



## **STRONG ENTERPRISES**

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THE PARACHUTE COMPANY WITH IMAGINATION

### **Product Service Bulletin #30**

**Issue Date:** October 3, 2008

**Subject:** Military Tandem Tether Bundle System, (MTTB)

**Status:** An accident in February 2008 brought a number of issues on the use, care and performance of the major components of the parachute system and MTTB as used on MTTB payload jumps.

Jumping the MTTB system was placed on a hold by the U.S. military until evaluation, redesign and testing of the system could verify that the operational window of jumping the MTTB system met more specific performance criteria.

Strong Enterprises independently performed several MTTB drops to verify the need for improvement in all aspects of the equipment used for MTTB payload drops.

This Service Bulletin focuses only on the MTTB system, the redesign and subsequent testing of a much-improved MTTB/LARS Gen5 system.

**Issues:** During normal MTTB jumps, the MTTB system can be delivered or landed three different ways:

1. Static lined from the jumper under a full open canopy.
2. Released into free-fall to open and land independently from the jumper.
3. Retained by the jumper allowing them to landing with the MTTB attached.

A forth performance capability is to drop the MTTB system from the aircraft independently from the jumper, allowing it to free-fall, activate the recovery parachute by AAD and land the payload.

Normal release of the MTTB system presents no problems to the jumper. On occasion the release of the MTTB system by the jumper can be difficult to impossible to release. This can present a significant problem to the jumper if an emergency arises.

The release handle releases 4 sets of 3-ring releases and a safety cable. Because of the many issues involved: care and maintenance, housing tolerances, worn cables, wear and tear on the system over use, hard pulls on release handle can and have been experienced.

**Redesign and Testing:** Because of these many variable factors, Strong Enterprises has redesigned the release mechanism to allow the payload to assist in releasing the cables, thereby releasing the payload. This method is called the Load Assisted Release System or LARS, (US Patent applied for). The release handle has a single cable going to a single heavy duty 3-ring release that, when released allows the payload to drop 10 inches on the tether, thereby extracting four cables at the standard.

3-ring attachment points (two top, two side.) Static testing has shown this method to have a consistent pull force and is extremely reliable and effective in a wide range of payload weights. Several other modifications also have been incorporated that enhance service life and usefulness of the MTTB/LARS Gen5 system.

**Live Testing:** Live MTTB/LARS Gen5 testing has been performed in a variety of different jumping environments: free-fall with no drogue, free-fall with only the drogue deployed, under full canopy in normal flight and with the main canopy in spinning turns and release after an open main to reserve canopy transfer (performed with Mil-DHT). All modes proved very successful with a minimal amount of effort needed to release the MTTB/LARS Gen5 and jettisoned the payload.

**Status:** Strong Enterprises is requesting all users/owners of the current MTTB configuration to contact Strong Enterprises and make arrangements to have these systems returned for conversion to MTTB/LARS Gen 5 activation system, (US Patent applied for). Strong Enterprises' time to receive, inspect, evaluate and reconfigure systems to the LARS Gen 5 activation system will take five working days. MTTB/LARS Gen 5 systems will be returned via the same method as received. Updated manuals, which include assembly and use instructions, will be included with each system serviced and returned.

**Compliance Date:** Before next MTTB jump.

**Identification:** Military Tandem Tether Bundle System, SE P/N 150305.

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**Further Information:** For additional information, copies of live MTTB/LARS Gen5 testing, Manual, and conversion scheduling, please contact [sales@strongparachutes.com](mailto:sales@strongparachutes.com)

**Distribution:** All owners and users on record.