

PRODUCT DESCRIPTION

# EMERGENCY RELEASE ASSEMBLY

PART NUMBER:	R51100-1
DIMENSIONS:	1-7/8 x 3-1/2 x 9/16
WEIGHT:	.28 LB (127 grams)
RELEASE FORCE:	10 TO 27 LBF
STATUS:	USN QUALIFIED

# **Development of the Emergency Release**

Survival Innovations began development of a replacement for the old "Gunner's Belt" restraint under a support contract to the U.S. Navy in 2004. The program developed an improved mobile aircrew restraint system that would integrate with the existing AIRSAVE Vest and Torso Harness without stitching, designated HBU-26/P. The program ran in parallel with development of a new inertia reel. To meet Berry Amendment and Buy American Act requirements, the system included design, development, test, qualification, and patenting of a unique Emergency Release Assembly.

Three Survival Innovations personnel were honored with the NAWCAD 2012 Patent of the Year Award for the Quick Release Fitting. Survival Innovations holds an exclusive license for commercialization and further development of the release.

In addition, the U.S. Army has begun qualification of a new configuration which accommodates larger diameter rings or carabiners. Other configurations are in development by Survival Innovations for both military and commercial uses.

# **Operational Use of the Emergency Release**

The Aircrew Endurance Vest Program incorporated a sewn-in variant of the HBU-26/P system, designated as HBU-27/P, along with both Fixed and Adjustable Snap Hook Assemblies. Survival Innovations, as the sole source, has produced over 4,000 HBU-27/P Restraint Assemblies for the initial orders of Aircrew Endurance Vests.

#### **Unique Features:**

- Controlled release under load: 10-27 pounds under suspended load
- Maximum strength: 5,000 pounds
- Meets Personal Fall Arrest system requirements of ANSI Z359.1
- Attaches to either fabric loop or standard hardware (D-Ring, Carabiner)
- Ease of reattachment of fitting after release
- Based on a design that is qualified by the U.S. Navy
- Tested in accordance with MIL-STD-810
- Berry Amendment and Buy America Act compliant parts

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# **Emergency Release Assembly Applications**



# **Harness Integration**

The Emergency Release has been integrated into a Torso Harness for use with or without a Survival Vest and Ballistic Armor plates.

One version has a Chest Strap with Carabiner to provide lifting capability if used without a vest. Accessories are provided to allow the Harness to be worn with a vest: a Hoisting Strap and an Attachment Panel for securing Release Handle to Vest.

The Release Handle is mounted on the shoulder, allowing the crewmember to pull the Release Handle and obtain immediate release.

The Release Handle retracts after operation, and the Emergency Release fitting may be re-attached.



#### **Tether Variant**

The Emergency Release has been used as part of a stand-alone Tether Assembly, connecting a lifting harness or integrated harness-vest to a Snap Hook Strap or a retractable inertia reel Strap.

An extension positions the Release Handle on the chest via MOLLE attachments.

The Release Handle is housed in a sheath on the Tether, allowing the crewmember to reach up, pull the Release Handle, and obtain immediate release.

The Release Handle retracts after operation, and the Emergency Release fitting may be re-attached.



# **Stand-alone Tether Assembly**

The Emergency Release has been designed into a stand-alone Tether Assembly to provide aft lifting loop restraint capability.

A rescue-grade carabiner provides secure attachment to a vest lifting loop.

The Release Assembly may be attached to a tether D-ring, an adjustable tether, an inertia reel connector, a Carabiner, a lifting Hook, or other restraint.

The Release Handle is housed in a sheath on the Tether Assembly, reducing the possibility of a snag hazard. The Release Handle is easily accessible by reaching up to the Tether Assembly. A pull on the Release Handle disconnects the Release Assembly, then the Release Handle retracts back into the sheath.



### **Vest Integration**

The Emergency Release is also part of a Tether Assembly designed for use with a Vest Assembly having aft lifting loop capabilities.

A connecting loop and securing loop combination with a Rapide link provides secure attachment to a vest lifting loop.

A cable housing extends across the shoulder to a Release Handle mounted on the chest to MOLLE straps.

The Release Handle attaches with a single snap fastener which may be re-snapped after use, and the Emergency Release fitting may be re-attached. A self-retracting version is in design stages

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