**Weapon of Mass Destruction**

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| [**Weapons of mass destruction**](http://en.wikipedia.org/wiki/Weapons_of_mass_destruction) |
|  |
| **By type** |
| [Biological warfare](http://en.wikipedia.org/wiki/Biological_warfare)[Chemical warfare](http://en.wikipedia.org/wiki/Chemical_warfare)[Nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapon)[Radiological weapons](http://en.wikipedia.org/wiki/Radiological_weapon) |
| **By country** |
| [Albania](http://en.wikipedia.org/wiki/Albania_and_weapons_of_mass_destruction) | [Algeria](http://en.wikipedia.org/wiki/Algeria_and_weapons_of_mass_destruction) |
| [Argentina](http://en.wikipedia.org/wiki/Argentina_and_weapons_of_mass_destruction) | [Australia](http://en.wikipedia.org/wiki/Australia_and_weapons_of_mass_destruction) |
| [Brazil](http://en.wikipedia.org/wiki/Brazil_and_weapons_of_mass_destruction) | [Canada](http://en.wikipedia.org/wiki/Canada_and_weapons_of_mass_destruction) |
| [PR China](http://en.wikipedia.org/wiki/People%27s_Republic_of_China_and_weapons_of_mass_destruction) | [France](http://en.wikipedia.org/wiki/France_and_weapons_of_mass_destruction) |
| [Germany](http://en.wikipedia.org/wiki/Germany_and_weapons_of_mass_destruction) | [India](http://en.wikipedia.org/wiki/India_and_weapons_of_mass_destruction) |
| [Iran](http://en.wikipedia.org/wiki/Iran_and_weapons_of_mass_destruction) | [Iraq](http://en.wikipedia.org/wiki/Iraq_and_weapons_of_mass_destruction) |
| [Israel](http://en.wikipedia.org/wiki/Israel_and_weapons_of_mass_destruction) | [Japan](http://en.wikipedia.org/wiki/Japan_and_weapons_of_mass_destruction) |
| [Netherlands](http://en.wikipedia.org/wiki/Netherlands_and_weapons_of_mass_destruction) | [North Korea](http://en.wikipedia.org/wiki/North_Korea_and_weapons_of_mass_destruction) |
| [Pakistan](http://en.wikipedia.org/wiki/Pakistan_and_weapons_of_mass_destruction) | [Poland](http://en.wikipedia.org/wiki/Poland_and_weapons_of_mass_destruction) |
| [Russia](http://en.wikipedia.org/wiki/Russia_and_weapons_of_mass_destruction) | [South Africa](http://en.wikipedia.org/wiki/South_Africa_and_weapons_of_mass_destruction) |
| [Syria](http://en.wikipedia.org/wiki/Syria_and_weapons_of_mass_destruction) | [Taiwan (ROC)](http://en.wikipedia.org/wiki/Republic_of_China_and_weapons_of_mass_destruction) |
| [United Kingdom](http://en.wikipedia.org/wiki/United_Kingdom_and_weapons_of_mass_destruction) | [United States](http://en.wikipedia.org/wiki/United_States_and_weapons_of_mass_destruction) |
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*For the Xzibit album, see* [*Weapons of Mass Destruction (album)*](http://en.wikipedia.org/wiki/Weapons_of_Mass_Destruction_%28album%29)*.*

A **weapon of mass destruction** (**WMD**) is a weapon which can kill large numbers of [humans](http://en.wikipedia.org/wiki/Humans), [animals](http://en.wikipedia.org/wiki/Animals) and [plants](http://en.wikipedia.org/wiki/Plants), and/or cause great damage to man-made structures (e.g. buildings) or natural structures (e.g. mountains). The term covers several weapon types, including [nuclear](http://en.wikipedia.org/wiki/Nuclear_weapons), [biological](http://en.wikipedia.org/wiki/Biological_warfare), [chemical](http://en.wikipedia.org/wiki/Chemical_weapons) (**NBC**) and, increasingly, [radiological](http://en.wikipedia.org/wiki/Radiological_weapon) [weapons](http://en.wikipedia.org/wiki/Weapon). There is [controversy](http://en.wikipedia.org/wiki/Weapon_of_mass_destruction#Origin#Origin) over when the term was first used, either in 1937 (in reference to the aerial [bombardment](http://en.wikipedia.org/wiki/Bombing) of [Guernica](http://en.wikipedia.org/wiki/Bombing_of_Guernica), [Spain](http://en.wikipedia.org/wiki/Spain)) or in 1945 (with reference to nuclear weapons). Following the [atomic bombings of Hiroshima and Nagasaki](http://en.wikipedia.org/wiki/Atomic_bombings_of_Hiroshima_and_Nagasaki), and progressing through the [Cold War](http://en.wikipedia.org/wiki/Cold_War), the term came to refer more to non-[conventional weapons](http://en.wikipedia.org/wiki/Conventional_weapon). The phrase entered widespread usage in relation to the [U.S.-led](http://en.wikipedia.org/wiki/Multinational_force_in_Iraq) [2003 invasion of Iraq](http://en.wikipedia.org/wiki/2003_invasion_of_Iraq). Terms used in a military context include *atomic, biological, and chemical warfare* (ABC warfare), nuclear, biological, and chemical (NBC) after the invention of the [hydrogen bomb](http://en.wikipedia.org/wiki/Hydrogen_bomb), and [chemical, biological, radiological, and nuclear](http://en.wikipedia.org/wiki/Chemical%2C_biological%2C_radiological%2C_and_nuclear) (CBRN), recognizing the threat of [subcritical](http://en.wikipedia.org/wiki/Subcritical) radiological weapons.

