

Towed Jumper Release System (TJRS)



Airborne Systems Towed Jumper Release System, also known as TJRS, is a static line parachute designed to free a towed jumper from the aircraft by providing an additional recovery parachute. Airborne Systems developed and extensively fielded the HUPRA (Hung Up Parachutist Release Assembly) to respond to a market need for a towed jumper release solution. The Airborne Systems TJRS builds on a long legacy of towed jumper release systems, and updates technology to meet the demands of modern airborne forces.

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The TJRS offers an affordable, user-friendly and reliable solution. Its components are reusable with typical parachute rigging and inspection procedures. It is easy, intuitive, and clear markings provide reminders to reinforce training and prevent any issues from occurring.

The TJRS recovery parachute is a direct adaptation of the T-11 main parachute. Mature and already fielded worldwide, the T-11 is the optimum parachute architecture for the TJRS. Adaptation of the design for TJRS took advantage of Airborne Systems' long experience with this main canopy.

Benefits of the TJRS:

- All TJRS components are reusable with typical parachute rigging and inspection procedures
- TJRS accommodates full weight jumpers for all US military static line systems
- Self-contained kit provides all components required for successful operation
- Use of the system is easy and intuitive, and clear marking provides reminders to reinforce training
- TJRS production systems are durable enough to be reused for training

The TJRS offers a simple mode of operation:

- The static line is connected to a floor ring. The deployment bag is positioned near the door.
- 2. The TJRS Probe is fed through all of the USL snap hooks, and the TJRS Lanyard is then pulled through and centered.
- Both ends of the lanyard are connected to the carabiner, and the system is ready to deploy.
- One jumpmaster positions the TJRS bag in the door, and the other jumpmaster uses the provided cable cutters to sever the anchor line cable.
- 5. The static line snaps slide off the cut end of the anchor line cable, and are restrained by the TJRS Lanyard. Tension in the Lanyard straightens the TJRS riser and pulls the TJRS pack out the door, and static line deployment of the recovery parachute begins.
- 6. The towed jumper descends to the ground safely under the recovery parachute.

TJRS is Designed to Facilitate Training

TJRS was designed with the understanding that much of its service would be in a training environment. All components are reusable, and can be fully inspected, repaired and repacked in typical maintenance facilities. The entire system can be turned around for repeat drops in less than 1 hour, making training operations in aircraft easy to perform.

The system is designed to be easy to train and allow rehearsal using actual equipment. Jumpmasters are able to do refresher training up to the point of cutting the anchor line cable using their actual TJRS, and then re-stow the riser and static line to be ready for flight. The riser and static line stows are reusable with no consumables to allow ground demonstration of the system to unfamiliar users, and rehearsal of procedures without special training aids.



Specifications

Maximum All Up Weight (TJRS)	450 lb
Maximum Deployment Altitude	17,500 MSL
Minimum Deployment Altitude	800 ft AGL
Maximum Deployment Speed	150 KIAS
Maximum Deceleration for 450 lbm at 150 KIAS	7 g
Maximum Rate of Descent for 450 pounds at MSL	22.0 fps
Repack Cycle	365 days
Diameter (nominal)	28.6 ft

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