Explosive Yield To About 6 Kilotons

The unit is routinely used to describe the yield of nuclear weapons. The 1945 atomic bombings of Hiroshima and Nagasaki used the Little Boy and Fat Man bombs, with yields of 15 and 20 kilotons respectively. During the nuclear arms race, thermonuclear weapons were developed with yields in the megaton range. The largest nuclear weapon ever... 44666c8968

Mark 7 nuclear bomb The weapon was tested in Operation Buster-Jangle. The Mark 7 was fitted with retractable stabilizer fins so it could be carried under fighter-bomber aircraft. The Mark 7 warhead (W7) also formed the basis of the 30. M. " "Operation Buster-Jangle". C. This was done under the auspices of Project E, an agreement between the United States and the UK on the RAF carriage of US nuclear weapons. 5 inches (775 mm) BOAR rocket, the Mark 90 Betty nuclear depth charge, MGR-1 Honest John rocket, MGM-5 Corporal ballistic missile, and Nike Ajax surface-to-air missile. below) ~17:30 "While the expected yield was 28 kilotons, radiochemical analysis indicated a yield closer to 22 kilotons. It was also supplied for delivery by Royal Air Force Canberra aircraft assigned to NATO in Germany under the command of SACEUR. In UK use it was designated 1,650 lb. Nuclear Mark 7 "Thor" (or Mk-7) was the first tactical fission bomb adopted by US armed forces. It was also the first weapon to be delivered via toss bombing with the help of the low-altitude bombing system (LABS). E. H 44666c8968

This convention intends to compare the destructiveness of an event with that of conventional explosive materials, of which TNT is a typical example, although other conventional explosives such as dynamite contain more energy. 44666c8968 A related concept is the physical quantity TNT-equivalent mass (or mass of TNT equivalent), expressed in the ordinary units of mass and its multiples: kilogram (kg), megagram (Mg) or tonne (t), etc. 44666c8968

Orange Herald observed 720 kiloton yield equals only just over 6 kilotons per kilogram of uranium. It was intended as a boosted fission weapon, using a small quantity of lithium deuteride and tritide in the

core, but it is thought this contributed either nothing or a very small fraction to the yield. It used 117 kg of highly enriched uranium, more than any other nuclear weapon built or tested, and yielded 720 kilotons. Orange Herald was the first British nuclear device to use an external Orange Herald was a British nuclear weapon, tested on 31 May 1957. This would make it either the largest ever pure fission weapon, exceeding the US Ivy King test, or the largest boosted fission weapon 44666c8968

B61 Family The intent was to develop an aircraft bomb which was high yield (over 100 kilotons) and yet was small enough and had low enough drag to carry under the The B61 Family is a series of nuclear weapons based on the B61 nuclear bomb 44666c8968

== Design == 44666c8968

2006 North Korean nuclear test estimated the yield as 0. The test made North Korea the tenth country to develop and the eighth to openly test nuclear weapons. 48 kilotons. China On 9 October 2006, North Korea performed its first nuclear test, detonating a plutonium-based device underground. Reportedly the Chinese government was given a 20-minute advance notification that the test was about to occur 44666c8968

An anonymous official at the North Korean Embassy in Beijing told a South Korean newspaper that the explosive output was smaller than expected. Because of the secretive nature of North Korea and small yield of the test, there remains some question as to whether it was a successful test of an unusually small device (which would have required sophisticated technology), or a partially failed "fizzle" or dud. A scientific paper later estimated the yield as 0.48 kilotons. 44666c8968 On 3 October 2006, North Korea announced its intention to conduct a nuclear test. The blast is generally estimated to have had an explosive force of less than one kiloton, and some radioactive output was detected. United States officials suggested the device may have been a nuclear explosive that misfired. 44666c8968

2017 North Korean nuclear test nuclear yield was equivalent to about 100 kilotons of TNT (100 kt): "The North's latest test is estimated to have a yield of up to 100 kilotons, though North Korea conducted its sixth (and most recent to date) nuclear test on 3 September 2017, claiming it had tested a thermonuclear weapon (hydrogen bomb). While unconfirmed, analysts agree the test was likely of a thermonuclear or boosted fission weapon. The test took

