

Supporting the Warfighter with Low Cost Parachutes



The Aerial Delivery and Textile Section at DLA Distribution Susquehanna, Pa., has the unique responsibility as the sole source for aerial delivery equipment being used in the Afghanistan Theater of Operations. One of the missions of Aerial Delivery and Textile is to pack and maintain war stock contingency parachutes which have been used during resupply missions in Afghanistan. Another is the receipt, storage and shipping of over 2,500 per month of the new low cost parachutes currently being used for resupply missions in Afghanistan.

There are three different types of parachutes currently being packed, shipped, and maintained within the Aerial Delivery and Textile Section, including the high velocity, or High-V, parachute, the low velocity, or Low-V, parachute, and the cross parachute. These parachutes are used for in-theater drops from airplanes of materiel for the Warfighter that cannot be delivered via truck or alternative transportation due to the difficult terrain in places like Afghanistan. Each parachute uses a low cost air delivery system, or LCADS, to deliver materiel.

The LCADS High-V parachute was developed as an alternative to the 26 ft. high velocity ring-slot parachute. It has a weight capacity of 2,200 lbs., and can be dropped from an altitude of 15,000 to 25,000 ft. above ground level. This parachute, known as the "black widow," has 12 "legs" that are knotted, rather than stitched, to the suspension lines. The High-V parachute is made from three ft. wide polypropylene strips stitched in a crosshatch pattern to form the

"legs." As it descends from the sky, the black triple cross canopy pattern, along with its "legs," gives the appearance of a spider floating down on an invisible web. This new chute is an immense improvement on the standard parachute used for one-time use applications. It's inexpensive, easy to make, and its performance promises to be at least as good as the standard 26 ft. parachute.

The High-V parachute has a big brother - a low velocity, or Low-V, parachute. As with most older siblings, the Low-V parachute is bigger and beefier than the little "bro." It may have up to 20 legs (instead of twelve legs like its smaller brother) and each leg is about 25 ft. long. Its crown, the "body" of the spider, is about 30 ft. square. Like the High-V parachute, the Low-V "Spider Chute" is made of a simple woven polypropylene fabric that costs less than \$0.50 per yard. The polypropylene closely resembles the material used for sand bags and tarpaulins. Huge quantities of it are being made every day for use in construction, making it simple and quick to obtain.

As with the High-V parachute, the lengths of fabric are stitched into a cross-hatch pattern to form the chute crown and its "legs," and nylon rope is knotted to the end of each leg to form the suspension lines. But unlike the original "Spider Chute," the Low-V parachute is used to deliver loads from aircraft flying at low altitudes - about 500 to 1,250 ft. above ground level. The High-V chute delivers loads from altitudes of 15,000 to 25,000 ft.

The Low Cost High Velocity, or LCHV, parachute is a component of the LCADS that provides an affordable alternative to the components of the current Container Delivery System. The High-V parachute, which will be the low-cost replacement for the existing 26 ft. ring slot chute, is made of lengths of woven polypropylene material sewn at the crown in a cross-hatch pattern, with nylon suspension lines to attach to the containerized load.

Thus far, the Aerial Delivery and Textile Section has shipped over 17,000 parachutes in support of this essential mission.