenced, collated by each unit and section and filed as part of the incident record are imperative to an effective PIA.

The IC has two responsibilities in this regard. The first is to ensure that adequate records are kept and there are systems in place to enable their collation and storage. The second is to ensure that at the completion of each shift and at the end of the incident the entire incident record is collated and stored. Note that a significant

proportion of this record will exist in a digital format. This record is then provided to the HMA at the completion of the incident as part of the transition between the outgoing IMT and the local jurisdiction.

Handing back management to the responsible agency

Handing back a complex incident to the local jurisdiction has to be a formal process. The IMT should meet face to face with representatives of the local jurisdiction(s).

Four crucial components of the hand back are:

1. the incident records compiled and boxed
2. a narrative document for the incident
3. a summary of resources still committed to the fire and the work that still needs to be done
4. a documented transfer of control (legal responsibility).

An incident narrative is an account of the incident that provides the sequence of events, decisions made and other relevant information in a generally non-technical format. The audience for the narrative is broad and includes people from the agencies involved as well as other interested parties.

An outline of an incident narrative is set out in Appendix 5. The content of the narrative is extremely useful to the HMA in undertaking a PIA. The content of the narrative should guide the presentation by the IMT to the HMA jurisdiction representatives.

The summary of resources still committed to the incident is a product of the Resources Unit and the description of work to be done can be developed as a standalone document, an IAP or a component of the incident narrative. This commonly includes a rehabilitation plan.

As part of the hand back the IMT and the HMA jurisdiction representatives should frankly assess each other's performance with the aim of identifying areas for improvement in future. In doing so the emphasis should always remain on the issue and not the person.

Release of responsibility

It is necessary for the IC that there is a document that clearly states the date and time that they relinquish the role and the local managing authority resumes control and responsibility of the incident. This document must be signed by the IC and the local jurisdiction and is basically a release of the IC from the delegation of responsibility under which the incident was taken. Questions of who was in charge at any given time can then be simply resolved.

Incident Management Systems

"Issues relating to how an individual agency chooses to manage incidents are of no consequence outside the agency until there is a need for several agencies to respond to the same incident. Then the smooth, effective and efficient resolution of an incident is highly dependent upon the degree to which the operational protocols and procedures of different agencies are able to integrate into a unified management system for resolution of the incident.

"A system that provides a standard framework for operations, that is used by all services likely to be engaged in the resolution of an emergency, will provide for the smooth, effective and efficient integration of all efforts into a unified management system for resolution of an incident", (AIIMS 3rd Edition, 2005).

Variations in AIIMS implementation

Even though agencies across Australia have adopted the one IMS in AIIMS there will be variations in how they implement the system. Agencies such as DEC in Western Australia and DSE in Victoria routinely establish large Planning and Logistics sections in support of Operations. Volunteer agencies tend to operate with leaner structures. The nature of the hazard being combated can affect the emphasis placed on different parts of the structure.

Legislation in different jurisdictions can also affect the way in which AIIMS is implemented. In NSW the IC is formally appointed and retains responsibility 24-hours a day. In this instance a deputy IC will fill in for the times when the IC is resting, but if necessary the IC will be recalled to duty.

The AIIMS (3rd Ed) system manual does not cover every possible task that may be necessary at an incident, and different agencies will on occasion allocate the same task into different units. This may be due to the way they have traditionally done business, or simply because the system can be interpreted in more than one way. When working with different agencies it is worthwhile to spend a little time to ensure that there is common understanding of the specific implementation that is in place. This is critical when IMT or unit leader roles are being filled by personnel from outside the HMA.

IC management of the AIIMS structure

The intent of the AIIMS structure is for the IC to be able to delegate functions to subordinates so that they can concentrate on the higher end issues that demand attention. Nevertheless the IC will need to be aware of and monitor the performance of each reporting function. It is neither feasible nor appropriate for the IC to be focussing on every aspect of section and unit management. Those aspects that need to be addressed are described in the following sections.

Control Section

The existence of a control section within the AIIMS structure is not always recognised. It is useful to consider those functions outside of operations, planning and logistics that are under the direct management and direction of the IC as part of the control section. The control section is therefore comprised of:

- Incident Controller (IC) and deputy IC

- Liaison Officer(s)
- Safety Advisor(s).

Liaison Officer

The role of liaison in an AIIMS Level 3 incident is demanding and critical to the success of the management team. The Liaison Officer reports directly to the IC. The question that needs to be asked is "What is it that the liaison role does to contribute to effective incident management?" This seemingly simple question is actually quite difficult to corral.

To the IC the Liaison Officer is the primary link to the non-combat agencies associated with the incident. That may be through the Incident Support Group (ISG) or through direct arrangements with the agencies' representatives. The Liaison Officer will also have links with combat agencies. However the IC is likely to also be in direct contact with combat agencies' representatives (see Unified Command).

An effective Liaison Officer will ensure that the agencies have a clear understanding of the nature of the incident, the expectations or requests the incident has of them, and that the incident managers are likewise knowledgeable of the expectations or requests the agencies have of them. The Liaison Officer is managing a two-way flow of information.

The Liaison Officer must also manage the access that agencies are to be granted to the IC or IMT. The IC, whilst responsible for ensuring other agencies are kept 'in the loop', cannot perform this personally.

The Liaison Officer therefore must have sufficient standing in the eyes of the agencies' representative that they are satisfied that their issues or needs are understood and will be attended to. Similarly those representatives must be comfortable that requests made of them by the Liaison Officer have the imprimatur of the IC. This is clearly not a role for a junior staff member and requires the skills and competence of a senior and experienced departmental officer.

Whilst the IC can and should delegate the liaison role to a Liaison Officer he or she will need to meet and work directly with agencies' representatives at different times. The IC will need to determine the nature and extent of these interactions. They will necessarily depend on the nature of the incident, the organisations affected and inevitably the individuals involved. What may work extremely well in one community may be disastrous in another.

Safety Advisor

It is almost redundant to say that safety is important at incidents. Incidents generally directly threaten human safety, and in the instances where they do not the resolution of the incident will place combatants potentially in harm's way.

Safety is both everybody's responsibility as well as being a specific responsibility of the IC. Firstly everyone has a responsibility to work within the prescribed practices and procedures that are defined for incident management. At the same time the IC is responsible for ensuring that these practices and procedures are employed at the incident, and that everything that can be reasonably done is done to ensure people's safety. It is worth adding that supervisors at every level are responsible for the safety of those working under their direction. These responsibilities are enshrined in legislation in addition to being incorporated into the AIIMS management framework.

To make the responsibilities of the IC manageable at large incidents they can delegate the tasks associated with safety management compliance and safety risk management to a Safety Advisor. This position reports directly to the IC and is not subject to direction from any of the section managers.

The role of the Safety Advisor has two dimensions. The first is to work with the Planning and Operations Officers to develop the IAP and ensure that the IAP does not involve unsafe activities or situations. This is achieved by reviewing the draft IAP against the LACES contexts and ensuring that the risks associated with these contexts are mitigated prior the IAP being approved. The second is to monitor the working environments of the incident and forecast, detect, and audit for risk and recommend remedial actions to the IC and line supervisors.

In practice there is limited capacity for a single person to deal with both the higher level strategic and systematic safety issues and tactical level safety issues (generally associated with compliance and attention to immediate operational safety threats). This may result in the appointment of assistant safety advisors to address the tactical field based workload, leaving the Safety Advisor to concentrate on the remaining matters. The Safety Advisor commonly works with the IMT members helping to identify safety risks and in developing mitigation strategies that are consistent with effective operational strategies.

Operations Section

The Operations Section is responsible for the combat of an incident – the performance of the tasks that will resolve the incident. The incident can be divided into divisions and sectors based on functional or geographic factors, or both.

The structure can be comprised of:

- divisions (including aviation and plant divisions)
- sectors
- strike teams (up to five single type resources, for example five fire tankers)
- task forces (up to five mixed type resources, for example three fire tankers a front end loader and a dozer)
- single resources.

The Operations Section provides two different types of products. The first is physical work that transitions the incident from an uncontained through to a controlled and ultimately safe state. The second is information regarding the status of the incident and the resources allocated to the section. The IC relies on the latter in order to make judgements about the incident. Furthermore many of the products that are deliverable by the Planning and Logistics sections are also dependent on information products from the Operations Section.

A tight feedback loop exists where a lack of information from Operations will result in inappropriate or inadequate support deliverables from Planning and Logistics, which in turn negatively affect the performance of the Operations Section.

