

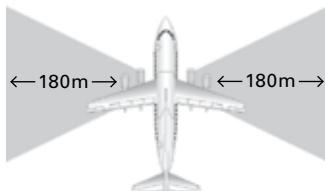
ATC Notes

Where there is smoke.... Aircraft Wheel Fires

Airservices Australia's Aviation Rescue and Fire Fighting (ARFF) Services aviation fire fighters are highly trained to respond to a full range of aircraft incidents.

What are Smoky Wheels?

Most pilots will almost certainly have observed or experienced smoky aircraft wheels. While the first signs of trouble may be smoke emanating from the aircraft wheels or undercarriage region, it is quite possible a pilot may not be aware of the potential problem until an undercarriage fire or heat indicator is activated.



Potential shrapnel coverage

When an Aircraft Wheel Ignites

Generally occurring in aircraft that have had new brake linings fitted, smoky wheels can be caused by overheating brakes, hydraulic fluid leaking onto heated brake and wheel areas, burst tyre/s and mechanical/hydraulic failure. Left unmonitored, a smoky wheel has the potential to unexpectedly escalate into a wheel fire.

An unattended wheel fire can rapidly spread into the fuselage and main-plane while the structural integrity of the aircraft can be threatened if the wheel

assembly or undercarriage collapses. Furthermore, with aircraft fuel tanks located in close proximity, and the potential for overheated wheel assemblies to explode and propel shrapnel significant distances away from an aircraft, the danger a smoky wheel or wheel fire can present to passengers, ground staff and other aircraft and facilities, is great.

The Role of ARFF

Airservices Australia's Aviation Rescue and Fire Fighting (ARFF) Services aviation fire fighters are highly trained to respond to a full range of aircraft incidents. Following the observation of wheel smoke, or when advised of a potential wheel fire, in line with Standard Operating Procedures (SOP), they utilise specialised equipment to ensure any potential or actual fire, is isolated and suppressed as quickly as possible. Communication with the pilot is maintained throughout an incident via dedicated emergency frequency 131.0 MHz to provide a situation report of visual external conditions, and allow the pilot to provide temperature indications and other critical information to our aviation fire fighters.

ARFF only stand-down from the incident when the wheel assembly area has cooled sufficiently, and they are sure there is no chance of escalation of the incident.



How You Can Help Us

ARFF Services treat every smoky wheel incident as a potential wheel fire and early intervention is paramount. If your aircraft has an overheated smoky wheel or you suspect a wheel fire, advise the control tower and request contact with ARFF Services directly on our dedicated emergency frequency, 131.0 MHz.

Effective communication can enable both parties to assess an incident and potentially avoid the unnecessary evacuation of an aircraft.

Quick Facts

ARFF Services primary accountability is to ensure the safety of aircraft occupants in the event of an incident/accident; We observe every aircraft take-off and landing during our published hours of operation; We respond to aircraft incidents on the movement area within 3 minutes.