

# AERIAL FIREFIGHTING



Columbia Helicopters is a leader in aerial firefighting and has been providing this service globally since 1967. Columbia's fleet of heavy-lift helicopters are the Columbia Model 234 Chinook, the Columbia CH-47D Chinook, and the Columbia Model 107-II Vertol. Each aircraft is suited for a variety of missions in support of aerial firefighting. Columbia's fleet of helicopters deploys to fires equipped with the SEI Powerfill Torrentula Bambi Bucket or the Simplex Fire Attack System (FAS) internal tank. Aircraft and fire suppression and retardant methods are determined by customer requirements, terrain and environmental conditions. Columbia will work with the customer to determine the best combination of aircraft and equipment for the customer's mission.

## **Internal Tank**

Our Simplex Fire Attack System is available for the Columbia CH-47D Chinook helicopters. This system is designed with a 2,800 gallon (10,599 liters) water or retardant tank and a 139.7 gallon (529 liters) foam tank. The pilot can drop a full load of water or retardant in four seconds, or combination of settings as required by the customer. The Fire Attack System is also equipped with a Telemetry Unit that provides real time information on dip site location, drop site location and amount of suppressant or retardant delivered. The tank can be filled at a tanker base through 3 inch (7.62 cm) lines or the tank can be filled while hovering over a water source or dip tank through a snorkel/hover pump. The hover pump can fill the tank to capacity at suppressant/retardant sites with as little as 18 inches (45.72 cm) in depth.

## **Bambi Buckets**

Columbia's fleet can deploy to fires with the SEI Powerfill Torrentula Bambi Bucket with a capacity of 2,600 gallons (9,842 liters) with our Columbia Model 234 Chinook. We also operate the smaller Bambi Bucket with a capacity 1,300 gallons (4,921 liters) with our Columbia Model 107-II Vertol. Each Bambi Bucket contains four high-speed pumps that can fill the bucket in less than 90 seconds from sources as shallow as 18 inches (45.72 cm). In addition to filling from traditional water sources such as lakes, ponds, rivers and oceans, these versatile water buckets can be filled from shallow streams and ponds, as well as dip tanks. Buckets are typically suspended 200 feet (61 meters) below the helicopter, allowing Columbia's pilots to access tree-lined streams and ponds, or other access-restricted water sources.

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## SPECIALIZED MISSION EQUIPMENT

SEI Powerfill Torrentula  
Bambi Bucket

Simplex FAS internal tank

Cargo hook and rigging

Specialized rigging

## FIREFIGHTING CAPABILITIES

CH-47D helicopters are 24% faster and 40% more fuel efficient than other helicopters in its class

Higher cruise speed and better fuel efficiency translates into delivering greater payloads

Fire tank and bucket can accommodate foam, gel and retardant in addition to water

## QUICK FACTS

CH-47D Fire tank capacity:  
2,800 gallons (10,599 liters)

Fire tank can be filled in 60 seconds and emptied in 4 seconds

6 water drop settings

8 coverage drop selections

234/CH-47D Bucket capacity:  
2,600 gallons (9,842 liters)

107-II Bucket capacity:  
1,300 gallons (4,921 liters)



## Positioning Water Drops Effectively

Once the aircraft is over the fire, Columbia's pilots are able to drop suppressants and retardants in a variety of ways to best meet the needs of the ground fire fighters. The pilots can create a massive fire line by partially opening the bucket/tank while in forward flight. They can open and close the gate to dispense a series of spot drops, or they can hit stubborn hotspots with a precise, massive spot drop.

Bubble windows on both the pilot's and co-pilot's sides facilitate quick pick up and provide a full view of the drop area to ensure obstacle clearance and enhance safe load delivery. Once over the location, the load is placed precisely over the designated target and the pilot electrically opens the bucket/tank's gate.