The key information deliverables from Operations are:

- status of incident (holistic and by division and sector)
- strategic and tactical assessment
- resource allocations (by division and sector)

- resource requirements (by division and sector)
- feedback on the adequacy of communications systems and incident communications plan.

This feedback needs to occur regularly and in a timely fashion. Meeting deadlines for information provision from Operations to the other sections of the IMT is vital for effective incident management and should be viewed as a significant performance measure for the Operations Section.

Planning Section

The Planning Section is responsible for the collection, analysis and management and promulgation of incident information, and the planning of response activities. To do this the section may be divided into a number of predetermined units, each with defined responsibilities that contribute to the attainment of the section's goals.

These units are:

- Situation
- Resources
- Management Support
- Information Services
- Communications Planning

The Planning Section needs to provide a number of products and services to the rest of the incident and external 'customers'. These include:

- incident analysis (inclusive of long term and short term situation analysis, prediction, and development and review of objectives, strategies and tactics)
- incident action plan
- recovery plan
- map products
- shift management and timekeeping
- resource deployment information
- incident communications plan
- media and community information management
- records management
- operation of communications equipment (for example radios, telephones and computers)
- support for key incident staff.

From the perspective of the IC the performance of the Planning Section can be monitored on the basis of these products. The Planning Officer will need to maintain a more detailed picture of the work within each unit, including the precursors to the key deliverables. The Planning Officer is also responsible for running the IMT planning meetings and for minuting these meetings.

Logistics Section

The Logistics Section provides the facilities, services and goods that enable the incident to be managed. Like the Planning Section it has a number of predetermined units that can be established.

These units are:

- Supply
- Facilities
- Ground Support
- Catering
- Finance
- Medical Services
- Communications Support.

The Logistics Section has a number of key deliverables that the IC may request the Logistics Officer to report on. These include:

- facilities to work from (incident control centre, operations point, staging areas)
- accommodation
- transport of personnel on and off shift (between the incident and accommodation)
- security
- provision of meals
- provision of medical services
- communications systems
- financial management
- vehicle and machinery availability.

The IC need not be involved in matters such as how the supply function is working or the details of deliveries around the incident. What is important is that essential incident activities operate effectively and that welfare and occupational, health and safety matters are attended to.

Incident transitions

For the IC there are a number of periods when incident management is under pressure and its integrity potentially threatened. At these times some incident functions or tasks can be overlooked or neglected. Typically these occur when there is a transition between levels of incident management (such as Level 2 to Level 3 incident) or there is a change in incident personnel. The risk is not so much that some activities experience a hiatus at times as that they are not picked up again when the critical time passes.

These periods are during:

- incident escalation
- shift changes (same incident team operating)
- transition between incident teams
- de-escalation
- demobilisation.

A Risky Business

The defining feature of incidents is that there are people and things at risk. Every action and inaction has a consequence. Incident managers are expected to make decisions that result in things turning out well, with minimal loss. Of course this does not always happen; bad things happen despite or sometimes because of well-intentioned decisions.

There are no silver bullets that will ensure that bad outcomes will not occur or poor decisions not be made. What is available is guidance that may assist managers to deal with the circumstances they find themselves in.

This guidance may take the form of risk management processes, creation of a safety culture, mindful application of rules, and mindfulness itself.

Understanding risk

Risk has been defined as the product of the likelihood of an event and its consequences. The use of probability as a factor infers that there is a randomness associated with accidents, that given enough exposure to a hazard then one can expect a certain degree of consequence to ensue.

In contrast after each significant event there is an investigation to determine the causes. This is based on a belief that events, or accidents, have causes that can be described, defined, and ultimately something done to prevent their recurrence.

Upon reflection these two approaches appear to be in tension with each other. If an event is random, then within any given set of circumstances it has a chance of occurring. Alternatively if events are caused, then any event may be prevented by dealing with the causal factors.

The truth lies somewhere in between. Events are causal, they happen because predisposing factors are present, and an alignment of circumstances occurs that brings them about. The manner in which these factors become present, and the manner in which they align is probably not random. However, the full nature of the factors and how they interact is probably not knowable in many if not most or all circumstances. Given the multitude of potentially 'risky' activities that people engage in it would be nonsensical to consider exhaustively analysing these to the degree that would be required to establish a priori the causal relationships of potential events.

Managing risk therefore focuses on identifying, understanding and dealing *effectively* with causal factors, as well as being able to deal with the consequences of events should they occur.

A number of approaches to managing risk are available to the risk manager. These include systematic approaches such as that described in the *Australian and New Zealand Standard for Risk Management* (AS/NZS 4360:2004), and organisational approaches such as those encapsulated in the concept of a high reliability organisation (HRO), or creation of a safety culture. The more an incident manager understands the strengths and weaknesses of each approach the better he or she will be able to resolve incidents effectively and safely.

Risk management

Risk management is the systematic application of management policies, procedures and practices to the tasks of identifying, analysing, assessing, treating and monitoring risk.

Terminology associated with risk management is important. The following definitions are drawn from the Australian and New Zealand standard, from the EMA emergency management guide, and from the United Nations International Strategy for Disaster Reduction website (shown with *).

- **Risk** – the chance of something happening that will have an impact upon objectives. Measured in terms of consequences and likelihood. Also*, the probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.
- **Hazard** – a source of potential harm. Also*, a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.
- **Likelihood** – used as a general description of probability or frequency.
- **Consequence** – the outcome or impact of an event.
- **Residual Risk** –risk remaining after implementation of risk treatment.
- **Resilience** – ability to sustain loss. Also*, the capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure.
- **Vulnerability** – the susceptibility and resilience of the community and environment to hazards. Also*, the conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

Sequence of events

Whilst the process outlined in AS/NZS4360:2004 *Risk Management Standard* (Figure 4) follows a defined sequence the reality is that at an incident a strict adherence to the process will not and need not occur. In this situation it is important that the IC does not become a slave to a system but ensure that the outcomes are achieved. This means that it does not matter in what order risk contexts, acceptability criteria or risks are identified so long as the risks are effectively addressed.

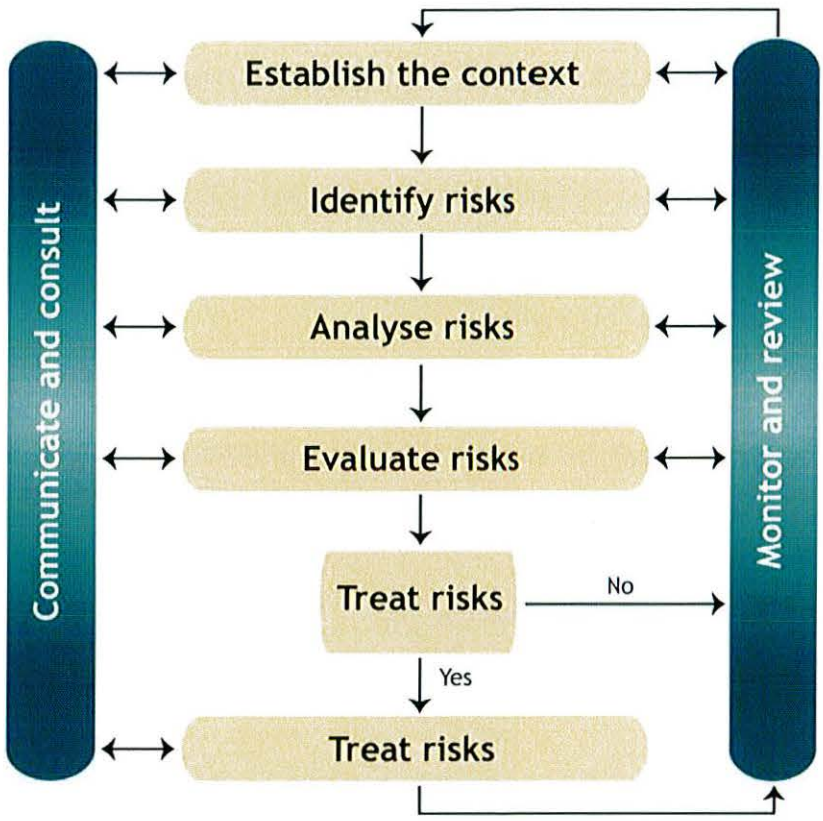


Figure 4. Risk management process outlined in AS/NZS4360:2004 Risk Management Standard

The context is the 'world' in which the risk manager is operating. It is less than everything on earth, and more than just 'putting out a fire'. The context for the IC needs to be established with the 'agency administrator'.

This is important as it is the way the IC frames their 'boundaries of interest' will determine what is considered to be of interest or significance. If a broad contextual framework is not considered then risks may be overlooked and undesirable events unfold that were preventable.

