



# AIR SUPPORT

Large Air Tankers (LAT) and Very Large Air Tankers (VLATs) arrived in NSW for the 2015/16 fire season. Faster airspeed and larger fuel tanks enable LATs and VLATs to deliver more suppressants in a shorter time frame than the aircraft currently in use in Australia to date. They can reach almost any location in NSW within an hour while carrying a full payload and the capacity to immediately contribute to the local firefighting effort. A lead plane accompanies the air tanker on their missions to assess the fireground and determine the most effective firefighting tactics. The LAT/VLAT program is on trial for two years. Here is a profile of the aircraft that were used for the 2015/16 fire season. An assessment will be done of the 2015/16 trial to determine which aircraft will be used in the 2016/17 fire season.



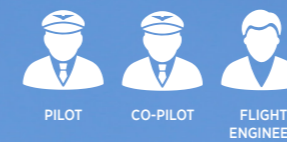


# VERY LARGE AIR TANKER

## DC10 SOUTHERN BELLE



The *Southern Belle* DC10 arrived in NSW in October 2015 as part of the two year trial of Very Large Air Tankers in NSW. With cruising speeds of up to 650kph, it can reach any location in NSW within an hour and is capable of dropping 44,000 litres of water or suppressant (gel or retardant).



CAN CONTINUE TO DROP UP TO LAST LIGHT AND LAND IN THE DARK. UNLIKE CURRENT SINGLE-ENGINE AIRCRAFT



**CAPACITY TO DROP**  
44,000 LITRES OF WATER OR SUPPRESSANT

THREE EXTERNAL TANKS ARE BUILT BY ERICKSON AND ARE SAME DESIGN AS AIRCRANE TANKS

TANKS HAVE INTERNAL BAFFLES TO PREVENT FLUID SHIFT (AND CONSEQUENT SHIFT IN CENTRE OF GRAVITY) WHILE IN FLIGHT

EXTERIOR BELLY-MOUNTED TANK

CAPABLE OF SPLIT OR MULTIPLE DROPS

ENTIRE LOAD CAN BE DUMPED IN EIGHT SECONDS

A THREE-ENGINE TURBO-FAN JET CIVILIAN TRANSPORT AIRCRAFT WITH 73,000KG THRUST

ACTUAL DROP RATE IS COMPUTER CONTROLLED BY THE FLIGHT CREW IN ORDER TO PRODUCE THE DESIRED COVERAGE LEVEL OVER THE FIRE LINES

ALL THREE TANKS CAN BE FILLED SIMULTANEOUSLY ON THE GROUND IN 18 MINUTES

LEAD PLANE TO ASSESS FLIGHT PATH AND DROP

CAPABLE OF LAYING LARGE RETARDANT LINES OF 30M WIDE AND UP TO 1KM LONG

CAN BE USED FOR INITIAL ATTACK ON SMALL FIRES

IF FURNISHED WITH PASSENGER SEATS COULD CARRY 350 PASSENGERS



CRUISING SPEED (LOADED) OF 650KPH



FULL PAYLOAD AIR TANKERS CAN REACH

ALMOST ANY LOCATION IN NSW WITHIN AN HOUR

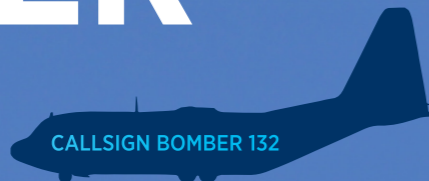
OPERATIONAL FROM MILITARY OR COMMERCIAL AIRSPACE ONLY

TRAVELS AT 650KPH WITH MAXIMUM PAYLOAD

MAXIMUM PAYLOAD RANGE OF 1,950KM OR THREE HOURS FLYING TIME FROM AIRBASE



# LARGE AIR TANKER THOR



## HERCULES L100

Thor Hercules L100 arrived in NSW in September 2015. Fast and capable of releasing 15,450l of water or suppressant (gel or retardant).



CAN CONTINUE TO DROP UP TO LAST LIGHT AND LAND IN THE DARK. UNLIKE CURRENT SINGLE-ENGINE AIRCRAFT



= 1 DROP

DROP RATE IS COMPUTER CONTROLLED BY THE FLIGHT CREW IN ORDER TO PRODUCE THE DESIRED COVERAGE LEVELS OVER THE FIRE LINES

A DROP OF THE WHOLE 15,450 CAN TAKE 2.2 SECONDS

CAN DROP 15,450 LITRES OF WATER OR SUPPRESSANT AT A TIME

CONTAINMENT LINES 30 WIDE AND UP TO 350M LONG

FOUR-ENGINE TURBOPROP CARGO AIRCRAFT WITH 18,000HP

USING TWO REFILLING POINTS, THE TANKS CAN BE FILLED IN 10 MINUTES



CRUISING SPEEDS OF 545 KPH

CAN TRAVEL FOR UP TO 6 HOURS



**OPERATIONAL**  
ANYWHERE FROM RICHMOND, WILLIAMTOWN RAAF BASES AND TAMMORTH, DUBBO AND CANBERRA AIRPORTS

# LEAD PLANE BIRD DOG



## ROCKWELL TURBO COMMANDER

One of two Bird Dogs available to the NSW RFS. Fast and adaptable these intelligence-gathering aircraft assess the fireground, determine the best flight path and then lead the huge air tankers across the fireground showing them where to drop their load of gel or retardant using a smoke generating machine.



PILOT  
AIR ATTACK SUPERVISOR (NSW RFS OR NPWS)



SMOKE GENERATING MACHINE USED TO MARK OUT THE FLIGHT PATH AND DETERMINE WIND DRIFT FOR THE AIR TANKERS

VERY FAST: CAN MATCH THE SPEED OF THE AIR TANKERS

PRESSURISED CABIN

MAXIMUM DOWNWARD VISIBILITY DUE TO HIGH WINGS

TWIN ENGINE, HIGH WING PASSENGER TRANSPORT AIRCRAFT 1,430HP

SOPHISTICATED COMMUNICATIONS AND TRACKING EQUIPMENT KEEP AIRCRAFT IN CONSTANT CONTACT WITH AIR TANKER AND FIREGROUND MANAGERS



OPERATIONAL: ANYWHERE

CAN TRAVEL UP TO 4 HOURS

CRUISING SPEED UP TO 500KPH

**NSW RFS AIR SUPPORT**