Due to the indiscriminate impacts caused by WMD, the fear of WMD has shaped political policies and campaigns, fostered social movements, and has been the central theme of many films. Support for different levels of WMD development and control varies nationally and internationally. Yet understanding of the nature of the threats is not high, in part because of imprecise usage of the term by politicians and the media.

**Historic use of the term *WMD***

*"Who can think at this present time without a sickening of the heart of the appalling slaughter, the suffering, the manifold misery brought by war* [*to Spain*](http://en.wikipedia.org/wiki/Spanish_Civil_War) *and to China? Who can think without horror of what another widespread war would mean, waged as it would be with all the new weapons of mass destruction?"*

At that time, there were no [nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapons); [biological weapons](http://en.wikipedia.org/wiki/Biological_weapons) were already being researched by [Japan](http://en.wikipedia.org/wiki/Japan), (see [Unit 731](http://en.wikipedia.org/wiki/Unit_731)), and [chemical weapons](http://en.wikipedia.org/wiki/Chemical_weapons) had seen wide use.

The application of the term to specifically nuclear and [radiological weapons](http://en.wikipedia.org/wiki/Radiological_weapons) is traced by [William Safire](http://en.wikipedia.org/wiki/William_Safire) to the Russian phrase *oruziye massovovo porazheniya*. He credits James Goodby (of the [Brookings Institution](http://en.wikipedia.org/wiki/Brookings_Institution)) with tracing what he considers the earliest known English-language use soon after the nuclear bombing of [Hiroshima](http://en.wikipedia.org/wiki/Hiroshima) and [Nagasaki](http://en.wikipedia.org/wiki/Nagasaki) (although it is not quite verbatim): a communique from a [November 15](http://en.wikipedia.org/wiki/November_15), [1945](http://en.wikipedia.org/wiki/1945) meeting of [Harry Truman](http://en.wikipedia.org/wiki/Harry_Truman), [Clement Attlee](http://en.wikipedia.org/wiki/Clement_Attlee) and [Mackenzie King](http://en.wikipedia.org/wiki/Mackenzie_King) (probably drafted by [Vannevar Bush](http://en.wikipedia.org/wiki/Vannevar_Bush) — or so Bush claimed in 1970) referred to "weapons adaptable to mass destruction". That exact phrase, says Safire, was also used by [Bernard Baruch](http://en.wikipedia.org/wiki/Bernard_Baruch) in 1946 (in a speech at the [United Nations](http://en.wikipedia.org/wiki/United_Nations) probably written by [Herbert Bayard Swope](http://en.wikipedia.org/wiki/Herbert_Bayard_Swope)). The same phrase found its way into the UN resolution to create the [Atomic Energy Commission](http://en.wikipedia.org/wiki/United_Nations_Atomic_Energy_Commission) (predecessor of the [International Atomic Energy Agency (IAEA)](http://en.wikipedia.org/wiki/International_Atomic_Energy_Agency)), which used the wording "…atomic weapons and of all other weapons adaptable to mass destruction".

An exact use of this term was given in a lecture "[Atomic Energy](http://en.wikipedia.org/w/index.php?title=Atomic_Energy&action=edit) as an Atomic Problem" by [J. Robert Oppenheimer](http://en.wikipedia.org/wiki/J._Robert_Oppenheimer). The lecture was delivered to the [Foreign Service](http://en.wikipedia.org/wiki/Foreign_Service) and the [State Department](http://en.wikipedia.org/wiki/State_Department), on September 17th, 1947. The lecture is reprinted in *The Open Mind* (New York: Simon and Schuster, 1955). "It is a very far reaching control which would eliminate the rivalry between nations in this field, which would prevent the surreptitious arming of one nation against another, which would provide some cushion of time before atomic attack, and presumably therefore before any attack with weapons of mass destruction, and which would go a long way toward removing atomic energy at least as a source of conflict between the powers."

An early use of the exact phrase in an [international treaty](http://en.wikipedia.org/wiki/International_treaty) was in the [Outer Space Treaty](http://en.wikipedia.org/wiki/Outer_Space_Treaty) of 1967, however no definition was provided.

**The Cold War and the War against Terrorism**

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|  | **The** [**tone**](http://en.wikipedia.org/wiki/Wikipedia%3ATONE) **or style of this article or section may not be appropriate for Wikipedia.**Specific concerns may be found on the [talk page](http://en.wikipedia.org/wiki/Talk%3AWeapon_of_mass_destruction). See Wikipedia's [guide to writing better articles](http://en.wikipedia.org/wiki/Wikipedia%3AGuide_to_writing_better_articles) for suggestions.**(December 2007)** |

The term "*WMD*" had fallen out of use since the early [Cold War](http://en.wikipedia.org/wiki/Cold_War) era, when it was primarily a reference to nuclear weapons. At the time, the US stockpiles of thermonuclear weapons were regarded as a necessary deterrent against an all-out strike from the [Soviet Union](http://en.wikipedia.org/wiki/Soviet_Union) (see [Mutual Assured Destruction](http://en.wikipedia.org/wiki/Mutual_Assured_Destruction)). Hence the less dysphemistic military term *strategic weapons* fell into favor with US policy-makers who approved of, or at least condoned, the amassed [American](http://en.wikipedia.org/wiki/United_States) nuclear arsenal.

