



IMMEDIATE RESPONSE FORCE (IRF) SOLDIER OFFLOAD

PROJECT OVERVIEW

The IRF Soldier Offload integrates the T-11 personnel parachute to the Caster Assisted Aerial Delivery System (CAADS) as a method to offload weight from airborne forces (jumpers). The T-11 is able to carry more cargo weight than current methods, and CAADS allows for 3 times as many cargo bundles/aircraft, thus offloading additional payload from the jumpers. Out of service T-11 personnel parachutes, including both the T-11 main and T-11 reserve parachutes will be re-purposed as the main door bundle parachute and have been tested with loads ranging up to 500 lbs each.

BENEFITS

The IRF Soldier Offload effort reduces aircraft exit and ground impact injury susceptibility by offloading up to 3,000 pounds (six 500 lb CAADS deployed/aircraft) from jumpers per aircraft. This equates to 46 lbs/jumper on a C-130 x 64 jumpers and 30 lbs/jumper on a C-17 x 100 jumpers. A 30 to 46 lb weight reduction results in landing velocity reduction of approximately 0.8 to 1.4 ft/s or up to 7% reduction, which significantly reduces the chance of injury. Additionally, the conversion of expired personnel parachutes to cargo use reduces demand for and saves an estimated \$2150 per parachute over one-time use cargo parachute systems.



CAADS bundle equipped with a T-11 main parachute loaded on aircraft (left) and the bundle in flight under canopy (right)

PATH FORWARD

All testing is completed and a draft safety confirmation has been prepared by Army Evaluation Center. The project team has transitioned draft manuals and ballistics data from testing to PdM Force Sustainment Systems (FSS) and is supporting a PdM FSS led working group to complete remaining actions (e.g., published manuals, NSN assignment, authorizations, etc.) for field use of the T-11 cargo. It is expected that final approvals will be completed by the end of Fiscal Year 2024, allowing for use by Army and Air Force users.

DoD Executive Agent

Office of the Assistant Secretary of the Army for Installations, Energy, and Environment

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FOR FURTHER INFORMATION

National Defense Center for Energy and Environment

<http://www.denix.osd.mil/ndcee/home>

U.S. Army Combat Capabilities Development Command Soldier Center, Soldier Sustainment Directorate

<https://sc.devcom.army.mil/>