

Test Catapult Complex



The Steam Catapult Complex

The Test Catapult Complex is composed of the TC13 Mod 0 and TC13 Mod 2 Steam Catapults, and a high pressure steam plant, located at the threshold of a 12,000 foot long runway. This test facility is used to simulate the launching of naval aircraft from the flight deck of US Navy aircraft carriers. These test catapults are capable of launching both aircraft and deadloads, thus allowing both manned and unmanned testing.

The Test Catapult Complex

Technical Data:

- **Launch Energy:**
 - TC13 Mod 0:
62 million ft-lbs
 - TC13 Mod 2:
99 million ft-lbs
- **Launch Stroke:**
 - TC13 Mod 0:
250 feet
 - TC13 Mod 2:
310 feet
- **Cycle Time:**
45 seconds both cats
- **End Speed (F-14 heavyweight):**
 - TC13 Mod 0:
120 knots
 - TC13 Mod 2:
145 knots
- **Max Acceleration:**
 - TC13 Mod 0:
6 G's
 - TC13 Mod 2:
5 G's

Both catapults at the test complex are capable of launching weights up to 100,000 pounds and producing endspeeds up to 185 knots. The steam plant is capable of 138,000 pounds per hour. A unique feature of the test site is the capability of launching deadloads. Recessed guide slots are used to maintain stability of the four wheeled vehicles, and a friction brake brings the vehicle to a stop after release at the end of the power stroke. Although used primarily for testing catapult performance, the site can be used as a linear acceleration/ deceleration force platform for testing such things as drop tanks, cargo slings, aircraft fuel tanks, and fuel cells. The object under test can be oriented to obtain programmed forces in the X, Y or Z axis, and loads up to 15 G's when required.

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