

# SUBMISSION TO THE CRONSTEDT REVIEW OF THE MANAGEMENT OF BUSHFIRES DURING THE 2018-19 FIRE SEASON

[AFAC.Review@dpfem.tas.gov.au](mailto:AFAC.Review@dpfem.tas.gov.au)

**Luca Vanzino**

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## ***Personal Background***

As a member of the public, my cynicism is that any submission from ‘*a punter*’ will be treated in a condescending manner by the machinations of a government bureaucracy.

Therefore I will summarise 36 years of practical experience and knowledge to show the review panel that I am not ‘*talking out of my arse*’

I am a minerals exploration geologist and over the past 36 years I have worked in 10 countries on six continents and I have utilized a wide variety of aircraft whilst undertaking logistically challenging projects in developing countries.

In addition I have worked on six occasions for the Australian Antarctic Division in various field logistical and planning roles.

Twice over the past 20 years I have been, as part of the Channel Brigade, a member of the Tasmanian Fire Service.

I therefore have both aviation and TFS operational knowledge.

## ***Previous Reviews.***

A research project to investigate the impact of climate change on bushfire risk to Tasmania’s wilderness areas and appropriate management and firefighting responses was written by A.J. Press in 2016.

(Department of Premier and Cabinet. Tasmanian Climate Change Office. ISBN: 978 0 7246 5715 0)

From my reading of this report only a few of the recommendations have been attempted and none have been fully implemented. Below are some of the relevant recommendations and examples where nothing has been carried out.

## **REC 1. Comprehensive Fire Management Planning.**

The report called for a dedicated WHA fire management plan. During this year's fires a TFS statement to the ABC radio media indicated that it had not even commenced.

### **REC 8. Capital Investment.**

This report recommended investment in facilities and equipment to enhance aerial fire fighting efforts.

### **REC 10. Operational Capability.**

The report called for PWS to take into account the future suppression capabilities such as fixed and rotary wing aircraft and future skilled remote area teams.

### **REC 11. Use of Volunteers**

The potential use of trained remote area teams staffed by volunteers

### **REC 12. Fire suppression techniques and methods**

Need to pay attention to intervention technologies and techniques such as early detection and rapid attack.

## ***A Solution***

I have worked in Government bureaucracies and it is pointless to even attempt to find any accountability despite the recommendations from the Press 2016 report being two years old. Government agencies are inert monoliths. So instead I offer a solution based on my operational knowledge.

Having been a volunteer firefighter I can attest that the ground crews do a good job with limited resources. My concern is that there needs to be a paradigm shift in the thinking of the State Fire Management Committee.

The *modus operandi* of the TFS when a remote fire starts has always been to 'wait and see' whether it self extinguishes in fire-adapted vegetation (dry eucalypt forest, wet eucalypt forest and open moorland 'button grass' ) as the fire front come up against wet gullies. **This has to change.** With a drier climatic regime any fire in the landscape has to be jumped upon immediately. This is standard protocol in Canada and the USA as these countries are dominated by dry pine forests. Their Fire authorities do not have the luxury of a wet vegetation buffer. Remote Area Fire Teams are par for course in Nth America.

Currently the National Aerial Firefighting Centre has 133 aircraft available for deployment: [http://www.nafc.org.au/?page\\_id=168](http://www.nafc.org.au/?page_id=168)

Each aircraft type noted is suitable for use in specific fire contexts, however what is missing is an aircraft with a large capacity in terms of payload. Moreover an aircraft is required that has the flexibility of deploying from the closest available water source.

Such a purpose built aircraft exists and has been used extensively in North America and Europe since 1994 and currently 165 Canadair CL415 operating in 11 countries.

[https://en.wikipedia.org/wiki/Canadair\\_CL-415](https://en.wikipedia.org/wiki/Canadair_CL-415)

Below are a selection of video clips which indicate the maneuverability and terrain in which these aircraft can work

<https://www.youtube.com/watch?v=ujUfL5KU2N4>

<https://www.youtube.com/watch?v=IRxORwNWRHE>

[https://www.youtube.com/watch?v=cHuoXD\\_VmBs](https://www.youtube.com/watch?v=cHuoXD_VmBs)

The Canadian economy as expressed by comparative GDP is only 10% larger than ours - but they have three times the level of debt. Given that our economies are comparable then I see no financial reason why these aircraft cannot be added to Australia's fire aviation fleet. After all the smallest Canadian province of Newfoundland and Labrador, with a population of 525,000 actually owns one!