In 1990 and during the 1991 [Gulf War](http://en.wikipedia.org/wiki/Gulf_War), *WMD* was resurrected and used widely by members of [the Clinton Administration](http://en.wikipedia.org/wiki/The_Clinton_Administration), including [Madeleine Albright](http://en.wikipedia.org/wiki/Madeleine_Albright), [Samuel Berger](http://en.wikipedia.org/wiki/Sandy_Berger) and [William Cohen](http://en.wikipedia.org/wiki/William_Cohen), by other western politicians and by the media. They referred more specifically to the [chemical weapons](http://en.wikipedia.org/wiki/Chemical_weapons) that were in [Iraq](http://en.wikipedia.org/wiki/Iraq) under [Hussein’s](http://en.wikipedia.org/wiki/Saddam_Hussein) regime. "Weapons of mass destruction" replaced "strategic weapons" in the common American lexicon. After [9/11](http://en.wikipedia.org/wiki/September_11%2C_2001_attacks), it would be the [anthrax attacks](http://en.wikipedia.org/wiki/2001_anthrax_attacks), and the multitude of hypothetical smallpox terrorist attack scenarios in the media that would shape the prevalent image of a weapon of mass destruction into a device of [bioterrorism](http://en.wikipedia.org/wiki/Bioterrorism). This usage reached a crescendo with the 2002 [Iraq disarmament crisis](http://en.wikipedia.org/wiki/Iraq_disarmament_crisis) and the [alleged existence](http://en.wikipedia.org/wiki/Yellowcake_forgery) of weapons of mass destruction in Iraq that became the primary justification for the [2003 invasion of Iraq](http://en.wikipedia.org/wiki/2003_invasion_of_Iraq). Because of its prolific use, the [American Dialect Society](http://en.wikipedia.org/wiki/American_Dialect_Society) voted WMD the [word of the year](http://en.wikipedia.org/wiki/Word_of_the_Year) in 2002, and in 2003 [Lake Superior State University](http://en.wikipedia.org/wiki/Lake_Superior_State_University) added WMD to its list of terms banished for "*Mis-use, Over-use and General Uselessness*".

The most widely used definition is that of nuclear, biological or chemical weapons (NBC) although there is no [treaty](http://en.wikipedia.org/wiki/Treaty) or customary [international law](http://en.wikipedia.org/wiki/International_law) that contains an authoritative definition. Instead, international law has been used with respect to the specific categories of weapons within WMD, and not to WMD as a whole.

The acronym NBC is used with regards to [battlefield protection](http://en.wikipedia.org/w/index.php?title=Battlefield_protection&action=edit) systems for [armored vehicles](http://en.wikipedia.org/wiki/Armored_vehicles), because all three involve insidious toxins that can be carried through the air and can be protected against with vehicle [air filtration](http://en.wikipedia.org/wiki/Air_filtration) systems. However, there is an argument that nuclear weapons do not belong in the same category as chemical, biological, or "[dirty bomb](http://en.wikipedia.org/wiki/Dirty_bomb)" radiological weapons, which have limited destructive potential (and close to none, as far as property is concerned), whereas nuclear weapons are immensely destructive and could be said to belong in a class by themselves.

The NBC definition has also been used in official U.S. documents, by the [US President](http://en.wikipedia.org/wiki/President_of_the_United_States) the [US Central Intelligence Agency](http://en.wikipedia.org/wiki/CIA), the [US Department of Defense](http://en.wikipedia.org/wiki/United_States_Department_of_Defense), and the [US General Accounting Office](http://en.wikipedia.org/wiki/Government_Accountability_Office).

Other documents expand the definition of WMD to also include radiological or [conventional weapons](http://en.wikipedia.org/wiki/Conventional_weapon). The [US military](http://en.wikipedia.org/wiki/US_military) refers to WMD as:

*Weapons that are capable of a high order of destruction and/or of being used in such a manner as to destroy large numbers of people. Weapons of mass destruction can be high explosives or nuclear, biological, chemical, and radiological weapons, but exclude the means of transporting or propelling the weapon where such means is a separable and divisible part of the weapon.*

The significance of the words *separable and divisible part of the weapon* is that missiles such as the [Pershing II](http://en.wikipedia.org/wiki/Pershing_II) and the [SCUD](http://en.wikipedia.org/wiki/SCUD) are considered weapons of mass destruction, while aircraft capable of carrying bombloads are not.

While in US [civil defense](http://en.wikipedia.org/wiki/Civil_defense), the category is now **Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE)**, which defines WMD as:

*(1) Any* [*explosive*](http://en.wikipedia.org/wiki/Explosive)*,* [*incendiary*](http://en.wikipedia.org/wiki/Incendiary_device)*,* [*poison gas*](http://en.wikipedia.org/wiki/Poison_gas)*,* [*bomb*](http://en.wikipedia.org/wiki/Bomb)*,* [*grenade*](http://en.wikipedia.org/wiki/Grenade)*, or* [*rocket*](http://en.wikipedia.org/wiki/Rocket) *having a* [*propellant*](http://en.wikipedia.org/wiki/Propellant) *charge of more than four ounces [113 g],* [*missile*](http://en.wikipedia.org/wiki/Missile) *having an explosive or incendiary charge of more than one-quarter ounce [7 g], or* [*mine*](http://en.wikipedia.org/wiki/Land_mine) *or device similar to the above. (2) Poison gas. (3) Any weapon involving a disease organism. (4) Any weapon that is designed to release* [*radiation*](http://en.wikipedia.org/wiki/Radioactive_contamination) *at a level dangerous to human life.* This definition derives from US law, 18 U.S.C. Section 2332a and the referenced 18 USC 921. Indictments and convictions for possession and use of WMD such as truck bombs, pipe bombs, shoe bombs, cactus needles coated with botulin toxin, etc. have been obtained under 18 USC 2332a.

