

## PRIMARY ROLES

Aerial incendiary, Air Attack, and intelligence gathering.

## FUEL QUANTITY

426kg/540L

## SEATING

1 Pilot plus 5 passengers

## POWERPLANT

Turbomeca Arriel 1D1 Turbine Engine, 546kW. The maximum rated kW in the RFS Cat 1 is 174kW

## HELICOPTER DIMENSION

Minimum 26 metres round

## SPEED

Cruise speed 226km/hr, Maximum speed 287km/hr

## HELICOPTER LENGTH

12,94m

## HELICOPTER CAPACITY

750kg

## MAXIMUM TAKEOFF WEIGHT

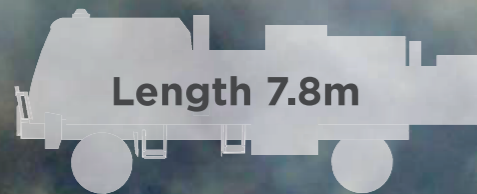
2,250kg

## INCENDIARY MACHINE

Capable of dropping 240 incendiary pills per minute

## ENDURANCE

3 hours



Length 7.8m

CATEGORY ONE TANKER



Length 12.94m

FIREBIRD 200

# FIREBIRD 200 VH-NFO

Eurocopter AS350B2 Helicopter



FIREBIRD 200  
Produces 546kW



CAT 1  
Produces 174kW





## Gathering and relaying vision direct from the fireground

Equipped with a 360 degree camera, Firebird 200 (FB200) relays footage direct from the fireground.

Extremely versatile, Firebird 200 (FB200) is one of three firefighting helicopters owned by the Service.

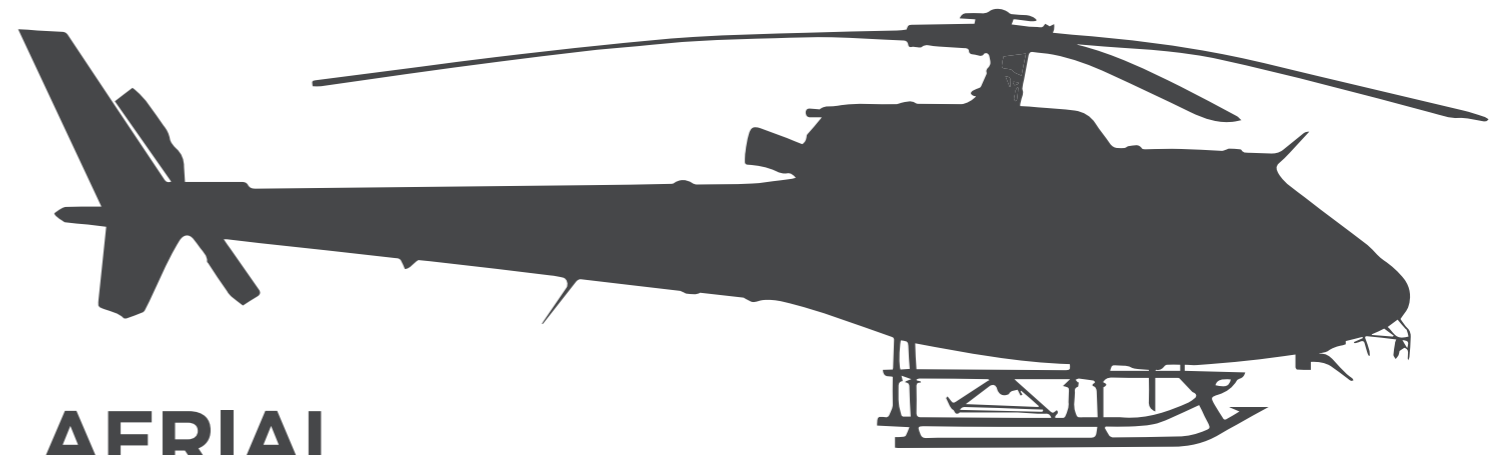
It is housed at Sydney's Bankstown Airport and is regularly used for intelligence gathering and aerial incendiary operations. In the 2015/16 year FB200 was deployed 49 times.

Unique to this particular aircraft is a customised 360 degree camera fitted near its nose (see right). NSW RFS Media Services and Aviation worked alongside US-based company Immersive Media to develop the purpose-built system – the first of its kind in Australia.

The camera re-packages 360 degree images into 30-second video clips and then sends the footage back over the mobile network. Delayed by only a few minutes from capture, the footage can be viewed via a website and is accessible by NSW RFS Headquarters, Fire Control Centres and Incident Management Teams.

The footage provides information that assists those on the fireground and in the development of structured warnings for communities threatened by fire.

The first major use of the technology was during the 2013 Coonabarabran fire.



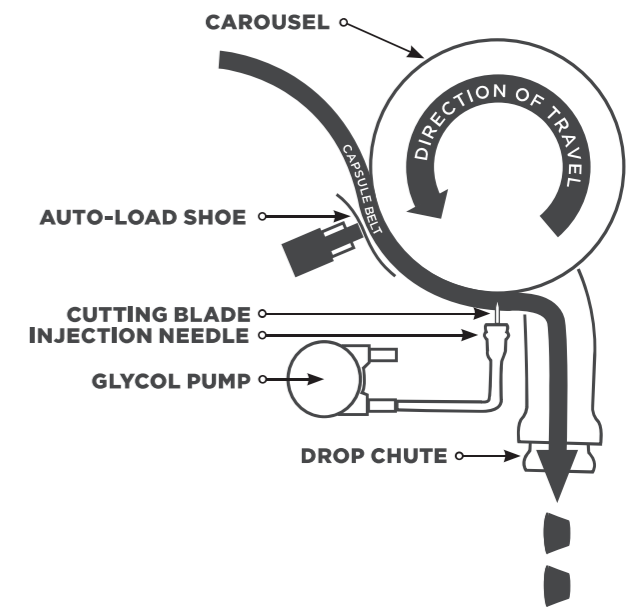
## AERIAL INCENDIARY MACHINE

Igniting hazard reduction burns from the air is known as aerial incendiary and this is one of the primary roles of Firebird 200 (FB200).

The aircraft can be fitted with an aerial incendiary machine which drops capsules of flammable material at a rate of up to 240 per minute.

The incendiary capsules contain potassium permanganate. Once injected with ethylene glycol, the two chemicals have a delayed exothermic reaction to produce an intense ignition source. This process is illustrated to the right.

Large hazard reduction burns, or areas that are hard to access by truck or foot, are the most suitable for ignition by aerial incendiary. Areas that require hazard reduction are identified in Bush Fire Risk Management Plans. Once identified burn plans are prepared and a request is made to the State Air Desk for aircraft and personnel to assist with the burn.



LEFT: The burn plan of the Buxton hazard reduction in the Southern Highlands in October 2016. RIGHT: A photo of the hazard reduction after ignition showing the lines set by aerial incendiary.