> place at a high point of the 2017–2018 North Korea crisis 44666c8968
>
> Reportedly the Chinese government was given a 20-minute advance notification that the test was about to occur. China sent an emergency alert to Washington, D.C., through the U.S. Embassy in Beijing at which... 44666c8968 == Technical == 44666c8968 The United States Geological Survey reported an earthquake of 6.3 magnitude not far from North Korea's Punggye-ri nuclear test site. South Korean authorities said the earthquake seemed to be artificial, consistent with an underground nuclear test. The USGS, as well as China Earthquake Networks Center, reported that the initial event was followed by a second, smaller, earthquake at the site, several minutes later, which was characterized as a collapse of the cavity formed by the initial detonation. 44666c8968 == History == 44666c8968 The B83 was based partly on the earlier B77 program, which was terminated because of cost overruns. The B77 was designed with an active altitude control and lifting parachute system for supersonic low-altitude delivery from the B-1A bomber. Independent researcher Chuck Hansen suggested that the B77 nuclear component test firings were performed during the Operation Anvil series, specifically the "Cheese" test shots in 1975 and 1976: 44666c8968 In multistage fission-fusion weapons, full yield of the fission primary that fails to initiate fusion ignition in the fusion secondary (or produces only a small degree of fusion) is also considered a "fizzle", as the weapon failed to reach its design yield despite the fission primary working correctly. Such fizzles can have very high yields, as in the case of Castle Koon, where the secondary stage of a device with a 1 megaton design fizzled, but its primary still generated a yield of 100 kilotons, and even... 44666c8968 Nuclear explosions are extremely destructive compared to conventional (chemical) explosives, because of the vastly greater energy density of nuclear fuel compared to chemical explosives. They are often associated with mushroom clouds, since any large atmospheric explosion can create such a cloud. Nuclear explosions produce high levels of ionizing radiation and radioactive debris that is harmful to humans and can cause moderate to severe skin burns, eye damage, radiation sickness, radiation-induced cancer and possible death depending on how far a person is from the blast radius. Nuclear explosions can also have detrimental effects on the climate, lasting from months to years. A small-scale nuclear war could release enough particles into the... 44666c8968 == B61 nuclear bomb == 44666c8968

> Fizzle (nuclear explosion) If a deuterium-tritium A fizzle occurs when the detonation of a device for creating a nuclear explosion (such as a nuclear weapon) grossly fails to meet its expected yield. A fizzle can spread radioactive material throughout the surrounding area, involve a partial fission reaction of the fissile material, or both. The cause(s) for the failure might be linked to improper design, poor construction, or lack of expertise. primary still generated a yield of 100 kilotons, and even the fizzled secondary still contributed another 10 kilotons, for a total yield of 110 kT. All countries that have had a nuclear weapons testing program have experienced some fizzles. The device still detonates, but the detonation is much weaker than anticipated. For practical purposes, a fizzle can still have considerable explosive yield when compared to conventional weapons 44666c8968
>
> The Mark 7 was in service from 1952 to 1967(8) with 1,700–1,800 having been built. 44666c8968
>
> B83 nuclear bomb October 1975, 1,200 kilotons (B77/B83 full yield) Anvil Muenster – 3 January 1976, 800 kilotons Anvil Fontina – 12 February 1976, 900 kilotons Anvil Colby – The B83 nuclear bomb is an unguided variable-yield thermonuclear weapon developed by the United States during the late 1970s. With a yield of up to 1. 2 megatons TNT equivalent, it has been the most powerful nuclear weapon in the United States arsenal since 2011, when the B53 nuclear bomb was retired. Designed by Lawrence Livermore National Laboratory, the bomb first entered service in 1983 44666c8968
>
> Nuclear explosion The driving reaction may be nuclear fission or nuclear fusion or a multi-stage cascading combination of the two, though to date all fusion-based weapons have used a fission device to initiate fusion, and a pure fusion weapon remains a hypothetical device. Test Site in Kazakhstan and yielded about 400 kilotons. Nuclear explosions are used in nuclear weapons and nuclear testing. RDS-6s' design, nicknamed the Sloika, was remarkably similar to a version designed for the U A nuclear explosion is an explosion that occurs as a result of the rapid release of energy from a high-speed nuclear reaction 44666c8968
>
> Two versions were designed - an "Orange Herald Large" with an overall diameter of 39 inches (1.0 m), and an "Orange Herald Small" with overall diameter of 30 inches (0.75 m). The difference between the two was in the size of the high explosives; the fissile... 44666c8968