- The internal context. What is the situation within the incident or the organisation? What is significant that needs to be known by the IC when managing?
- The external context. What is going on outside the incident? What are the pressures, influences, or history in which the incident is occurring?

These two contextual environments are well addressed by two acronyms which the IC should utilise to think about the risk environment associated with the incident:

Lookouts, **A**wareness, **C**ommunications, **E**scape routes, **S**afety zones (**LACES**)

Political, **E**conomic, **S**ocial, **T**echnical, **L**egal, **E**nvironmental (**PESTLE**)

These simple means of grouping the risk contexts makes it possible for the IC to quickly scan the risk management environment. This can be done alone, or with the people who have responsibility or can affect those groups. For instance the Operations Section personnel are the major players in operational risks (LACES and the T in PESTLE), the local jurisdiction and members of the ISG are valuable sources of risk awareness concerning the PESTLE contexts.

What constitutes an acceptable loss, and what is unacceptable? Knowing these will influence everything from setting the incident objectives down to establishing

work/rest cycles. The context will provide insight into the criteria that might need definition. Some factors might have clear and constant criteria (loss of any human life is unacceptable); others might need to be reviewed if circumstances change.

Changing the criteria in one category might influence the risk levels in another. For instance accepting the loss of rare and endangered animals might increase the level of political risk.

What are the particular risks associated with the incident? Which ones are significant? Which ones warrant attention and resources?

At an incident there are a vast number of risks, with widely varying probabilities of occurrence and potential impact. It is impossible to deal directly with all of them, even if all of them could be identified. This means that a process of filtering or prioritising must (and does) take place.

How does the IC do this?

There are many means by which an IC (or any manager) can gather information.

Delegation within incident structure

Inevitably most information will come to the IC through the chain of command. A key aspect is to task the acquisition of relevant information from within the management structures. Responsibility for managing risks will usually fall within the delegated functions of one or other of the AIIMS sections. The managers of these sections have a responsibility to be risk managers as well. They need to identify risks and bring them to the attention of the IC as appropriate – especially if they affect personnel across the AIIMS structure or external to the structure, or if the risk level exceeds the acceptability criteria.

Reporting of these risks should be prompt, and the IMT planning meetings should ensure that the risks have been addressed.

External sources of risk information

Risk identification will also come via interactions with organisations, individuals or through formal channels outside the AIIMS structure. It is critical to have lines of communication open so that these can be received. PESTLE is a valuable tool that can be used by the IC to gather information within each context from these sources. It is a common finding in post incident investigations (including coronial inquiries) that 'local knowledge' is not heeded. The IC must ensure that information from these sources (not limited to risk management) is not ignored or lost.

Management by walking around

The IC gains and maintains a lot of situation awareness by taking notice of what is happening around the incident. This cannot happen if he or she remains cloistered in the IC office throughout the incident. Time spent around the ICC talking to people and observing people at work, as well as spending some time on the incident ground is critical to having a good 'feel' for the incident. A sense of how things are is gained by walking around looking, listening and asking questions. The picture that this creates can be compared to the impression that was already held and against the picture that the IC would like to have.

Ask

The IC is very likely to have exchanges with agencies, stakeholders and interested parties outside the incident structure. There is often a high degree of expertise held by these people, relating to technical or local issues. Simply asking what the risks are

using the PESTLE contexts can expose issues that might not otherwise emerge until the event occurs. Many significant outcomes have their genesis in wrongly held assumptions. It is always worth checking on the validity of what is believed to be true, especially if the consequences of error are significant.

Of the infinite number of risks great and small how does the IC ensure that the important ones are dealt with effectively? Which ones are important?

Two aspects emerge from these questions:

- analysis of the risks
- treatment of the risks.

Risk analysis

The risk management process looks at risk analysis in terms of likelihood and consequence. These two factors are independent of one another, but their interaction provides insight into prioritising risks for action. A number of models have been developed with varying degrees of precision. Normally likelihood and consequence are each divided into three to five categories.

An important assumption is that the allocation of categories of likelihood and consequence are made in the absence of any additional control action being taken to deal with the risk. This represents the default state.

In most instances the categories will be qualitative, and estimates at best.

The categories of likelihood and consequence are often displayed on two axes of a graph, and the intersections themselves grouped into levels of risk. An appreciation of how a matrix works provides a common framework for people to discuss actions to be taken or not taken. The example below has five categories in each axis, and four categories of resultant risk. The meanings attached to the categories are described. Note that this example is an illustration only – it is not a definitive model.

Likelihood:

A	Almost certain	The event is expected to occur in most circumstances
B	Likely	The event will probably occur in most circumstances
C	Moderate	The event should occur at some time
D	Unlikely	The event could occur at some time
E	Rare	The event may occur in exceptional circumstances

Consequence:

1	Insignificant	No injuries, low financial loss
2	Minor	First aid treatment, medium financial loss
3	Moderate	Medical treatment required, high financial loss
4	Major	Single death, extensive injuries, loss of production capability, major financial loss
5	Catastrophic	Multiple deaths, huge financial loss

Risk:

L	Low	Ensure standard procedures are followed.
M	Medium	Risk to be actively monitored. Plan of action prepared.
S	Significant	Action to be taken to mitigate risk.
H	High	Urgent action to be taken to mitigate risk.

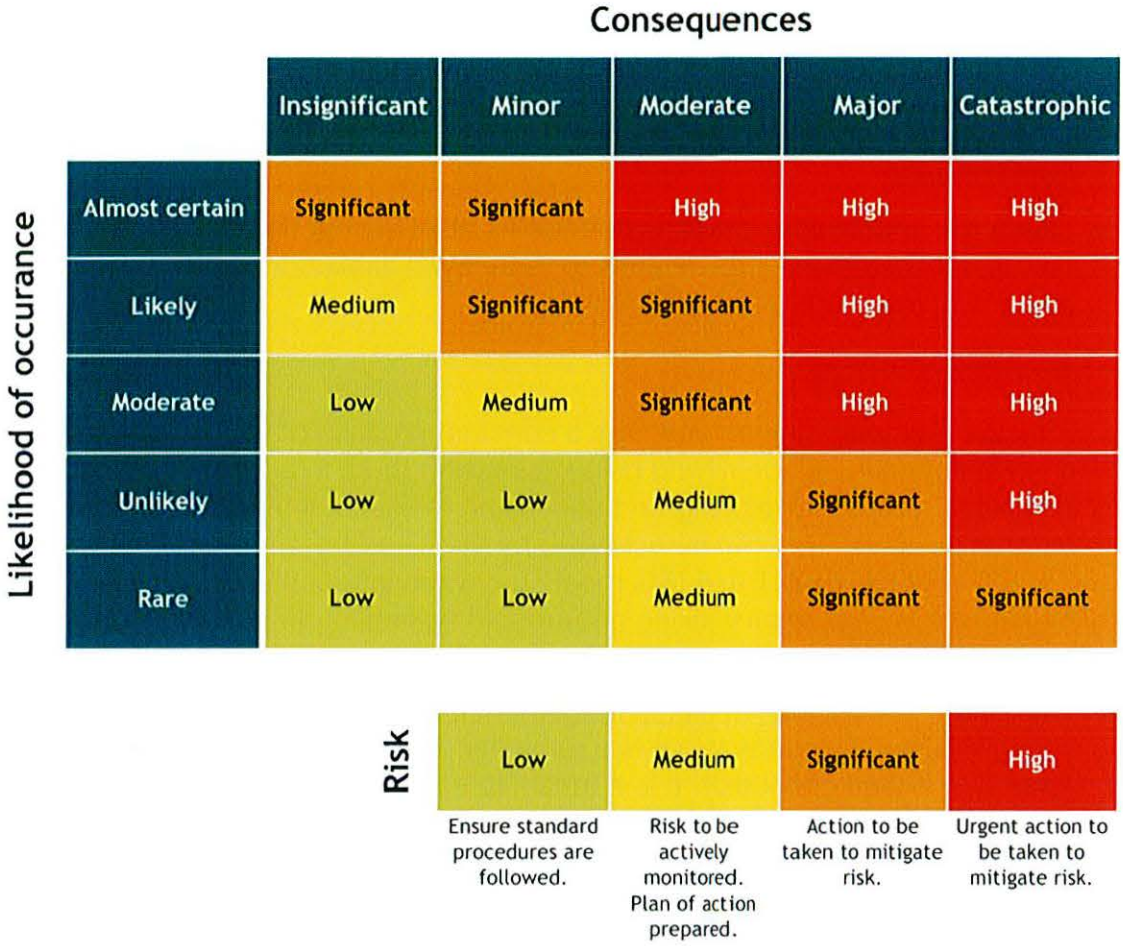


Figure 5. Risk is a function of the likelihood of occurrence and the consequence of occurrence.

