

In this submission I wish to address **"The use and effectiveness of aviation firefighting resources, in particular, the suitability of aircraft types for the protection of environmental values, forest assets and the rural/urban interface in Tasmania"**.

Our Tasmania Fire Service personnel distinguished themselves during the recent bushfires in the state but in the face of such fires I would suggest that they are unable to effectively suppress them. We have again been confronted with uncontrolled fires in timber plantations and remote parts of our state. Also pristine areas of great cultural significance, which are part of a UN World Heritage national park have been needlessly destroyed. I would submit that the ability of our fire fighters in early intervention is minimal and while ground crews do a magnificent job they do not have the support of a fleet of purpose built aircraft like the Canadair (CL 415) that has been used for decades in Canada and in Europe.

I write out of my own personal experience as a trained fire fighter when I worked at Savage River Mines on the West Coast of Tasmania in the early 80s. In 1982 we had a huge fire that took out an area the size of King Island off the NW coast of Tasmania. This fire started, because a surveyor's camp fire had not been properly extinguished. It threatened part of the township but the tragedy was seeing so much pristine rain forest on the Meredith range destroyed. What was frustrating was our inability to reach the source of the fire and extinguish it before it took hold when the wind got up.

A couple of years later, I was living in a rural area of the south of France called Aveyron. It was here that I saw first-hand the amazing work of the Canadair water bombing aircraft. The models that I saw in operation would have been CL 215s, which I understand are still on the used/second hand market. Bombardier has stopped production at this time, which has been taken over by Viking Air in British Columbia. However, I also note that there is now a 515 model planned (<https://youtu.be/qQ4H85TJ1PI>) and that Viking anticipates that the CL-515 will deliver a 12-15% fuel-efficiency improvement over the previous-generation aircraft: <https://www.vikingair.com/viking-aircraft/cl-215-cl-215t-and-cl-415> <https://www.flightglobal.com/news/articles/fidae-viking-near-cl-415-eaf-tart-cl-515-launch-deci-ion-447283/> , although these will probably not be available until 2024.

As you can imagine I was taken by the effectiveness of these planes, their manoeuvrability and the way they could be rapidly deployed to deal with fires in difficult terrain, which ground based crews would never be able to approach. The Canadair CL415 amphibious aircraft can fly long distances, drop large amounts of water in concentrated areas. They usually make between six and 10 drops per hour totalling 36,800 to 61,400 litres, or before refuelling, approximately 20 to 40 drops, 121,000 to 246,000 litres, corresponding to between three and four hours of endurance. The Bombardier 415 can scoop into a head wind of 90km/h and fly and drop close to the ground when winds of 80 to 100 km/h are blowing. The aircraft is also used in the Mediterranean for search and rescue operations and could be adapted to activities such as coastal surveillance. Each aircraft would cost about \$40AUD million.

We need these purpose built platforms/amphibious water bombers. See <https://winair.ca/blog/everything-need-know-canadair-cl-415/> or https://www.youtube.com/watch?v=_5LKF8G5huw . These custom-designed fire fighting craft would be ideally suited to Tasmania because of our abundance of large water bodies. All of the recent fires were proximate to water - Gordon and Pedder Impoundments, (Gell River, Anne, Schnells Ridge and Upper Huon fires), Great Lake, (Miena fire), Huon River, (Tahune, Geeveston) Lower Gordon River (Wanderer fires), Pieman impoundment (Lynch Hill, Heemskirk fires), New River Lagoon (Federation Peak). Used in the early hours of most Tasmanian mornings, when wind and temperatures are low, humidity is high, and smoke has substantially pooled in valleys and low ground, and guided by precise thermal mapping, several of these planes would have had a real chance to contain most if not all of these fires.

The Canadair unit that is based now at Garons Airfield, Nimes in France in a brand new purpose built state-of-the-art facility, has a well-deserved reputation of outstanding service. The interesting thing to note about the French approach is that it is a national one. All states and territories in Australia help each other out in our country, but our ability is paltry compared to what is deployed in other countries such as Canada, France, Spain etc. We desperately need national leadership in dealing with all forms of natural disasters especially in fighting bushfires, particularly in light of climate change and the likely increased frequency of such outbreaks. I have deep concerns regarding the limitations of the resources available to agencies responsible for bushfire management in Australia like the NAFC, and how they can be better resourced to carry out their roles.

- Has the allocation of resources between bushfire mitigation and suppression activities been well prioritised?
- Can we do more to improve the information and knowledge available to agencies responsible for bushfire management?
- Are we ensuring that the equipment, access, infrastructure and technology needed for bushfire suppression and emergency management is adequate?