The US [FBI](http://en.wikipedia.org/wiki/FBI) also considers [conventional weapons](http://en.wikipedia.org/wiki/Conventional_weapons) (i.e. bombs) as WMD: "*A weapon crosses the WMD threshold when the consequences of its release overwhelm local responders*". [Gustavo Bell Lemus](http://en.wikipedia.org/wiki/Gustavo_Bell_Lemus), the Vice President of [Colombia](http://en.wikipedia.org/wiki/Colombia), at the 2001 United Nations [Conference on the Illicit Trade in Small Arms and Light Weapons in All Its Aspects](http://en.wikipedia.org/w/index.php?title=Conference_on_the_Illicit_Trade_in_Small_Arms_and_Light_Weapons_in_All_Its_Aspects&action=edit), quoted the [Millennium Report](http://en.wikipedia.org/w/index.php?title=Millennium_Report&action=edit) of the [UN Secretary-General](http://en.wikipedia.org/wiki/UN_Secretary-General) to the [General Assembly](http://en.wikipedia.org/wiki/General_Assembly), in which [Kofi Annan](http://en.wikipedia.org/wiki/Kofi_Annan) said that [small arms](http://en.wikipedia.org/wiki/Small_arms) could be described as WMD because the fatalities they cause "*dwarf that of all other weapons systems - and in most years greatly exceed the toll of the atomic bombs that devastated* [*Hiroshima*](http://en.wikipedia.org/wiki/Hiroshima) *and* [*Nagasaki*](http://en.wikipedia.org/wiki/Nagasaki)".

Chemical weapons expert Gert G. Harigel considers only nuclear weapons true weapons of mass destruction, because "only nuclear weapons are completely indiscriminate by their explosive power, heat radiation and radioactivity, and only they should therefore be called a weapon of mass destruction". He prefers to call chemical and biological weapons "weapons of terror" when aimed against civilians and "weapons of intimidation" for soldiers. Testimony of one such soldier expresses the same viewpoint. For a period of several months in the winter of 2002-2003, [US Deputy Secretary of Defense](http://en.wikipedia.org/wiki/US_Deputy_Secretary_of_Defense) [Paul Wolfowitz](http://en.wikipedia.org/wiki/Paul_Wolfowitz) frequently used the term "weapons of mass terror," apparently also recognizing the distinction between the psychological and the physical effects of many things currently falling into the WMD category.

An additional condition often implicitly applied to WMD is that the use of the weapons must be strategic. In other words, they would be designed to "*have consequences far outweighing the size and effectiveness of the weapons themselves*". The strategic nature of WMD also defines their function in the military doctrine of [total war](http://en.wikipedia.org/wiki/Total_war) as targeting the means a country would use to support and supply its war effort, specifically its population, industry, and natural resources.

[*The Washington Post*](http://en.wikipedia.org/wiki/The_Washington_Post) reported on 3/30/2006: "Jurors asked the judge in the [death penalty](http://en.wikipedia.org/wiki/Death_penalty) trial of [Zacarias Moussaoui](http://en.wikipedia.org/wiki/Zacarias_Moussaoui) today to define the term "weapons of mass destruction" and were told it includes airplanes used as missiles". Moussaoui was indicted and tried for the use of airplanes as WMD under 18 USC 2332a (see above).

**WMD use and control**

*See also:* [*Arms control*](http://en.wikipedia.org/wiki/Arms_control)

The development and use of WMD is governed by international [conventions and treaties](http://en.wikipedia.org/wiki/Conventions_and_treaties), although not all countries have signed and ratified them:

* [Partial Test Ban Treaty](http://en.wikipedia.org/wiki/Partial_Test_Ban_Treaty)
* [Outer Space Treaty](http://en.wikipedia.org/wiki/Outer_Space_Treaty)
* [Nuclear Non-Proliferation Treaty](http://en.wikipedia.org/wiki/Nuclear_Non-Proliferation_Treaty) (NPT)
* [Seabed Arms Control Treaty](http://en.wikipedia.org/wiki/Seabed_Arms_Control_Treaty)
* [Comprehensive Test Ban Treaty](http://en.wikipedia.org/wiki/Comprehensive_Test_Ban_Treaty) (CTBT)
* [Biological and Toxin Weapons Convention](http://en.wikipedia.org/wiki/Biological_and_Toxin_Weapons_Convention) (BWC)
* [Chemical Weapons Convention](http://en.wikipedia.org/wiki/Chemical_Weapons_Convention) (CWC)

In 1996 the [International Court of Justice provided an advisory opinion](http://en.wikipedia.org/wiki/Advisory_Opinion_of_the_International_Court_of_Justice_of_8_July_1996) regarding the use and threat of use of nuclear weapons. The statement is an authoritative legal pronouncement but not legally binding. It stated that any threat of the use of force, or the use of force, by means of nuclear weapons that is contrary to Article 2, paragraph 4 of the [United Nations Charter](http://en.wikipedia.org/wiki/United_Nations_Charter) or that fails to meet all the requirements of Article 51 would be unlawful.

Adopted by the [UN Security Council](http://en.wikipedia.org/wiki/UN_Security_Council) on [April 28](http://en.wikipedia.org/wiki/April_28), [2004](http://en.wikipedia.org/wiki/2004), UN Resolution 1540 recognizes the threat posed to international peace and security by nuclear, chemical and biological weapons, as well as their means of delivery. It calls upon greater effort by nations to limit proliferation of such weapons.

