



ROLLER LOAD TEST FACILITY (RLTF)

OVERVIEW:

The Roller Load Test Facility (RLTF) is equipped with a 34 foot I-beam frame supporting 160 instrumented rollers (bi-directional, C-17) that can be positioned for C-17 (airdrop/logistics) and C-130 (J&H) aircraft roller configurations. This one-of-a kind facility, in conjunction with NSRDEC's Airdrop Certification Program, provides the Air Force's Air Transportability Test Loading Activity (ATTLA) the proof-loads and roller load data required for Air Transport Certification.

DESCRIPTION:

The RLTF provides restraint testing of airdrop/air transport platforms, meeting the requirements described in MIL-DTL-27443F, MIL-STD-814D and MIL-HDBK-669/1791, by using the 100K-lb capacity hydraulic piston and two 30K-lb capacity gantry cranes (each with two hooks (15K-lb capacity)). The 40 ton capacity Drop Tower (crane hook maximum height is 37.5-ft), with an oversized block, is capable of releasing payloads (impact testing) up to its rated capacity. In addition to drop testing, steel weights of various sizes totaling 75K-lbs are utilized for the ballasting of containers, frames, platforms, shelters, etc., for CG and proof-load tests. Dynamic testing is routinely requested on torso dummies (300-lb) for extraction/rescue belts & vests, tether lines and personnel parachute harnesses/hardware and systems (both functional and investigative). Unique dynamic tests have also been developed to meet applications not attainable elsewhere for contractor items under NSRDEC's Test Service Agreements (TSA). Additional capabilities include a Slide Impact Test that uses a 55-ft cable oriented at 45-degrees for testing personnel parachutist's lowering line items (e.g. PDB, ALICE and MOLLE Packs). A required impact velocity of 31-34 ft. / sec is monitored and captured using digital high-speed video at 1000 frames/sec. In addition, high-speed cameras are utilized during testing to analyze and document actions that occur faster than the human eye can distinguish.

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Aircraft-Representative Rollers

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