

We owe it to the dead to trial bushfire detection

Barry Cohen says Australia must look seriously
at satellite imaging technology

One of the joys of living in rural Bungendore, a mere 30 minutes from Parliament House, is that friends and family visiting the national capital pop in for the odd cuppa, dinner or overnight stay.

So it was that I found myself entertaining a couple of old friends early in January.

'What brings you to the font of all wisdom?' I asked.

'Bushfires,' was the terse reply.

It is a subject with which Australians are all too familiar. Having lived in bushfire-prone areas all my adult life, and on various occasions been on the brink of evacuation, I am aware of the nervous apprehension that affects everyone during the bushfire season.

Spending a decade or more building and running a wildlife sanctuary in heavily forested Hawkesbury sandstone country, I regularly witnessed the threat to life and limb and to the survival of hundreds of native animals.

The day before Black Saturday I flew out of Sydney to represent Australia at a whaling conference in Portugal at the behest of environment minister Peter Garrett. We arrived in Lisbon to the news that parts of Victoria were an inferno. Daily we watched on Sky News UK the horrendous scenes of death and destruction. They were interrupted only by emotional phone calls from my First Lady describing the carnage just outside Melbourne. We realised that our bushfire experience was nothing compared with what was happening in Victoria. The only

surprise was the enormous coverage of the fires on European television, including a 20-minute broadcast of the Prime Minister's speech to the House of Representatives. What did not surprise were the spontaneous acts of selfless generosity by Australians. I expected nothing less.

Which brings me back to the conversation at my Bungendore abode three weeks earlier. My friends had come to Canberra to talk to local authorities regarding technology perfected in Germany almost a decade earlier that was enjoying amazing success in spotting fires almost before they had broken out.

To quote my friend: 'It was first used by the German Aerospace Center in Bonn for Nasa's Mars Lunar Landing Project to map the planet's surface. It can detect precisely the existence of smoke and its location before the bushfires have a chance to take hold, thus allowing the location of the fires to be precisely determined so that emergency service authorities can deploy the right resources to extinguish the fires.'

How does it do this? Known as Firewatch, the technology consists of a camera unit that scans an area of 400 square kilometres and rotates automatically 360 degrees every six minutes, 24 hours a day, seven days a week.

Now note this. It can detect the difference between 16,384 shades of grey and tell the difference between smoke, cloud and mist. If it sees smoke, it can alert the control room to take the appropriate action. With

recently added night vision capabilities, it can provide precise details of a fire. And the result? In the eight years it has been operating in Germany it has reduced the area burned by 92 per cent.

Now Australia is not Germany. For starters, the latter doesn't have zillions of highly flammable eucalypts ready to explode at the drop of a cigarette butt. Nevertheless, a 92 per cent reduction is very impressive.

The next obvious question is: if Firewatch is so good, why isn't it being used elsewhere? I don't know the answer to that question, and I don't have the expertise to make an evaluation of what appears to be revolutionary technology.

However, if it is half as good as it is cracked up to be, every government in Australia should be examining the technology to assess its applicability to Australian conditions. Not to do so would be criminal negligence.

We don't need hundreds of 'experts' traipsing all over the world to determine whether it would work here, but Australia should send a team, drawn from state emergency service units, national parks and academe, to visit Germany, France, Portugal, Estonia, the Czech Republic, Holland, Mexico (where it is being rolled out) and the US, where it is being trialled.

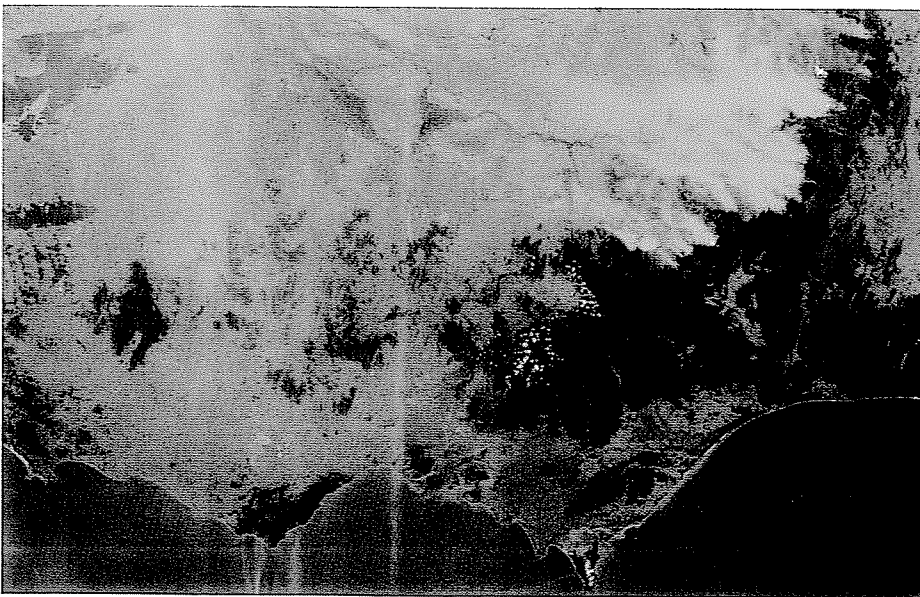
Cost, obviously, will be a major factor, but it is as well to remember that the technology is not intended to cover the whole country but to concentrate mainly on the outer urban areas of our major population centres where, historically, bushfires have been devastating.

The equipment provided is not sold, but leased for a ten-year minimum period. A rough rule of thumb is around \$90,000 per annum per unit. It varies according to the topography, as Firewatch can't see through mountains.

Will it work? That's for the experts to determine. But I do know it must be tested. No country experiences the massive loss of life and property from bushfires as much as Australia. No price can be placed on the lives of the 210 people who tragically perished in Victoria and the many more who will die as our population continues to grow and expands into areas that are, frankly, not suitable for human habitation. And carbon emissions? Up to a third of Australia's carbon emissions come from bushfires. We are talking billions of dollars.

There is a limit to how much taxpayers' money governments can spend to prevent bushfires, but let's at least find out the cost and then make the decisions.

Finally, to those who have very low expectations of politicians, may I refer them to the speech to the House of Representatives on Tuesday 23 February by Liberal backbencher Fran Bailey, the federal member for McEwen, home to 195 of the 210 Australians who perished in the recent fires. After 40 years of public life, half of which were spent in the Federal Parliament, I have not heard a more moving speech. It was simple, factual, sincere, bipartisan and from the heart, and it moved me to tears.



Eye in the sky: a satellite image of February's bushfires