Weapons of mass destruction, especially nuclear weapons, are rarely used because their use is essentially an "invitation" for a WMD retaliation, which in turn could escalate into a war so destructive it could easily destroy huge segments of the world's population. During the Cold War, this understanding became known as [mutually assured destruction](http://en.wikipedia.org/wiki/Mutually_assured_destruction) and was largely the reason war never broke out between the WMD-armed United States and [Soviet Union](http://en.wikipedia.org/wiki/Soviet_Union).

**WMD use, possession and access**

**Nuclear weapons**

[U.S. nuclear warheads](http://en.wikipedia.org/wiki/Nuclear_weapons_and_the_United_States), 1945-2002

*Main article:* [*List of countries with nuclear weapons*](http://en.wikipedia.org/wiki/List_of_countries_with_nuclear_weapons)

The only country to have used a nuclear weapon in war is the [United States](http://en.wikipedia.org/wiki/The_United_States_and_weapons_of_mass_destruction). There are eight countries that have declared they possess nuclear weapons and are known to have tested a nuclear weapon, only five of which are members of the NPT. The eight include: [People's Republic of China](http://en.wikipedia.org/wiki/China_and_weapons_of_mass_destruction); [France](http://en.wikipedia.org/wiki/France_and_weapons_of_mass_destruction); [India](http://en.wikipedia.org/wiki/India_and_weapons_of_mass_destruction); [Pakistan](http://en.wikipedia.org/wiki/Pakistan_and_weapons_of_mass_destruction); [Russia](http://en.wikipedia.org/wiki/Russia_and_weapons_of_mass_destruction); [the United Kingdom](http://en.wikipedia.org/wiki/The_United_Kingdom_and_weapons_of_mass_destruction); the [United States of America](http://en.wikipedia.org/wiki/Nuclear_weapons_and_the_United_States); and [North Korea](http://en.wikipedia.org/wiki/North_Korea). [Israel](http://en.wikipedia.org/wiki/Israel_and_weapons_of_mass_destruction) is considered by most analysts to have nuclear weapons numbering in the low hundreds as well, but maintains an official policy of nuclear ambiguity, neither denying nor confirming its nuclear status. [Iran](http://en.wikipedia.org/wiki/Iran_and_weapons_of_mass_destruction) is suspected by western countries of seeking nuclear weapons, a claim that it denies. [South Africa](http://en.wikipedia.org/wiki/South_Africa_and_weapons_of_mass_destruction) developed a small nuclear arsenal in the 1980s but disassembled them in the early 1990s, making it the only country to have fully given up an independently developed nuclear weapons arsenal. [Belarus](http://en.wikipedia.org/wiki/Belarus), [Kazakhstan](http://en.wikipedia.org/wiki/Kazakhstan), and [Ukraine](http://en.wikipedia.org/wiki/Ukraine) inherited stockpiles of nuclear arms following the break-up of the [Soviet Union](http://en.wikipedia.org/wiki/Soviet_Union), but relinquished them to the Russian Federation. Countries with access to nuclear weapons through [nuclear sharing](http://en.wikipedia.org/wiki/Nuclear_sharing) agreements include: [Belgium](http://en.wikipedia.org/wiki/Belgium), [Germany](http://en.wikipedia.org/wiki/Germany_and_weapons_of_mass_destruction), [Italy](http://en.wikipedia.org/wiki/Italy), the [Netherlands](http://en.wikipedia.org/wiki/Netherlands_and_weapons_of_mass_destruction), and [Turkey](http://en.wikipedia.org/wiki/Turkey). [North Korea](http://en.wikipedia.org/wiki/North_Korea_and_weapons_of_mass_destruction) has claimed to have developed and tested nuclear devices; although outside sources have been unable to unequivocally support the state's claims, North Korea has officially been identified to have nuclear weapons.

**United States politics**

Fear of WMD, or of threats diminished by the possession of WMD, has long been used to catalyze public support for various WMD policies. They include mobilization of pro- and anti-WMD campaigners alike, and generation of popular political support. The term WMD may be used as a powerful buzzword, or to generate a [culture of fear](http://en.wikipedia.org/wiki/Culture_of_fear).. It is also used ambiguously, particularly by not distinguishing among the different types of WMD.

A [television commercial](http://en.wikipedia.org/wiki/Television_commercial) called [*Daisy*](http://en.wikipedia.org/wiki/Daisy_%28television_commercial%29), promoting Democrat [Lyndon Johnson](http://en.wikipedia.org/wiki/Lyndon_Johnson)'s 1964 [presidential candidacy](http://en.wikipedia.org/wiki/U.S._presidential_election%2C_1964), invoked the fear of a nuclear war and was an element in Johnson's subsequent election.

More recently, the threat of potential WMD in Iraq was used by George W. Bush to generate public support for the 2003 invasion of Iraq. Broad reference to Iraqi WMD in general was seen as an element of Bush's arguments. As Paul Wolfowitz explained: "For bureaucratic reasons, we settled on one issue, weapons of mass destruction, because it was the one reason everyone could agree on." To date, however, [Coalition forces](http://en.wikipedia.org/wiki/Multinational_force_in_Iraq) have found mainly degraded artillery shells. On June 21, 2006, United States Senator [Rick Santorum](http://en.wikipedia.org/wiki/Rick_Santorum) claimed that "We have found weapons of mass destruction in Iraq, chemical weapons." According to the Washington Post, he was referring to 500 such shells "that had been buried near the Iranian border, and then long forgotten, by Iraqi troops during their eight-year war with Iran, which ended in 1988." That night, "intelligence officials reaffirmed that the shells were old and were not the suspected weapons of mass destruction sought in Iraq after the 2003 invasion." The shells had been uncovered and reported on in 2004. In 2004 Polish troops found 17 1980s-era rocket warheads, thwarting an attempt by militants to buy them at $5000 each. Some of the rockets contained extremely deteriorated nerve agent. In 2003 an [IAEA](http://en.wikipedia.org/wiki/IAEA) team removed 1.8 tons of [low enriched uranium](http://en.wikipedia.org/wiki/Low_enriched_uranium) and 500 tons of [natural uranium](http://en.wikipedia.org/wiki/Natural_uranium) which had been stored under IAEA seal since 1991.

