

ENVIRONMENT CONSERVATION BUSHFIRES

## 'Buying time': the pilot behind world's first Boeing 737 water bomber

By **Peter Hannam**

January 28, 2019 – 12.00am



Hikers in Kosciuszko National Park over the past week would have been treated to an unusual aerial display if they happened to be near Possum Point.

They might have spotted a small fixed-wing plane eject a puff of smoke, signalling to a hulking Boeing 737 trailing less than half a kilometre behind just where to dump its load of water, gel or fire retardant on the uncontrolled bushfire below.



John Gallaher, a US pilot, at the controls of a Boeing 737 converted into an air tanker to fight fires for the NSW Rural Fire Service and other agencies. NSW RFS

"We talk to the 'bird dog', and they give us a description of the fire," said John Gallaher, one of two pilots behind the controls of the converted jetliner. "We get the target and tuck in behind."

At their lowest, the 737's sorties are just 150 feet (45 metres) above the vegetation, the US pilot said, adding somewhat nonchalantly: "It's the same pattern as when you land at the airport [except] you go around and do it again."

### 'Unforgiving' conditions

Despite its size, the aircraft is no less manoeuvrable than any other plane operating at the same speed and same angle. Still, flying so close to terrain, conditions are "unforgiving" for mistakes.

Pilots have to pay close attention to changeable winds – particularly "soft air" caused by down-draughts – that bushfires themselves can generate.

Fortunately, the direction of billowing smoke provides important clues, such as the "just crazy howling winds" witnessed by Mr Gallaher during one recent flight.



The Boeing 737, dubbed 'Gaia', in action for the NSW Rural Fire Service during the 2018-19 fire season. NSW RFS, VIA FACEBOOK

Mr Gallaher is in his 19th year of piloting planes used in fire-fighting, and his third season flying with Australian teams. Growing up in an "aviation family" helped set his course early on.

"My dad taught me to fly and my first flying job was piloting an air tanker fighting fire," says the 56-year-old pilot, who calls Big Sur on the central Californian coast home when he's not on fire duty.

## First of its kind

What's unique about the NSW Rural Fire Service use of a Boeing 737 is it's the first time the popular airliner has been configured for a water-bombing role anywhere.

The plane's advantages include a large payload of about 15,100 litres of liquids it can drop on flames below or retardant that it can lay in the likely path of the fire. Its 72-passenger seats have been removed – but could be added back if future certification permits.

Along with a Lockheed Hercules C-130 – also in service with the RFS – the 737 jetliner "flies slow very well" at just 130 knots (240 km/h) assisting the accuracy of any dump, Mr Gallaher says.





**NSW RFS**  
@NSWRFS

The Large Air Tanker has been deployed to assist firefighters at the Possum Point fire (Snowy Valleys LGA). Gaia is assisting ground crews by building containment lines around a small breach on the north-eastern corner of the fire. There is currently no threats. [#nswrfs](#) [#nswfires](#)

89 1:31 PM - Jan 23, 2019

[44 people are talking about this](#)

It can also speed to a major blaze and return rapidly for refuelling. Last week, the plane was deployed to help Tasmania cope with its dozens of bushfires, reloading with water at Hobart airport.

Mr Gallaher stresses aviation's role is very much to support fire crews battling the blazes on mountain sides, on forested and grassy plains, and near homes and other structures.

"We slow [the fires] down, we help people on the ground," he said. "We buy them time and make the fires more manageable."

"I'm the guy who gets to have fun in the airplane," Mr Gallaher said. "If you've found something you love, why do anything else?"

## 'Vital response'

For RFS Commissioner Shane Fitzsimmons, the 737 has proven its worth in 33 sorties, dropping more than 600,000 litres of various liquids on or near fires, as of Saturday.

"The capacity and speed of the [large air tankers], especially the 737, allow the NSW RFS to quickly send support to help firefighters on the ground anywhere across the state from its base in Richmond within an hour," he said, adding that's a role especially useful "on severe or extreme fire days when a quick response is vital".

The 737 is one of four large air tankers in a fleet of more than 100 mostly light aircraft the RFS can call upon for help with reconnaissance over a fire season that seems to get longer each year.

The converted jetliner's contract with Canada's Coulson Aviation – Mr Gallaher's employer – has already been extended a fortnight to February 20.



A 747 Global air tanker makes a drop on a wildfire in Scotts Valley on Friday. AP

The use of fire retardants can make for a spectacular view, whether from a 737 or its larger Boeing cousin, the 747, that has been used in the US.

The non-toxic material is "essentially fertiliser", with the pink or red colour added to help those on the ground identify the trails being laid, he said.

"People try to get their hands on it to put on their grass or gardens," Mr Gallaher said.

The 737 lease is part of a \$38 million, four-year fund to support aerial firefighting, the RFS said.



**Peter Hannam**



Peter Hannam writes on environment issues for The Sydney Morning Herald and The Age.

---