It would appear that the State Government has not acted on the recommendations from the Parliamentary Inquiry that was handed down in 2016. The Government could have provided a much swifter response to the fire if they had taken seriously and implemented the recommendations.

Chris Arnol, the Chief Officer of the TFS, wrote a report describing in part the use of aerial resources in other countries when he was the recipient of a Churchill fellowship in 2007. I have attached it to this email.

I know that these aircraft could have a multipurpose role and would be suitable for a range of uses with their proven ability in surveillance with direct water intervention capabilities, search and rescue (SAR), utility transport, border protection, law enforcement and environmental control missions. They could also be configured and equipped for a wide range of specialized missions.

Cost, as always, is the big factor/question, but when one considers the huge loss of plant at Ta Ann Tasmania Pty Ltd and the extensive loss of plantation timber, as well as pristine native forests, unique eco-systems (King Billy and Pencil Pines), cushion plants, which will take decades, some say even a century to regenerate as well as the potential cost in human lives and dwellings and farms etc, we should be doing all in our power to combat this ever increasing threat. That is why I believe the CL415s with their multi-use capability in various roles should be actively considered as a viable option. In 2016 a now retired New South Wales Fire Commissioner, Greg Mullins, wrote to me stating that he had always advocated the use of Canadairs without success. See the attached letter. Maybe the way forward for us in this country is to create a similar unit as the Canadair Sécurité Civile unit in France here in Australia under federal jurisdiction by perhaps beefing up and increasing the scope and authority of the National Aerial Firefighting Centre <http://www.nafc.org.au/>, which I am given to understand only currently receives some 15 million dollars per annum in funding from the federal government. As you would be well aware this centre plays a key role in

ensuring the sharing of aerial firefighting resources between emergency service and land management agencies throughout Australia, and in the development of national protocols and systems for aerial firefighting.

A shift has taken place in the use of large fixed wing water bombing aircraft in this country. As you may be aware Coulson Aviation <https://www.coulsongroup.com/coulson-aviation/corporate-profile.php> has used their C130Q airtanker – “Bomber” here with a 15450 litre retardant capacity tank along with a 737 but of course this is nothing compared to what a team of CL 415s could achieve with their amazing turn around time. And the aerial resources that we have are hardly ever deployed in the initial phases or outbreak of a potentially dangerous fire. Rapid and early reponse is vital.

Viking Air is currently updating and refurbishing CL 215s <https://www.youtube.com/watch?v=u8ZDAwERkAI&t=203s> .

Attached to this email is a lot of information and supporting documents and reports which I hope are useful.

- On youtube there is a very informative documentary in Spanish on the Spanish Canadair unit/group showing their great professionalism and dedication to a very high standard of operation. I can only admire the way these people go about their job. They are a credit to their country. They come under the Spanish Ministry of Defence : <https://www.youtube.com/watch?v=low8wfbrzjM&feature=youtu.be> .
- The French Sécurité Civile unit are also held in the highest esteem by their fellow country men and women. See this documentary in French: https://www.youtube.com/watch?v=QnNj1Feaj_c&t=109s . They have been operating this way for over 50 years!! It is a dangerous profession but they have saved so many lives and huge areas that were threatened with destruction: https://www.youtube.com/results?search_query=canadair+firefighting

I would love the opportunity to discuss this with you should you feel it would be helpful. I am not an expert in the field but simply a concerned citizen.

Simon Hattrell

ps The experience of Geoffrey Luck (see below) like mine in France is why I feel so strongly about Canadairs and how effective they are. Why do we not appear to listen to the decades of experience that has been gained in other countries? I do not understand why even Fire Commissioners like Greg Mullins have made no headway on this. What is going on? What is behind this refusal to listen to the evidence?

From: Luck Geoffrey

Sent: Sunday, 27 January 2019 9:15 PM

To: Simon Hattrell

Subject: Re: Aerial firefighting capacity in Tasmania Australia

Dear Simon

I first encountered the Canadairs when I lived in Umbria and started a local village firefighting brigade. We had a bad fire in the pine forest that came over the hill and threatened Paciano. An Air Force transport laid down a marker of retardant, then the 2 Canadairs were deployed to successively bomb the fire while we extended the fire break on the ground. At times we got the spray! The aircraft were scooping water from Lake Trasimeno about five Kms away, line of sight. This taught me that the speed with which an aircraft can return, and return again and again is more important than the mass of water carried. The turnaround time in your area should be short, with central lakes, dams and the sea. Canberra could have been saved, with all that water right in front of everyone!

Regards

Geoffrey