**Media coverage of WMD**

In 2004 the Center for International and Security Studies at Maryland (CISSM) released a report examining the media’s coverage of WMD issues during three separate periods: [India’s](http://en.wikipedia.org/wiki/India) [nuclear weapons tests](http://en.wikipedia.org/wiki/Nuclear_testing) in May 1998; the US announcement of evidence of a [North Korean nuclear weapons program](http://en.wikipedia.org/wiki/North_Korea_and_weapons_of_mass_destruction) in October 2002; and revelations about [Iran's nuclear program](http://en.wikipedia.org/wiki/Iran%27s_nuclear_program) in May 2003. The CISSM report notes that poor coverage resulted less from political [bias among the media](http://en.wikipedia.org/wiki/Media_bias) than from tired journalistic conventions. The report’s major findings were that:

1. *Most media outlets represented WMD as a monolithic menace, failing to adequately distinguish between weapons programs and actual weapons or to address the real differences among chemical, biological, nuclear, and radiological weapons.*
2. *Most journalists accepted the* [*Bush administration’s*](http://en.wikipedia.org/wiki/Foreign_policy_of_the_George_W._Bush_administration) *formulation of the “*[*War on Terror*](http://en.wikipedia.org/wiki/War_on_Terrorism)*” as a campaign against WMD, in contrast to coverage during the* [*Clinton*](http://en.wikipedia.org/wiki/Bill_Clinton) *era, when many journalists made careful distinctions between acts of* [*terrorism*](http://en.wikipedia.org/wiki/Terrorism) *and the acquisition and use of WMD.*
3. *Many stories stenographically reported the incumbent administration’s perspective on WMD, giving too little critical examination of the way officials framed the events, issues, threats, and policy options.*
4. *Too few stories proffered alternative perspectives to official line, a problem exacerbated by the* [*journalistic*](http://en.wikipedia.org/wiki/Journalism) *prioritizing of breaking-news stories and the “*[*inverted pyramid*](http://en.wikipedia.org/wiki/Inverted_pyramid)*” style of storytelling.*

In a separate study published in 2005, a group of researchers assessed the effects reports and retractions in the media had on people’s [memory](http://en.wikipedia.org/wiki/Memory) regarding the [search for WMD in Iraq](http://en.wikipedia.org/wiki/Iraq_and_weapons_of_mass_destruction) during the 2003 Iraq War. The study focused on populations in two [coalition](http://en.wikipedia.org/wiki/Coalition_of_the_willing) countries ([Australia](http://en.wikipedia.org/wiki/Australia) and USA) and one opposed to the war ([Germany](http://en.wikipedia.org/wiki/Germany)). Results showed that US citizens generally did not correct initial misconceptions regarding WMD, even following disconfirmation; Australian and German citizens were more responsive to retractions. Dependence on the initial source of information led to a substantial minority of Americans exhibiting [false memory](http://en.wikipedia.org/wiki/False_memories) that WMD were indeed discovered, while they were not. This led to three conclusions:

1. *The repetition of tentative news stories, even if they are subsequently disconfirmed, can assist in the creation of false memories in a substantial proportion of people.*
2. *Once information is published, its subsequent correction does not alter people's beliefs unless they are suspicious about the motives underlying the events the news stories are about.*
3. *When people ignore corrections, they do so irrespective of how certain they are that the corrections occurred.*

A poll conducted between June and September of 2003 asked people whether they thought WMD had been discovered in Iraq since the war ended. They were also asked which media sources they relied upon. Those who obtained their news primarily from Fox News were three times as likely to believe that evidence confirming WMD had been discovered in Iraq than those who relied on PBS and NPR for their news, and one third more likely than those who primarily watched CBS.

|  |  |
| --- | --- |
| **Media source** | **Respondents believing evidence of WMD had been found in Iraq since the war ended** |
| [Fox](http://en.wikipedia.org/wiki/Fox_News) | 33% |
| [CBS](http://en.wikipedia.org/wiki/CBS) | 23% |
| [NBC](http://en.wikipedia.org/wiki/NBC) | 20% |
| [CNN](http://en.wikipedia.org/wiki/CNN) | 20% |
| [ABC](http://en.wikipedia.org/wiki/American_Broadcasting_Company) | 19% |
| [Print media](http://en.wikipedia.org/wiki/Print_media) | 17% |
| [PBS](http://en.wikipedia.org/wiki/Public_Broadcasting_Service)-[NPR](http://en.wikipedia.org/wiki/National_Public_Radio) | 11% |

Based on a series of polls taken from June-September 2003.

In 2005 the Washington Post reported that US troops had raided a suspected chemical weapons factory. In 2006 Fox News reported the claims of two Republican lawmakers that WMDs had been found in Iraq, based upon unclassified portions of a report by the [National Ground Intelligence Center](http://en.wikipedia.org/wiki/National_Ground_Intelligence_Center). Quoting from the report Senator [Rick Santorum](http://en.wikipedia.org/wiki/Rick_Santorum) said "Since 2003, coalition forces have recovered approximately 500 weapons munitions which contain degraded mustard or sarin nerve agent". Many news agencies, including Fox News, reported the conclusions of the [CIA](http://en.wikipedia.org/wiki/CIA) that, based upon the investigation of the [Iraq Survey Group](http://en.wikipedia.org/wiki/Iraq_Survey_Group), WMDs have yet to be found in Iraq.