Risk treatment

All the foregoing material serves only to identify risks that have to be addressed. Once it is known there is a risk of significance then there is no excuse for not dealing with it – under the OH&S Act.

The A/NZ standard identifies a number of options for risk treatment.

Avoid the risk

This involves not doing the thing that generates the risk, or being in the risky situation. Clearly in an emergency situation it is impossible to avoid all risks – or even to avoid all significant risks. That is the nature of the work.

Reduce the likelihood

Making the risk less likely can be achieved by a number of means, that may involve actively affecting the environment, or may be by defining trigger points when 'avoidance'or 'getting out' is required.

Reduce the consequences

This is typically illustrated by protective equipment and clothing. If the event occurs it will not be as damaging as it would otherwise have been. This is usually not a preferred option, as an underestimate of the consequences might mean catastrophic results.

Share or transfer the risk

Getting someone else to take the risk might seem inappropriate, however if expertise exists with another agency or body it might well be the correct course of action. In many cases this is not possible.

Retain the risk

This is the bottom line. It means that the IC must accept the risk as part of the job. This is the case even when actions to reduce the likelihood and consequence are taken. A level of risk will always remain.

Feedback loops

Effective risk management requires a constant process of review. This requires constant attention to identifying risks, assessing them in terms of likelihood and consequence and developing and prioritising mitigations then auditing the mitigations for effectiveness. This can be achieved by the IC addressing the PESTLE and LACES contexts at IMT and ISG meetings, when interacting with the IMT, when making decisions, when walking around and talking to people inside and outside the incident organisational structure.

One of the key aspects of risk management is that you do not know what you do not know. Whilst this sounds trite it is a reminder to keep looking for things that may have been overlooked previously. It is a truism to say that it is not the things that you expect that give you grief, it is the unexpected.

High reliability organisations

Risks are what we take when we put ourselves into any situation. Things may not turn out the way we would like, have planned, or expect. Risk management is a process that provides for risk identification and mitigation.

But what about the unexpected? What about the things that the risk management process does not identify? How does the IC ensure that when the unexpected does happen, the organisation deals with it effectively, and both survives and learns from the experience?

These are aspects of creating and maintaining a high reliability organisation or HRO. So what is a HRO? It is an organisation that operates under trying conditions but manages to have less than its fair share of accidents. It is not error-free, but errors do not disable it.

Attributes of high reliability organisations

Karl Weick and Kathleen Sutcliffe have written extensively about HROs and have identified five key attributes that they believe contribute to their success.

Preoccupation with failure

HROs are distinctive because they treat any lapse as a symptom that something may be wrong with the system, something that could have severe consequences if several separate small errors happen to coincide.

Reluctance to simplify

Whilst it is true that any coordinated activity requires that people simplify in order to stay focussed on a handful of key issues and key indicators, it is also true that less simplification allows you to see more. HROs position themselves to resist simplification – they seek to retain more complex views that give them more complete and nuanced pictures of what they face and who they are as they face it. HROs know the world is complex, unstable unknowable and unpredictable, and they position themselves to see as much of it as possible.

Sensitivity to operations

HROs are attentive to the front line, where the real work gets done. The 'big picture' retains more situational characteristics than in most other organisations. With well developed situation awareness they can make the continuous adjustments that prevent errors from accumulating and enlarging. People at the front line are listened to, reports of errors are welcomed, and the relationships between people attended to.

Commitment to resilience

Resilience is the ability to maintain or regain a dynamically stable state after a major mishap and/or in the presence of continuous stress. Errors occur but do not disable it. They do this by keeping errors small and by improvising workarounds that allow the system to keep functioning. The pathway to resilience is deep knowledge of the technology, the system, one's co-workers, and most of all oneself. HROs put a premium on training, personnel with deep and varied experience, and skills of recombination and making do with whatever is at hand.

Deference to expertise

HROs cultivate diversity because it helps them notice more in complex environments as well as help them do more with the complexities they do spot. Rigid hierarchies have their own particular vulnerability to error. Errors made at the top combine with errors at lower levels making the resulting problem bigger, harder to comprehend and more prone to escalation. HROs push decision making around and down. Decisions are made at the front line and authority migrates to the people with the most expertise (not experience) regardless of rank.

Dealing with risk in HROs

Wieck and Sutcliffe do not identify any risk management processes (such as AS/NZS 4360) that they observed in HROs. What they do identify is a consistent awareness that the system they operate in can change for the worse very rapidly, and if that is to be avoided then it is better to capture it early rather than too late. There is also a belief that large failures usually occur as a result of existing pre-conditions not being noticed or properly dealt with.

James Reason's Swiss Cheese model tells a similar story. Reason proposes that failures may be seen as an alignment of holes in the various safety and control systems that an event can pass through. The possible permutations of alignments are infinite, and it is effectively impossible to predict every possible way in which

failures may occur. The HRO approach is to look for the holes in the system and eliminate or reduce them as they are found.

What do the holes look like? This varies, as one would expect. The big holes are the ones we usually already know about, and when these are breached it is usually obvious and dealt with. For instance the wearing of a hard hat at fires is mandatory, and when someone does not put on their hard hat it is immediately noticed and corrected. The smaller holes are more problematic. If a piece of equipment was not in the correct locker on a truck would it be reported? By closing off these holes the opportunities for a larger failure to occur is reduced. In HROs these small holes (also referred to as weak signals of failure) are given more attention than in other organisations.

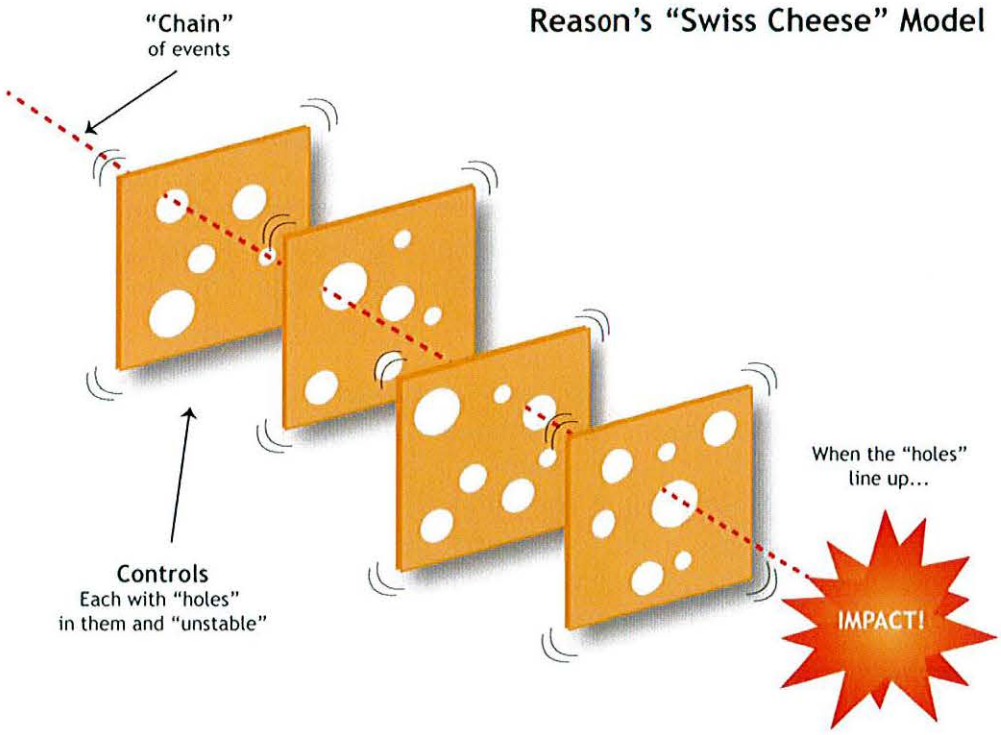


Figure 6. When the deficiencies of the mitigations implemented to minimise the occurrence of an unsafe situation co-occur in time and space an undesirable situation or event can occur

Detecting failure is not straightforward however, particularly when the consequences of the "small holes" are by themselves not significant. Referring to the Swiss Cheese model again in most cases a failure at one level of control will be compensated for or blocked by the next, and the severe 'impact' will not eventuate. HROs are better at detecting failures, and the reasons for this are important. There are two aspects to this: the first is being able to identify that a failure has occurred, the second is what is done with this information.

