

Air Chief Marshal Mark Binskin AC (RTD)
The Honourable Dr Annabelle Bennett AC SC
Professor Andrew Macintosh

Greg Cole



Commissioners
Royal Commission into National Natural Disasters Arrangements

Saturday, 11 April 2020

Dear Commissioners,

Item-8 of the Terms of Reference: Emergency responses to bushfires, including overall human and capital resourcing

Thank you for the opportunity to lodge a submission. My name is Greg Cole. I am a serving member of the Davidson Rural Fire Brigade located on the Northern Beaches of Sydney. In 2019 and 2020 I spent around 21-days in various locations around NSW fighting fires. In my professional life I am an operations specialist in the bus and coach industry. I am a qualified response driver in the RFS.

Around December 19th we responded (meaning under lights and sirens) as part of a strike team from Sydney to Milton on the South Coast. We travelled via the Hume Highway. We passed the town of Bargo as it was being impacted by a huge fire front. We could see it. At this point there was no emergency warnings in place in the Milton area where we were heading. Radio calls suggested the need for more resources in Bargo; however, general practice is do not call-in or volunteer your truck to tell them you're in the area. Something known as "contracting" which is volunteer jargon for crews trying to get tasked to real jobs. The general perception is that the Incident Controller has a holistic view of the situation; we in the trucks don't so stay on task.

We drove to the Milton staging area. They weren't expecting us and were immediately turned around back to Bargo where we were desperately needed. This was very apparent from the radio chatter at the scene. By the time we reached Bargo some 7-hours had elapsed. This is an example of many days like this in the Rural Fire Service. We went straight to work in Bargo finally returning to Sydney after midnight that night. On this day and many others like it I personally encountered the RFS highly underutilised its available resources. This submission is not to broadly criticise the RFS on its lack of logistical expertise. This was a unique situation. My goal is for the RFS to invest further in logistics management. The smaller country brigades were highly utilised and this is just how it works in small communities. In the metro areas we have people and lots of resources. This is where the

weak points are yet this is where professional transport and logistics managers generally reside.

One of the imperatives of logistics management is having what you need where you need it at the right time. You need to know when to redeploy assets: if they are being underutilised in area-1 can you redeploy them to area-2? What state are they in? Are the drivers passing fatigue limits do the crews need feeding? Are the trucks damaged? Can we get parts to the truck? In my industry we achieve utilisations as high as 90% (wheels turning and making money).

This requires a lot of real-time information. All of this information contributes to better all round performance and better decision-making. A lot of essential logistical information in the RFS is not viewed in real time. It has to pass through hands not high-speed data cables.

I don't think anyone knows exactly how many vehicles the RFS has. Lets say with 2,000 brigades there are 4,000 vehicles. It's a starting point. In my world of transport management this is what I know about my vehicles at any given point of time.

1. Where all the vehicles are exactly located and how many of them and their status
 - a. We never know this in the RFS. There is no single holistic air-traffic control type view. Trucks went missing over summer.
2. Who the drivers and crew are and their qualifications and contact details. We know what level license they have in case we need to interchange them. We have license expiry dates and checking systems to manage this
 - a. This information is on paper and brigade internal systems. If we are tracking the vehicle we should know who is in it and their RFS qualifications. For example: Davidson-1 truck is heading south on the Hume Highway. The officer in charge is [REDACTED] The crew are X names. We have two chainsaw operators, a safe working on roofs operator, and three advanced resuscitation qualifications. We have been sent to trees down on roads and nobody clicked we didn't have a chainsaw operator on board
3. Fatigue Management: How long has driver-1 been at the wheel? Our systems tell us time driving, time out of the driver's seat (rest) and when they should probably stop driving. This is law in Australia as fatigue kills.

- a. We manage fatigue in The RFS by asking the driver how he's feeling. Some good officers in charge manage it a little better. Asking a bloke driving a fire truck to stop driving a fire truck if he's tired is not risk-managing fatigue
- 4. Maintenance Management and Defect Management. Our GPS systems track KLMS driven which is linked to service intervals. We are alerted to brake checks and oil changes. We can report defects within minutes of it occurring. Parts can be ordered and shipped almost immediately meaning less downtime for a truck meaning higher utilisation and less carrying of just-in-case inventories of expensive parts.
 - a. Vehicles that I encounter in the RFS are generally very reliable. But defect management is more labour intensive than it should be. In the Northern Beaches our fleet manager is an outstanding individual. He jokes that he isn't sure he'll be alive to see an electronic maintenance management system employed in the RFS, He's only 42. He said this is generally due to a lack of understanding of the benefits of the efficiencies that will occur

How would this all look in relation to our day on December 19th 2019?

1. Bargo goes into the highest level of alert. Evacuations are ordered if you can do so
2. The alert triggers the logistics resourcing team to quickly summarise what resources are in the area. In less than 10-minutes they determine from a computer screen showing live tracking that (A strike team is 5-trucks)
 - a. Strike-team 1 (5-trucks) is 5-minutes from Bargo
 - b. There is a bulk water carrier 20-minutes out
 - c. Strike-team 2 is 40KLMS past Bargo tasked to Milton. Milton is under watch and act conditions. The last two trucks in the convoy are Davidson-1 and Ingleside 1Bravo. These trucks are ordered to return to Bargo. The remaining three trucks are told to stop pending further instructions
3. Logistics relay the status of all the vehicles to the Bargo Incident Controller. He has a clear view of all the resources available to him, where they are, and how far way to the minute they are. He can start assigning tasks
4. The remainder of Strike-team two are still stationary and visible on a screen. Still two hours from Milton, only 40-minutes from Bargo. They are currently not being utilised at all. The screen shows the current resources in Milton are adequate for the

threat level. Current weather forecasts are favourable for decreasing fire activity.

Strike-team two is sent to Bargo, which is the greater threat.

5. Chainsaw operators are urgently required to clear a main thoroughfare. The electronic crew summary shows 5-trucks with qualified operators. They are all called in order of the closest to the furthest truck from the tree-down. The closest available truck is dispatched.

This scenario would have saved a combined 1,500klms of driving. It increased the available hours by fire crews on the fire ground by around 30-hours. It increased the utilisation of active resources on an active foreground considerably. This also mitigates the risk of fatigue related accidents: more crews means more time for breaks. A monitoring system would tell the logistics resourcing team how long each truck has been deployed for and give advice on resting drivers and crews. This would reduce the stress levels on Incident Controllers while significantly improving the accuracy of available information.

The systems to manage vehicles and tracking and crews already exist in Australia. As do the people with the skills to effectively manage this. My experiences of activity, inactivity, and even being forgotten about in the fire ground affirm to me the RFS needs better logistics controls. Being an active Volunteer in the RFS is one of the most satisfying and rewarding things I have ever done, and I'm proud of my brigade and myself for our part in the 2019 – 2020 Bushfires.

Yours Sincerely

Greg Cole