

Type 1 (High Volume) Helicopter Fact Sheet

Erickson Air-crane S-64E

Brief description

The Erickson Air-crane S-64E is a heavy vertical lift helicopter capable of delivering high volumes of water and suppressant to a bushfire, given access to an appropriate water source such as a large dam, lake, or reservoir.

The CFS contracts an Erickson Air-crane S-64E during peak periods of the Fire Danger Season. Based at Brukunga in the Adelaide Hills for operations in the Mount Lofty Ranges, the Air-crane can be used to support ground firefighting operations anywhere in the state where suitable open water is available.

Specifications

Manufacturer: Sikorsky Aircraft Corp/Erickson Air-crane

Engine: 2 x Pratt & Whitney JFTD-5A

Rotor Diameter: 22.7m

Length: 27.23m

Tank Capacity: 7,500 litres (2,000 US Gallons)

Fuel Usage: 1,900 litres/hour

Fuel Endurance: 2.5 hours

Range: 450km

Cruise Speed: 115 knots (213kph)

Drop Speed: 45 knots (84kph)

Crew: 1 x Pilot & 1 x Co-Pilot



Operational capabilities of the Erickson Air-crane S-64E

- The Air-crane can refill from a fresh water supply using its hover fill snorkel in approximately 45 seconds. The water supply needs to be at least 1m deep and clear of obstacles for at least 75m – 100m and of suitable capacity.
- In favourable conditions, the Air-crane can also refill from the sea using its salt water ram fill snorkel (or 'sea snorkel'). This is considered a 'last resort' as salt can adversely affect the aircraft's engine and airframe requiring significant post-operation maintenance.
- The Air-crane is fitted with a 7,500 litre firebombing tank and microprocessor controlled delivery system, which allows the pilots to pre-select the coverage level of each drop based on the fuel type and/or fire intensity. The load in the tank can also be split into multiple smaller drops.
- Remote response of this aircraft requires considerable logistical support, including dispatch of its own dedicated 35,000 litre refuelling truck and support crew of 6 to 8 personnel.
- With a drop speed of 45 knots (84kph), the Air-crane can provide highly accurate drops, particularly useful in asset protection around houses.
- The Air-crane can be successfully integrated into firefighting operations with all other firebombing aircraft types, both fixed-wing air tanker and helicopters.