Identification of failure

The natural thing for most people to do is to focus on what is going well. Everyone likes to succeed, and evidence that one is achieving what one is supposed to be achieving is gladdening news. The danger with a focus on success is that it can easily change into an attitude or belief that all is well. The attitude held within HROs is that success is a dynamically unstable situation; one that must be constantly attended to and maintained. With this in mind one can look for the things that will upset the balance without losing sight of the objective (safe and effective operations).

A necessary part of being able to look for the weak signals is have a deep understanding of how the system works and how things are meant to be. Only then can little anomalies be noticed. Secondly the more people know of a system them more they can predict where it is vulnerable to breakdown. There is a limited amount of attention resource that can be allocated to seeking out evidence of failure and it is best directed to those areas that are critical in the well-being of a system.

Reporting of failure

The degree to which an organisation can be considered to be a HRO can be measured in part by how it manages reports of failure. HROs regard these reports as positive in two respects. First is in the sense that something that wasn't known now is a known and can be responded to and the second is that people need to be comfortable making reports, even if they are personally responsible for the failure.

Making a mistake and reporting it may generate some requirement for retraining or examination of how the error occurred, but it should not be in an atmosphere of threat or acrimony. The alternative is that an error made will be hidden because of a fear of punishment. This is the antithesis of what occurs within a HRO, and is a recipe for impending catastrophe. A culture that does not welcome bad news will not get it, at least not until the news is so bad it cannot be suppressed or hidden. At this point impact has occurred.

In some organisations reports of failures that did not result in significant losses are regarded as free lessons. If not addressed the prices paid for those failures might be a lot higher next time.

Looking for problems

As we grow up many of us are told not to go looking for trouble, because there are enough problems already with looking for more. The question must be asked, though: "If we think there are more problems out there and we don't look for them, won't we find them eventually anyway (or they find us), and at the worst possible time?"

Even when failures are not showing up we cannot assume all is well, or that nothing bad can happen. HROs continually examine their own performance and systems to see what may be hidden below the thin veneer of success. They work hard to anticipate and specify mistakes they don't want to make. They give ongoing attention to these potential significant failures. They are preoccupied with events that deviate from expectation.

If events run differently from how you think they will then there is something going on that you don't know about. It may be important, it may not. If you don't look you won't know – until the system gives you an audit. If someone says "I don't know why it went that way but it turned out okay", then you have just been given another type of free lesson. If it did not go the way you expected then you have an incomplete picture of the system. What else don't you know? HROs will not accept the successful outcome as the end of the matter. They will want to know why it went the way it did, and what prevented it from going awry.

Mindfulness

Weick and Sutcliffe place great emphasis on the concept of mindfulness. They preface their definition of mindfulness by pointing out the part that expectations play in guiding our perceptions. Our expectations make us look for evidence that what we

think will happen has occurred, so we look for *confirming* evidence. The suggestion is that HROs weaken the hand of expectation so that people see more, make better sense of what they see and remain attuned to their current situation.

Weick and Sutcliffe define mindfulness as 'a rich awareness of discriminatory detail'. They mean by this that when people act, they are aware of context, of ways in which details differ (discriminating among details), and of deviations from their expectations. They differentiate mindfulness from situation awareness in that the mindfulness involves the combination of ongoing scrutiny of existing expectations, continuous refinement and differentiation of expectations based on newer experiences, willingness and capability to invent new expectations that make sense of unprecedented events, a more nuanced appreciation of context and ways to deal with it, and identification of new dimensions of context that improve foresight and current functioning.

Mindfulness is about the quality of attention given to the current situation, emerging threats and on factors that interfere with comprehension.

Mindfulness does not discount the role of expectations. Expectations are the product of our understanding of the current situation and what might happen next. Mindfulness is the state where even small instances of expectations not being fulfilled are noticed rather than ignored. Mindfulness also is about the ability to concentrate on the here and now, to be aware of but not to be captured by past experiences or by plans for the future.

Incident management structures as HROs

The factors described here all have relevance in an incident situation. The levels of risk are high; the situations are novel and dynamic. The need for vigilance and mindfulness is as real as it is on the aircraft carriers that Weick and Sutcliffe describe. There is a need to look for the things that can go wrong, and to keep the incident structure responsive to needs that may emerge at any time. Expertise is often located far from the Incident Controller, and delegation of decision-making is a necessary aspect of maintaining effective operations. Incident managers can adopt many of the principles of HROs directly into their incident structures and incident management practices.

One of the most powerful tools available to the IC and other supervisors in the incident structure that will enable the maintenance of this culture of mindfulness is the end of shift after action review. An expectation by the IC that end of shift AAR's will be undertaken will empower and enable personnel at all levels to identify and deal with issues of risk and resilience at every workface.

Safety, culture and risk

It may appear odd to be concerned with culture in an incident context. Incident structures and personnel are seldom entirely pre-set, in that the structure is constructed in direct response to the incident context, and the personnel involved may come from anywhere, particularly where volunteers are involved. Nevertheless it has a place. Firstly it must be established exactly what is meant by culture in this discussion. The well known definition by Schein of culture being "the way we do things around here" is a good description. Reason supports this view of culture as collective practices.

Within the bounds of this definition it begins to become clear what the relevance of a relationship between the people working at an incident and its culture might be. In any group of people there will be norms and expectations of behaviour "how we do things around here". This is defined and led by the Incident Controller, and by every manager and supervisor throughout the incident structure, and lived by every person in the structure, and experienced by everyone coming into contact with the incident structure.

At the time of onset of an incident where people from many agencies and backgrounds respond it may be impossible to establish norms of behaviour, although within any single agency it is eminently achievable. However, once an incident management structure has been established it is feasible to establish and communicate the behavioural expectations of the 'team'. In many ways this aspect of culture is straightforward. The critical aspect is in how those expectations are reinforced in practice. If we accept that culture is 'the way we *do* things around here', then the IC and subordinate supervisors must DO what they SAY and walk the talk, ALWAYS. If the behaviour of a supervisor is in conflict with stated expectations then an effective safety culture cannot be established.

This is neatly captured by the phrase 'walk the talk'. If the IC says that something is unacceptable (for instance alcohol in the camp) and it becomes clear that some are drinking in camp and nothing is being done, then the culture is clear: firstly that drinking is tolerated, and secondly that what the IC says is not really important. If on the other hand those drinking are dealt with in the manner that was set out by the IC then everyone will know that 'around here there is no alcohol in camp', and behave in accordance with that knowledge.

Since culture has been defined as collective behaviours what are the behaviours associated with a safety culture? There are four sets of practices that must be established and reinforced by the IC and the IMT.

A reporting culture

People must be prepared to report errors, near misses, unsafe conditions, inappropriate procedures and any other concerns they may have about safety. It is not about whether an organisation has a reporting system; it is whether, *as a matter of practice*, such things are reported. This will happen only if people are on the lookout for things which need to be reported and alert to the ways in which things may be going wrong.

A just culture

A reporting culture depends in turn on how the organisation handles blame and punishment. If blame is the routine response to error, then reports will not be forthcoming. If blame is reserved for behaviour involving defiance, recklessness or malice, reporting in general will not be discouraged. What is required is not a no-blame culture, but a just culture.

A learning culture

Reports are effective only if an organisation learns from them. In a learning culture information is processed in a conscientious way and changes are made accordingly.