**Public perceptions of WMD**

Awareness and opinions of WMD have varied during the course of their history. Their threat is a source of unease, security and pride to different people. The anti-WMD movement is embodied most in [nuclear disarmament](http://en.wikipedia.org/wiki/Nuclear_disarmament), and led to the formation of the [Campaign for Nuclear Disarmament](http://en.wikipedia.org/wiki/Campaign_for_Nuclear_Disarmament).

In 1998 [University of New Mexico](http://en.wikipedia.org/wiki/University_of_New_Mexico)'s [Institute for Public Policy](http://en.wikipedia.org/w/index.php?title=Institute_for_Public_Policy&action=edit) released their third report on US perceptions - including the general public, politicians and scientists - of nuclear weapons since the breakup of the [Soviet Union](http://en.wikipedia.org/wiki/Soviet_Union). Risks of nuclear conflict (particularly with [China](http://en.wikipedia.org/wiki/China)), proliferation, and terrorism were seen as substantial. While maintenance of a nuclear US arsenal was considered above average in importance, there was widespread support for a reduction in the stockpile, and very little support for developing and testing new nuclear weapons.

Also in 1998, but after the UNM survey was conducted, nuclear weapons became an issue in India's election of March, in relation to political tensions with neighboring [Pakistan](http://en.wikipedia.org/wiki/Pakistan). Prior to the election the [Bharatiya Janata Party](http://en.wikipedia.org/wiki/Bharatiya_Janata_Party) (BJP) announced it would “declare India a nuclear weapon state” after coming to power. BJP won the elections, and on May 14, three days after India tested nuclear weapons for the second time, a public opinion poll reported that a majority of Indians favored the country’s nuclear build-up.

On April 15, 2004, the [Program on International Policy Attitudes](http://en.wikipedia.org/wiki/Program_on_International_Policy_Attitudes) (PIPA) reported that US citizens showed high levels of concern regarding WMD, and that preventing the [spread of nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_proliferation) should be "a very important US foreign policy goal", accomplished through [multilateral](http://en.wikipedia.org/wiki/Multilateral) arms control rather than the use of military threats. A majority also believed the US should be more forthcoming with its biological research and its [Nuclear Non-Proliferation Treaty](http://en.wikipedia.org/wiki/Nuclear_Non-Proliferation_Treaty) commitment of nuclear arms reduction, and incorrectly thought the US was a party to various non-proliferation treaties.

A Russian opinion poll conducted on August 5, 2005 indicated half the population believes new nuclear powers (including [North Korea](http://en.wikipedia.org/wiki/North_Korea)) have the right to possess nuclear weapons. 39% believes the Russian stockpile should be reduced, though not fully eliminated.

**WMDs in popular culture**

Weapons of mass destruction and their related impacts have been a mainstay of [popular culture](http://en.wikipedia.org/wiki/Popular_culture) since the beginning of the [Cold War](http://en.wikipedia.org/wiki/Cold_War), as both political commentary and humorous outlet.

Nuclear weapons have been a central theme of movies since [*The Day the Earth Stood Still*](http://en.wikipedia.org/wiki/The_Day_the_Earth_Stood_Still_%281951_film%29) (1951); two of the most famous are [*Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb*](http://en.wikipedia.org/wiki/Dr._Strangelove_or%3A_How_I_Learned_to_Stop_Worrying_and_Love_the_Bomb) (1964) and [*Fail-Safe*](http://en.wikipedia.org/wiki/Fail-Safe_%281964_film%29) (1964). Biological weapons have also featured, as in [*Twelve Monkeys*](http://en.wikipedia.org/wiki/Twelve_Monkeys) (1995). Several early [James Bond](http://en.wikipedia.org/wiki/James_Bond) films involve a madman, most notably [Ernst Stavro Blofeld](http://en.wikipedia.org/wiki/Ernst_Stavro_Blofeld) of the fictional terrorist organization [S.P.E.C.T.R.E.](http://en.wikipedia.org/wiki/S.P.E.C.T.R.E.), who intends to use either nuclear or biological weapons in the quest for [world domination](http://en.wikipedia.org/wiki/World_domination). This has been parodied in the [Austin Powers series](http://en.wikipedia.org/wiki/Austin_Powers_series) with [Dr. Evil](http://en.wikipedia.org/wiki/Dr._Evil).