No one type of aircraft will be suitable for a campaign fire and a mix of types is necessary however using small helicopters with an under slung bucket is akin to using a *dilli* bag – totally inappropriate for the scale of fires that were encountered this year. Such helicopters and buckets are best utilized in steep mountainous topography where pin point accuracy is required.

In Tasmania there exist numerous large bodies of water where the Canadair CL415 could operate - Lakes Pedder and Gordon, Macquarie Harbour, Great Lake, the West Coast dams, Port Davey, the D'Entrecasteaux Channel and parts of Norfolk Bay. The fires threatening the Huon valley towns could have used such an aircraft with the Huon River immediately adjacent – and only a few minutes flight time from water pick up to downloading.

These amphibious aircraft also have the capacity to move off the water and onto land and could easily be refueled from a floating barge.

I am aware that 'Air Tractors' were utilized in this recent campaign however the water payload is only 3000L in comparison to the CL415 which is 6000L and it takes just 12 seconds.

To operate such aircraft is not logistically difficult from a CASA perspective. It would require the identification of relevant temporary operating zones within each waterway based on existing marine infrastructure, historical meteorological conditions and a coordinated response by MAST and the TAS Marine Police to monitor the exclusion zone when operations are being undertaken.

Whilst this aircraft is ideally suited to Tasmania due to this state's extensive waterways, it could be utilized on the mainland in areas such as the Central Coast of NSW where there are large coastal lakes which are not subject to oceanic swells.

Finally, the capital cost of these aircraft - \$37 million CAD - should not be seen as an impediment. At the Australian Antarctic Division a fleet of aircraft are used for both inter, and intra continental flight and the Australian Federal Government does not own these aircraft – they are leased. A similar programme of leasing these planes from Canada in the austral summer, when Canada is under metres of snow is highly recommended.

### ***Other Issues***

All government decisions come down to priorities.

When the Wilderness Society asked if more effort could have been provided earlier to fight the Gell River fire, there was a predictable response that the Society was '*TFS hero bashing*' whereas the real question was about government resourcing of Fire Management and implementing the recommendations of the 2016 report.

The State and Federal governments need, as a matter of urgency, to commit additional funding to a more integrated approach to **National** firefighting. To prove how inadequate the current system is, my understanding is that Tasmania does not even have a thermal imaging camera and has to borrow it from Victoria - provided they do not need it!

Effective Fire Management would:

- minimise health harm and risk to life.
- protect downstream infrastructure and assets. (Including most of Tasmanian production forests).
- prevent greater firefighting effort and cost being borne by failing to maximise resources to extinguish fire ASAP
- to value WHA area intrinsic values and high value areas
- to protect Brand Tasmania from failing in a crisis to protect is greatest asset. (*This definitely was not the case with the Lake Mackenzie fire*)

A point that needs addressing is whether there are current limits on interstate support and if these are simply financial limits or are other State Governments unwilling to release assets.

Aerial water bombing is a valuable tool but it is not the panacea for extinguishing campaign fires. Back in the 1970's a volunteer remote fire fighting team was set up called the Smokewalkers Brigade. Most of whose members came from the South West Tasmania Action Committee and the United Tasmania Group and this volunteer organization was formed to fight fires in the South West and in the Cradle Mt / Lake St Clair areas because the State Governments of the day were doing very little. The Press 2016 report recommends more remote area fire team capability. With a longstanding culture of bushwalking in this State there is some excellent volunteer capability that could be utilized under guidance of experts - as water bombing needs ground crews to 'black out' for weeks after campaign fires.

### ***Recommendations***

1. Review the Press 2016 report and ascertain what entity within the State Fire Management Committee is responsible for the recommendations of this report; what is the status of those recommendations is and what are the impediments to implementing these recommendations.
2. Lobby the Federal Government to include Canadair CL 415 aircraft within the National Aerial Firefighting Centre and have such aircraft based in Tasmania each fire season as the local operating environment ( extensive waterways) is more conducive than being based on the mainland.
3. Expand the number of personnel available for Remote Area Fire Teams