

Brake Parachute System for Su-30 Aircraft

Brake parachute is used to assist normal wheel braking and to reduce the landing run of the aircraft. The parachute produces its maximum decelerating force immediately after opening following aircraft touchdown, or at a time when wheel brakes are not very effective, especially when the runway is wet or icy.

When aircraft lands on runway in normal/emergency condition or during an aborted takeoff situation, pilot of the aircraft initiate stream button in aircraft cockpit. The door of parachute container gets opened and the spring loaded auxiliary parachute comes out of container. With the help of drag of auxiliary parachute, pack cover along with main parachute extracted from container and main parachute comes out from pack cover. The inflated main parachute produces the drag to reduce the speed of aircraft in turn reducing the landing run. The inflated parachute is shown in figure.



The Brake parachute system is fabricated using various textile materials and metal parts. It consists of following major components/subsystems-

S. No.	Description
1.	Pilot chute
2.	Main Parachute
3.	Thimble cover
4.	Canopy deployment bag
5.	Tie down strap
6.	Cord ring
7.	Conical spring