McDERMOTT AVIATION
HELI-LIFT AUSTRALIA
The Helicopter Specialists

30 March 2016

The Secretary
Senate Enquiry Tasmanian Wilderness Fires
Environment and Communications References Committee
PO Box 6100
Parliament House
Canberra ACT 2600
Australia

Dear Secretary,

Inquiry into Bushfires in Tasmanian Wilderness – Submission by McDermott Aviation P.L.

This submission addresses (primarily) the Inquiry's Terms of Reference sections: b), e) and f) based on observations from the recent fires and makes suggestions for greater effectiveness of aerial suppression resources. This submission is sent in the spirit of generally improving the use and application of aerial fire fighting resources. As with previous State and National inquiries, we have responded to calls for information and would be available for a full debrief on the following or any other relevant matters by any of the agencies involved.

Background

McDermott Aviation Heli-Lift Australia is Australian owned and operator of one of Australia's largest helicopter fleets (in terms of numbers and type of aircraft). The company conducts aerial fire fighting in most States of Australia and in other countries (US, Canada, Spain, Portugal, New Caledonia) as well as forestry, agricultural, aerial application, SAR and charter operations. McDermott Aviation currently holds NAFC contracts for fire fighting in Qld, NSW, Victoria, Tasmania and Western Australia using the World's largest fleet of Bell214Bs, which are the largest capacity domestically owned and operated helicopters (see - http://www.mcdermottaviation.com.au/our-aircraft/bell-214b-2930hp-operations).

Two of these machines are contracted to Tasmania (NAFC contracts) generally from mid December through to mid February each year. With the outbreak of the recent January/February 2016 fires, an additional Bell 214B joined the fleet on a Call When Needed (CWN) basis. During this time our 3 aircraft flew a combined total of 584.7 hours and delivered approximately 13.9 million litres of water in 4,641 loads. The aircraft worked primarily on the Southwest and Maxwell River fires around Strathgordon and the Vale/Launceston region. The following notes are based on this period of operations with comparisons where noted.

Comments in response to Terms of Reference –

b) Availability and provisions of financial, human and mechanical resources –

The aircraft on NAFC contract are based in Hobart but can be pre-positioned and/or relocated to other parts of the State at any time. The aircraft are on 15 minute call out between the hours of 09:00 and 18:00. As a large operator, we have often been called upon to provide additional aircraft and supporting resources during emergencies in all states. On many occasions we have provided additional machines conforming with NAFC specs with experienced crews to seamlessly integrate with the contracted machines. Part of the NAFC function is to facilitate the transfer of contracted resources between states to areas of greatest need and efficiency. The effectiveness of this was demonstrated in the rapid deployment of the third helicopter to integrate seamlessly with the other contracted aerial resources.

On the evening of the 15 Jan we were asked to remain on standby at Hobart Airport past our normal standby time of 1800 to until sunset at 2050. The dry lightning hit as predicted at about 1900 and we were airborne shortly after. We all flew until sunset and were able to contain up to 6 lightning strikes in that time with effective initial intervention.

We were briefed on our return that the next day would likely be busy so to be organised early. We were soon tasked in the morning responding to further lightning strikes in the Derwent Valley, eventually overnighting in Zeehan. Over the following weeks we were tasked to various fires up and down the west coast of Tasmania.

In particular the fires that we attended in the world heritage areas were well organised by TasFire and Forestry Tasmania personnel. We were utilised in an effective and timely manner in support of ground personnel. Daily briefings, including areas of concern, names of ground personnel, radio chat frequencies and targets for the day were all discussed so that we were clear on our mission for the day.

Progress was slow but methodical. Trees were tall and the bush was thick, there was a lot of fuel on the ground and in many areas peat to contend with. We used WD881 foam in our buckets when we could, but due to the sensitive nature of the flora and fauna this was limited. We were most effective in knocking down the running fire and then providing spot drops in support of the ground crew walking the fire line in following up. The ground crews commented on the effectiveness of the size of bucket and the maneuverability of the

helicopters in getting water through the canopy in these forested areas. This was especially evident in fires in the peat soils requiring large amounts of water (up to 20,000 l in some spots) to extinguish fires burning underground.

On a number of occasions we carried firefighters to remote areas to build containment lines and then supported their operations with water drops.

e) World best practice in remote area fire management

The wilderness areas by their nature have limited access and few designated and maintained permanent fire breaks. This increases the time required for ground crews to tackle any fires occurring in these areas. Helicopters play an extremely valuable role in getting to fires quickly and holding or suppressing them prior to ground crew arrival. In a number of cases fire fighters were airlifted into remote locations to build fire breaks.

Chasing lightning strikes in the Derwent valley during these fires supports research findings by the Bushfire CRC and others showing that the early use of aircraft in the development phase of fires can make a significant impact on the scale and severity of wild fires. This is of particular importance in remote areas where fuel levels may be high and ground crews some distance from the fire. (see also comments on fire sensitive threatened flora below)

One of our crews based on the northern fires - the "Lake McKenzie Complex" - noted that notwithstanding the great work done by the incident controllers and ground crews in general,

- there were noticeable delays in progress while interstate crews got up to speed
- The decision chain to air-lift crews into the field was lengthy and meant that at times we were dropping crews into the field quite late in the day

f) Any related matter

Threatened Vegetation –

Within the Tasmanian World Heritage areas there are significant and unique vegetation complexes which are extremely fire sensitive and confined in area. Current and ongoing research suggests these vegetation complexes are under increasing threat of wildfires – particularly from lightning strikes in a warmer and dryer climate. Elimination of fire from these areas is critical to the long term survival of a number of species (eg Tasmanian pencil pine). While helicopters are most often used for the protection of man-made assets and

infrastructure there is a strong case for prepositioning helicopters to provide a rapid response to lightning fires in, or close to, threatened flora complexes in the world heritage areas. The right machines can also carry rapid response crews to the fire and support them with water bombing capacity. We have been involved in the development of this model in several jurisdictions including NSW.

Logistics –

There was an influx of helicopters which arrived for tasking from interstate. Many of these helicopters arrived with no fuel support putting significant pressure on the contracted resources. This may have had an impact on effectiveness of some helicopter operations if we had not been as well organised with our own support resources and able to spare capacity for other operations.

Medical Assistance –

We suggested due to the remoteness of where we were all working, the positioning of an Emergency Response Medical helicopter would have been appropriate. Currently within the USA during large campaign fires, there are such helicopters on close standby to respond should the need arise.

Conclusion

Remote areas create challenges for ground crew access and fire break development. Our work on these fires supported research findings that aerial resources called on for early intervention can have a significant impact on fire expansion through direct water bombing and in taking fire fighters to the fire. Our helicopters and crews played a valuable role in containing and suppressing lightning strikes in remote areas ahead of ground crew support. Anecdotally this prevented more severe fires in the Derwent valley in the days following 15 Jan. This capability could be used more often in support of threatened species protection in remote areas of the heritage areas – particularly when matched with airlifting of rapid response crews to the fire. We would be available to discuss a rapid response capability specifically directed at threatened species in the world heritage wilderness areas.

Efficiencies in logistical support – particularly in relation to additional non-contracted aircraft and medivac capability; decision making around the deployment of fire fighters by air to trouble spots; and better integration of briefing and strategic intent by interstate crews would also yield benefits for future remote area fires in Tasmania.

McDermott Aviation would be pleased to provide any additional information or support that the inquiry may require – particularly in the area of fire fighting aviation. We hope that the preceding material will be of use to the committee and that it will be successful in identifying opportunities for better fire fighting response in the future. Please contact us if we can be of further assistance.

McDermott Aviation