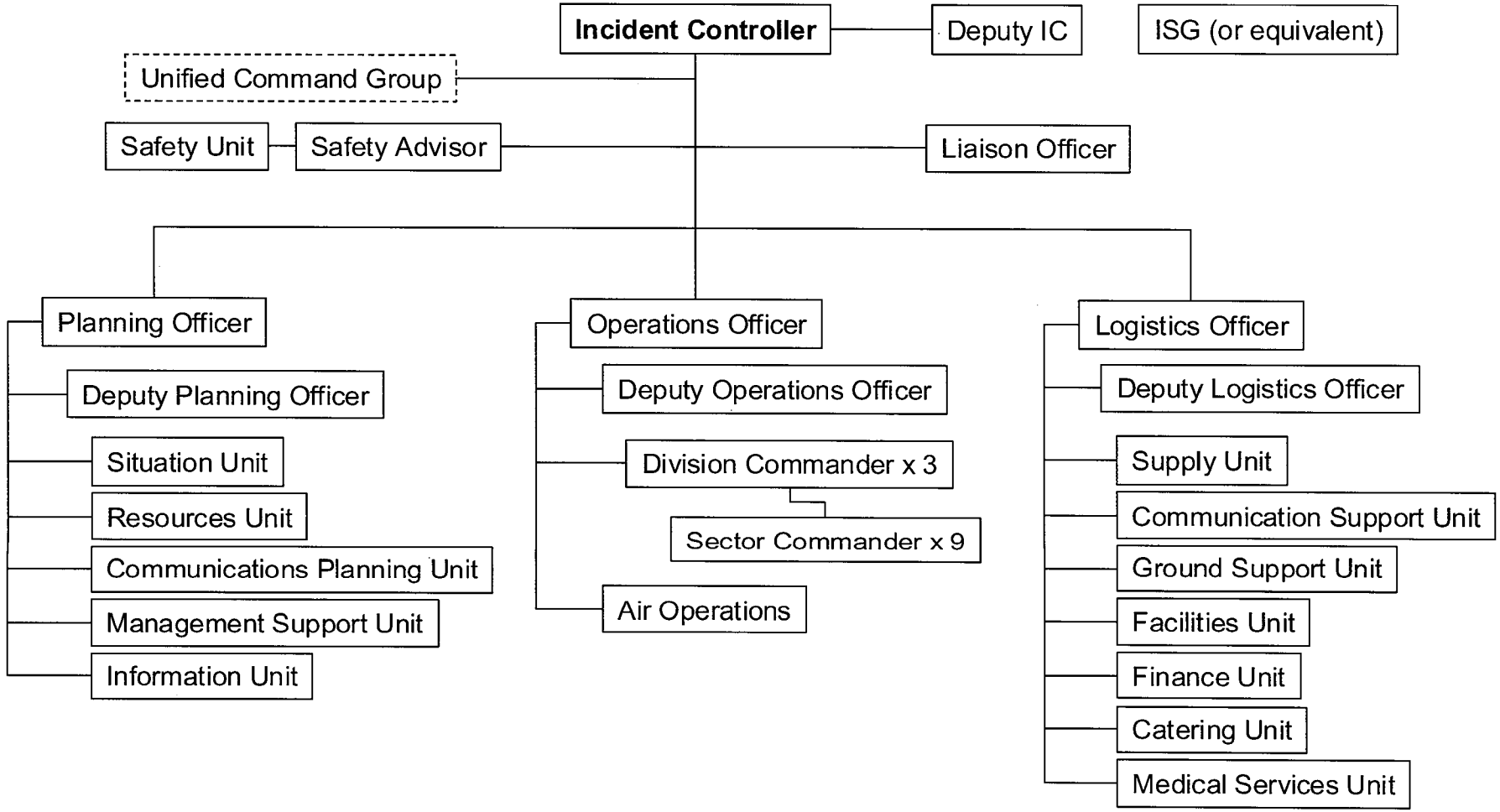
A flexible culture

A safety culture is flexible in the sense that decision-making processes vary depending on the urgency of the decision and the expertise of the people involved.

At incidents a majority of people are operating in uncontrolled and inherently risky environments. It is essential that the organisational culture is one that promotes safety above competing priorities. If people perceive that safety is not the highest priority their choices and actions will reflect that.

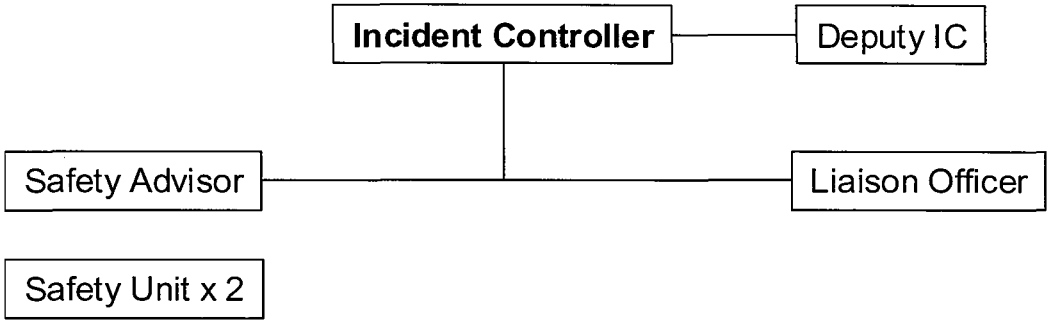
Appendix 1 – Suggested requirements for Level 3 bushfire incident

