

Firefighting Aircraft and the Horseshoe Two Fire

As wildland firefighting has evolved and become more sophisticated over the past several decades aircraft have become another tool available in the firefighter’s arsenal. These aircraft range from fixed wing aircraft or air tankers to various sized rotary aircraft or helicopters. These aircraft are classified or typed based upon their payload capacities. For example, air tankers are classified as type 1 through type 4. A type 1 air tanker can carry a minimum of 3000 gallons of water or retardant. The other types are type 2 (minimum of 1800 gallons), type 3 (minimum of 800 gallons) to the single engine air tanker (SEAT), which carries approximately 100 gallons. Similarly, helicopters are also typed based upon their carrying capacity. There are three types for helicopters. The helitanker or type 1 can carry a minimum of 700 gallons; the type 2 has a minimum payload of 300 gallons; the type 3 will carry at least 100 gallons. Actual payloads will vary based upon the specific model of aircraft used and the operating altitude.

It should be noted that aircraft and water or retardant do not put out fires. They cool flames and slow the spread of a fire so firefighters can get closer to and have more time to attack the fire. Additionally two other types of aircraft are important to the aerial firefighting effort. The lead plane is a small, fixed wing airplane used to direct the activities of air tankers both through the use of verbal instructions and by actually leading the air tankers on their run to drop their payload. Also flying over the fire and above all the other aircraft is the “Air Attack Group Supervisor” whose function is to act as an in air controller to direct the activities of all aircraft assigned to the fire.

Several types of aircraft have been used on the Horseshoe Two Fire. Over the course of the fire there were assigned 21 different aircraft. The table below lists examples of some of those aircraft.

Aircraft Model	Fixed/Rotary	Aircraft Type	Aircraft Function	Capacity (gallons)	Picture
Aero Commander	Fixed		Supervisor		
King Air by Beechcraft	Fixed		Lead Plane		 <small>FLIGHT SOLUTIONS & SERVICES FIRE MANAGEMENT</small> Plane is not burning. Smoke release to show following tanker the wind conditions
Neptune P2V	Fixed	Type 3	Air Tanker	800	

Sikorsky S-64 Skycrane	Rotary	Type 1	Tanker	2,650	
Bell 212	Rotary	Type 2	Water/ Retardant	360	
Bell 206B Jet Ranger	Rotary	Type 3	Water/ Retardant	120	