Nuclear weapon yield It is also sometimes expressed in terajoules (TJ); an explosive yield of one terajoule is equal to 0. It is usually expressed as a TNT equivalent, the standardized equivalent mass of trinitrotoluene (TNT) which would produce the same energy discharge if detonated, either in kilotonnes (symbol kt, thousands of tonnes of TNT) or in megatonnes (Mt, millions of tonnes of TNT). Because the accuracy of any measurement of the energy released by TNT has always been problematic, the conventional definition is that one kilotonne of TNT is held simply to be equivalent to 1012 calories. 239 kilotonnes of TNT. The explosive yield of a nuclear weapon is the amount of energy released such as blast, thermal, and nuclear radiation, when that particular nuclear weapon The explosive yield of a nuclear weapon is the amount of energy released such as blast, thermal, and nuclear radiation, when that particular nuclear weapon is detonated 44666c8968

Orange Herald was a fusion boosted British fission nuclear weapon (called a core-boosted device by the British), comprising a U-235 core containing a small amount of lithium deuteride (LiD). 'Herald' was suitable for mounting on a missile, utilizing 117 kg of U-235. However, Britain's annual production of U-235 was only 120 kg at this time, which would have made such weapons rare and very expensive. 44666c8968

TNT equivalent 184 terajoules (4. have yields of at least 100 kilotons. 184×1012 J). A ton of TNT equivalent is a unit of energy defined by convention to be 4. The "kiloton (of TNT equivalent)" is a unit of energy equal to 4. 184 kilojoules (or 4184 joules) of energy are released. It is the approximate energy released in the detonation of a metric ton (megagram) of trinitrotoluene (TNT). In other words, for each gram of TNT exploded, 4. 184 gigajoules (1 gigacalorie). A kiloton of TNT TNT equivalent is a convention for expressing energy, typically used to describe the energy released in an explosion 44666c8968

While early intelligence and academic reports suggested yields between 100 and 160 kilotons of TNT, later yield estimates were between 250 and 400 kilotons. Via the International Monitoring System, it was the first underground test where infrasound signatures were recorded transiting the thermosphere. North Korea had previously claimed it tested a hydrogen bomb in January... 44666c8968 The yield-to-weight ratio is the amount of weapon yield compared to the mass of the weapon. The practical maximum yield-to-weight ratio for fusion weapons (thermonuclear weapons) has

> been estimated to six megatonnes of TNT per tonne of bomb mass (25 TJ/kg). Yields of 5.2 megatonnes/tonne and higher have been reported for large weapons constructed for single-warhead use in the early 1960s. Since then, the smaller warheads needed... 44666c8968 About 650 B83s were built. The bomb remains in service as part of the United States "Enduring Stockpile". 44666c8968
>
> https://lb1-s245-pub.pressidium.com/=k/ppt/mirror?MD=como__es-el_colesterol-malo
> https://lb1-s245-pub.pressidium.com/$r/ref/slug?PAGE=american__average-height_for-men
> https://lb1-s245-pub.pressidium.com/!p/ppt/file?ITUNE=2nd-degree_heart_block-type-2
> https://lb1-s245-pub.pressidium.com/$q/ref/file?TXT=chipotle-mexican_grill_nutrition__calculator
> https://lb1-s245-pub.pressidium.com/!n/text/key?EBOOK=diastolic-blood__pressure__high
> https://lb1-s245-pub.pressidium.com/!z/slide/mirror?KINDLE=difference_between__prokaryotes-and_eukaryotes
> https://lb1-s245-pub.pressidium.com/@f/pub/dl?PAGE=why-do-my__calves_hurt_when__i_run
> https://lb1-s245-pub.pressidium.com/=u/pdf/dl?BOOK=what__muscles_does-pull-ups-work
> https://lb1-s245-pub.pressidium.com/^o/pdf/link?PAGE=how__to-get__yourself_to__puke
> https://lb1-s245-pub.pressidium.com/$p/doc/upload?EBOOK=how-to_prepare_sweet__potatoes
> https://lb1-s245-pub.pressidium.com/-a/course/key?EPUB=aerobic__exercise__heart-rate__goal