Structure overview



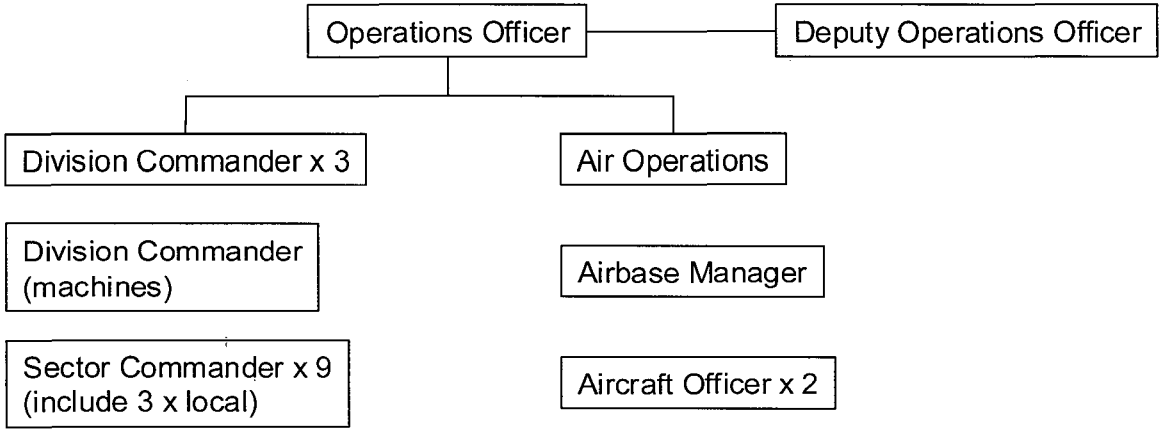
Control Section

Total of 6 people



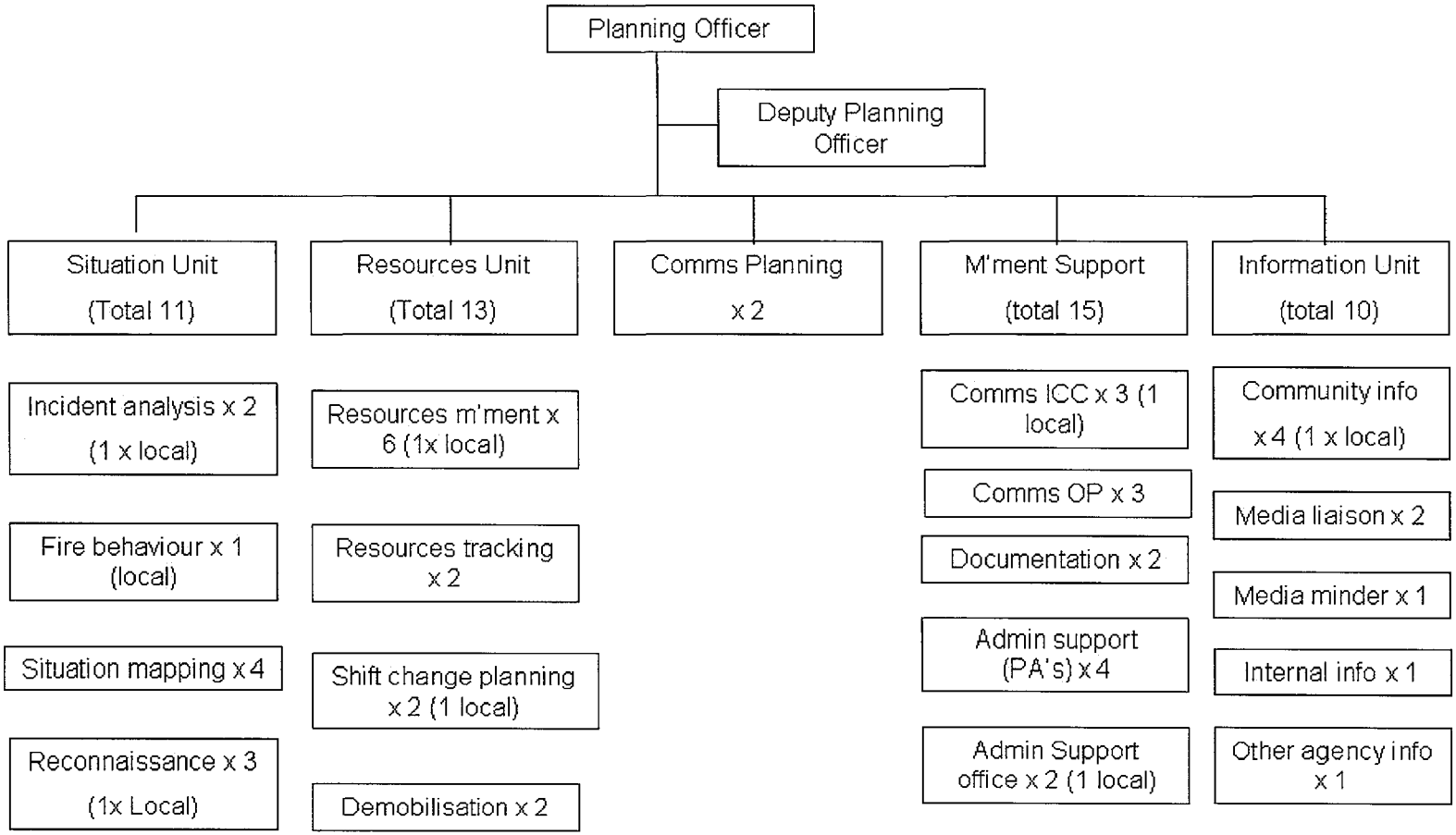
Operations Section

Minimum of 19 people including 4 local



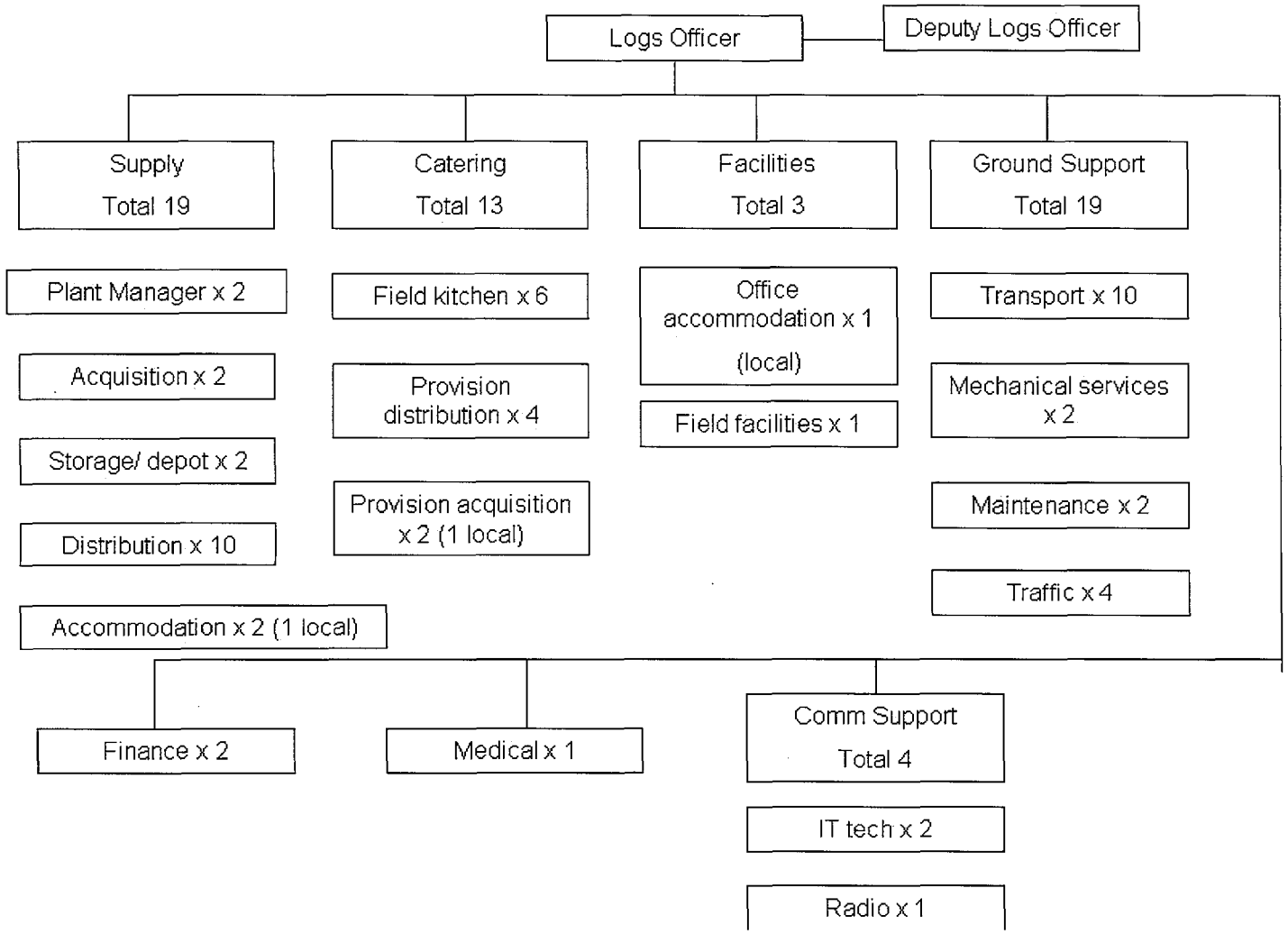
Planning Section

Total 52 people including 8 local



Logistics Section

Total of 61 people including 3 local



Appendix 2 – IMT meeting agenda

AGENDA

Twice per operational period for 30 minutes

PURPOSE OF MEETING

The first meeting is to review the IAP prepared by the previous shift that is to be used by the current shift and confirm shift management issues. The second meeting is to confirm the IAP being prepared by the current shift that is to be used by the following shift.

INTRODUCTIONS	PO
URGENT ITEMS	PO
SITUATION & PREDICTION:	
Fire Status	Sit U/L
Weather Forecast (24hr & 4 day)	Sit U/L
Incident prediction and analysis 24hr/36/hr/72hr	Predictions
Fire Behaviour (current and forecast)	Sit U/L
Resources (current and forecast)	Res U/L
Safety	Safety Officer
Information	Info Officer
Review of incident risk profile (PESTLE) and strategies	PO
INCIDENT OBJECTIVES	IC
INCIDENT ACTION PLAN (IAP)	
Validate Strategy	OO/PO
Resource Needs/Allocations	OO/Res U/L
Division Assignments and Objectives	OO/Res U/L
Communication Needs/Allocations	OO/Comm Plan U/L
Safety Considerations: LACES Analysis	Safety Officer
Logistical Considerations	LO
Financial Considerations	Fin U/L
Interagency Considerations	Liaisons/Deputies
IMT Staff Comments	IMT Staff
Modification/Approval of Plan	IC
Define action items for Operations Area Management Group	IC
INCIDENT CONTROLLER REMARKS	IC

Appendix 3 – Suggested IAP contents

ICS 0.1 – 11/08

IAP – CONTENTS

Operational Period From to Date	Incident Name	Date Prepared	Time Prepared	**Prepared by**

Mandatory Content (must be provided in the IAP)			**Optional Content** (may be included as necessary)		
Description	**ICS Form No.**	**✓ or Quantity**	**Description**	**ICS Form No.**	**✓ or Quantity**
IAP Cover and Safety Message	ICS 0.0		Strategic Analysis (3 Pages)	ICS 1.2	
IAP Contents	ICS 0.1		Organisational Structure - Chart	ICS 2.4a	
IAP Distribution List	ICS 0.2		Medical Plan	ICS 4.5	
Situation Analysis – Values & Objectives	ICS 1.1		Catering Plan	ICS 4.3	
Operations Summary	ICS 2.1		Incident Situation Report	ICS 3.2	
Organisational Structure	ICS 2.4				
Sector Plans	ICS 2.7				
Weather Forecast					
Incident Behaviour Predictions	ICS 1.8				
Communications Plan	ICS 7.1, 7.2, 7.3				
Transport Plan					
Strategic map					
Operations Overview map					
Division / Sector Operations Maps					
Sector Situation Report (minimum 4 blank copies)	ICS 3.6				

Appendix 4 – Planning and meeting cycle

Time	IC	Day Ops	Night Ops	Div Com	Planning	Logistics	Finance
0430						Feed Day	
0500							
0530				Day Brief			
0600		Transition				Feed Night	
0700							
0730			Debrief Night		Debrief Night		
0800	IMT Meeting	IMT Meeting			IMT Meeting	IMT Meeting	IMT Meeting
0900							
1000					Night Ops Situation Summary		
1100	Night Strategy	Night Strategy			Night Strategy	Night Strategy	
1130	Night Plan Meeting	Night Plan Meeting			Night Plan Meeting	Night Plan Meeting	Night Plan Meeting
1200	IMT Meeting	IMT Meeting			IMT Meeting	IMT Meeting	IMT Meeting
1300					IAP Docs		
1400							
1500					Night IAP		
1600							
1630						Feed Night	
1700							
1730				Night Brief			
1800		Transition				Feed Day	
1900					209		
1930		Debrief Day			Debrief Day		
2000	Day Strategy t	Day Strategy			Day Strategy	Day Strategy	Day Strategy
2030	Day Plan Meeting	Day Plan Meeting			Day Plan Meeting	Day Plan Meeting	Day Plan Meeting
2100					IAP Docs		
2200							
2300					Day IAP		
2400			Review Day IAP		Day Op Situation Summary		
0100							

Appendix 5 – Suggested content of an incident narrative

Executive summary

1. Abstract
2. Vital statistics of the incident
3. Incident objectives and constraints to suppression
4. History of command
5. Liaison summary
6. Suppression operations review
7. Fire weather and behaviour
8. Air operations summary
9. Logistics section summary
10. Planning section summary
11. Safety summary
12. Finance
13. Fire information summary
14. Resources remaining on incident
15. Uncompleted work summary

Annex 1

- Fire maps
  - Location map
  - Operational map
  - Fire Progression map
  - Fuel age map
- IMT command history
- Cost summary

Annex 2 – IC handover statement pro-forma

Annex 3 – rehabilitation plan pro-forma

Appendix 6 – Suggested content of an IMT transition

Incoming IMT briefing

1. General information

1.1 Incident name
1.2 Incident number
1.3 Location (map)
1.4 Size
1.5 Land ownership
1.6 Responsibility (HMA, etc.)
1.7 Investigation status
1.8 Interagency involvement
1.9 Situation analysis
1.10 Delegation of authority
1.11 Areas of critical concern
1.12 District situation (fire load)
1.13 Briefing schedule

2. Operations

2.1 Current weather
2.2 Detailed map of incident
2.3 Incident behaviour
2.4 Resources
- Crews
- Trucks
- Dozers
- Helicopters
- Water Bombers
- Other

2.5 Current organisation
2.6 Water sources
2.7 Natural barriers
2.8 Access to incident
2.9 Incident control centre, operations point, staging areas and base camp locations
2.10 Control history and progress
2.11 Safety concerns
2.12 Communication system
2.13 Values at risk
2.14 Operation objectives
2.15 Local personnel available for operations function
2.16 Air operations
2.17 Airport/airstrip locations
2.18 Helicopters at incident
2.19 Water bomber availability/assigned
2.20 Aircraft communication channels
2.21 Heliport/helispot locations
2.22 Flight hazard map
2.23 Restricted airspace designations
2.24 Helicopter water sources
2.25 Pilot flying time status
2.26 Aviation fuel supply

2.27 Local personnel available for air ops

3. Logistics

3.1 ICC and ops point facilities
3.2 Accommodation arrangements
3.3 Catering arrangements
3.4 Status of communications systems and radio repeaters
3.5 Fuel supply
3.6 Water supply
3.7 Garbage disposal arrangements
3.8 Portable toilets
3.9 Telephone capability
3.10 Computer capability
3.11 Security
3.12 Transportation vehicles
3.13 Equipment maintenance
3.14 Vehicle lease/rentals
3.15 Local purchase considerations
3.16 Medical assistance arrangements
3.17 Local personnel available for logistics functions

4. Planning

4.1 Detailed map of incident
4.2 Weather forecasts
4.3 Specific fuel types
4.4 Detailed incident behaviour (historical and projected)
4.5 Status of resources on incident
4.6 Status of resources ordered for incident
4.7 Staging areas and drop points
4.8 Location of water sources
4.9 Maps and photo supply
4.10 Reconnaissance arrangements (including aerial)
4.11 Areas of critical concern
4.12 Safety concerns
4.13 Local community information management, media, other agencies
4.14 Demobilisation plans and priorities
4.15 Local resources available for planning function

5. Finance

5.1 Points of concern
5.2 Local purchase considerations
5.3 Contract purchasing status (plant and equip)
5.4 Medical/ workers comp claims

6. Safety

6.1 List of accidents that have occurred and status
6.2 Special safety concerns on the incident

Appendix 7 – After action reviews

Tips for conducting AARs
Schedule shortly after the activity is completed. Pay attention to time – use the 25% / 25% / 50% suggested time allotment. Focus on WHAT not WHO. Establish clear ground rules: encourage candour and openness, this is dialog – not lecture or debate, focus on items that can be fixed, keep all discussions confidential. The leader's role is to insure there is skilled facilitation of the AAR.
1. What did we set out to do? (Spend about 25% of total time on this question and the next) Establish the facts. Purpose of the mission and definition of success: - Key tasks involved. - Conditions under which each task may need to be performed. (weather, topography, time restrictions, etc.) - Acceptable standards for success (Explaining what "Right" looks like).
2. What actually happened? Continue to establish the facts. Participants should come to agreement on what actually happened. Pool multiple perspectives to build a shared picture of what happened.
3. Why did it happen? (Spend about 25% of total time on this question) Analysis of cause and effect Focus on WHAT not WHO. Provide progressive refinement for drawing out explanations of what occurred. This will lead into developing possible solutions.
4. What are we going to do next time? (Spend about 50% of total time on this question) Solutions will arise naturally once problems are identified and understood. Focus on items you can fix, rather than external forces outside of your control. Identify areas where groups are performing well and should sustain. This will help repeat success and create a balanced approach to the AAR. <u>Sustain/Maintain Strengths:</u> <u>Improve Weaknesses:</u>
Did lessons learned, trends, concerns, processes or ideas come up that you want to share immediately with other units horizontally & vertically? Highlight them and provide them to Fire Management Services for inclusion in team development programs.
There are several formats that you might use. Two possibilities are suggested below: - Issue, Discussion, Recommendation - Concept of the Operation, Results, Trends, Recommendation

AFTER ACTION REVIEW FACILITATION TECHNIQUES

Setting up AAR discussion:

"This is not a critique, not meant to assign blame. It's an open, honest and professional discussion."

Restating a point:

This is used to summarize a point that a participant made that may have not been clear to everyone. "So you're saying you think the helitorch should have started higher up the ridge, and that would have prevented....."

Handling the upward delegation of blame:

Participants will often blame the "system" for being broken, and that causes failures at their level. "OK, I agree, but that's out of our hands. We still have to live with the fact that this issue places us in increased risk. So what can we work on at our level to improve?"

Bringing out the opinion of the 'quiet ones':

Some people just don't process through discussion, but they usually are listening closely and when asked have good insights. Wait until a little later in the AAR and then ask them by name open ended questions. "Well Ken, you were up on the road, what was your perspective on this?"

Interrupting a dominant member of the group:

Some people just naturally like to talk. There is also a tendency for a leader to give all the answers. Interrupt them tactfully with a comment like: "I'm concerned we're going too deep into this issue without getting any additional input. Let's hear from...."

When the group is in denial:

One or more people think (let's use "communications") went fine and are not discussing the issues. In order:

1. Act somewhat surprised. "Really? Interesting. Are there any other thoughts on how communications went today?"
2. Spur discussion with one of your own observations: "OK, I saw a couple messages that didn't get passed to the folks holding the road. What was the plan there?"
3. Press a bit firmer: "OK, what I'm hearing is that you would do this exactly the same way again?"
4. Finally, do one of two things. If the issue is minor, let it pass. If the issue is important, then you may have to make the point blank observation yourself: "OK. You're saying communications went fine. I saw two specific instances where we were right on the edge of the prescription and that did not get to either Mike or Susan. You're telling me that is not a problem? What would have happened if we didn't get that bucket drop?"

Pursuing an issue to its root cause:

The Japanese say always ask "why" five times. It's a good technique to make sure that you're really getting to the root cause of an issue. "So...the torches weren't ready because they didn't get fuelled. And we've heard they didn't have fuel because the fuel cans were on the other rig. What caused that to happen?"

Using 'negative polling' to ask questions:

This is an effective way to get quick agreement/consensus. It is faster than making sure everyone agrees. "Is anyone opposed to moving on to question #3 now?" or "Does anyone disagree that that was the plan, yet this is what really happened?"

Building up or eliminating ideas:

This technique merges complimentary pieces from different ideas or highlights agreement on pieces of an idea when total idea is not agreed upon. "So is there anything you could add to that suggestion to make it work for you?" or "What could we delete from the idea to make it work better?"

Avoiding win/lose decisions:

Look for a win-win situation with the group. "Does it have to be one way or the other? Could we agree to both?"

Asking open-ended questions:

This allows for a variety of possible responses while inviting involvement and participation. "Why do you think that happened?" or "What could we do differently next time?"