WMDs are a popular theme in [science fiction](http://en.wikipedia.org/wiki/Science_fiction). The seminal novel [*Dune*](http://en.wikipedia.org/wiki/Dune_%28novel%29) discusses atomic weapons, and its sequel [*Dune Messiah*](http://en.wikipedia.org/wiki/Dune_Messiah) employs one called a [Stone Burner](http://en.wikipedia.org/wiki/Stone_Burner). In the [*Star Wars*](http://en.wikipedia.org/wiki/Star_Wars) universe, the [Death Star](http://en.wikipedia.org/wiki/Death_Star) is a moveable, multi-use WMD (meaning that it, unlike most WMD missiles, can be used thousands of times.) In the [*Babylon 5*](http://en.wikipedia.org/wiki/Babylon_5) universe, WMDs have been used a number of times, most directly by the Earth Alliance (the [Earth-Minbari War](http://en.wikipedia.org/wiki/Earth-Minbari_War) uses nuclear weapons), the Army of Light (the [Shadow War](http://en.wikipedia.org/wiki/Shadow_War), also nuclear), the Centauri (Narn-Centauri War, planetary bombardment with asteroids by [mass drivers](http://en.wikipedia.org/wiki/Mass_driver)), as well as on their own planet on the Isle of Selini to rid themselves of the Shadows (nuclear), and the [Drakh](http://en.wikipedia.org/wiki/Drakh) (biological warfare against Earth). During Season 4, Episode 1 (09/03/1997 Stardate: 51003.7) of [*Star Trek: Voyager*](http://en.wikipedia.org/wiki/Star_Trek%3A_Voyager), [Captain Janeway](http://en.wikipedia.org/wiki/Kathryn_Janeway) ([Kate Mulgrew](http://en.wikipedia.org/wiki/Kate_Mulgrew)) consults with Borg representative Seven of Nine ([Jeri Ryan](http://en.wikipedia.org/wiki/Jeri_Ryan)) on how to destroy [Species 8472](http://en.wikipedia.org/wiki/Species_8472). Janeway calls Seven of Nine's "multikinetic neutronic mine. Five million isotone yield" a "Weapon of Mass Destruction." Following up on a statement from [Tuvok](http://en.wikipedia.org/wiki/Tuvok) ([Tim Russ](http://en.wikipedia.org/wiki/Tim_Russ)) that it would affect the entire [Solar System](http://en.wikipedia.org/wiki/Solar_System) destroying innocent worlds, Seven of Nine replies, "It would be efficient."

In the context of the lead-up to the invasion of Iraq under the guise of [Saddam Hussein](http://en.wikipedia.org/wiki/Saddam_Hussein)'s alleged WMDs, the phrase became ubiquitous. A parody based on [Internet Explorer](http://en.wikipedia.org/wiki/Internet_Explorer)'s "[404 Not Found](http://en.wikipedia.org/wiki/404_error)" message was created, poking fun at the state of international affairs, and for a time was the [#1 hit](http://en.wikipedia.org/wiki/Google_bomb) for the [Google](http://en.wikipedia.org/wiki/Google) search "weapons of mass destruction". Similarly, at the annual [Radio and Television Correspondents Dinner](http://en.wikipedia.org/wiki/Radio_and_Television_Correspondents_Dinner), February 24, 2004, [George W. Bush](http://en.wikipedia.org/wiki/George_W._Bush) joked about being unable to find WMD in Iraq, saying "Those weapons of mass destruction must be somewhere", while showing images of himself searching the [White House](http://en.wikipedia.org/wiki/White_House) for something. In 2003 an [easyJet](http://en.wikipedia.org/wiki/EasyJet) advertising campaign attracted controversy with a billboard ad featuring a woman's breasts with the phrase "discover weapons of mass distraction".

[Sue Townsend](http://en.wikipedia.org/wiki/Sue_Townsend) continued [her best-selling series](http://en.wikipedia.org/wiki/Adrian_Mole) of comic-political novels with the 2004 [*Adrian Mole and the Weapons of Mass Destruction*](http://en.wikipedia.org/wiki/Adrian_Mole_and_the_Weapons_of_Mass_Destruction). The eponymous hero trusts Tony Blair implicitly, and writes to him asking for proof of the WMDs' existence, so he can get a refund from the travel agency where he had deposited some money for a holiday in [Cyprus](http://en.wikipedia.org/wiki/Cyprus), since this island is now apparently no longer safe to travel to.

The 2005 series of [*Doctor Who*](http://en.wikipedia.org/wiki/Doctor_Who) contained a double episode about an [alien invasion](http://en.wikipedia.org/wiki/Alien_invasion) in London. In one scene, when discussing whether an attack on the aliens' space craft was warranted, politicians claimed it was necessary because the aliens had "massive weapons of destruction" which could be deployed "within forty-five seconds" — a reference to Prime Minister [Tony Blair](http://en.wikipedia.org/wiki/Tony_Blair)'s claim in the lead-up to the [Iraq War](http://en.wikipedia.org/wiki/Iraq_War) that [Saddam Hussein](http://en.wikipedia.org/wiki/Saddam_Hussein) had WMDs could be deployed within [45 minutes](http://en.wikipedia.org/wiki/45_minutes). In [*The Simpsons*](http://en.wikipedia.org/wiki/The_Simpsons) "[Treehouse of Horror XVII](http://en.wikipedia.org/wiki/Treehouse_of_Horror_XVII)", aliens Kang and Kodos, spoofing the Iraq War, claim that they had to invade, as Earth was working on "Weapons of Mass Disintegration." In the episode (["Rekognize"](http://en.wikipedia.org/wiki/List_of_Da_Ali_G_Show_%28US%29_episodes)) of [Da Ali G Show](http://en.wikipedia.org/wiki/Da_Ali_G_Show), Ali mistakenly refers to WMDs as "[BLTs](http://en.wikipedia.org/wiki/BLT)" (an acronym for the popular American sandwich made of bacon, lettuce, and tomato), going so far as to ask if there was [mustard gas](http://en.wikipedia.org/wiki/Mustard_gas) in the BLTs.

In 2005, the [Paranoia RPG](http://en.wikipedia.org/wiki/Paranoia_%28game%29) published a collection of new Straight-style missions under the title "WMD". Each mission revolved around a [plot device](http://en.wikipedia.org/wiki/Plot_device) with the initials WMD. At least one of the missions involved an actual device that might have been a WMD; but, in general they simply focused on situations rife with a sense of stress, uncertainty and fear. The [hit TV show 24](http://en.wikipedia.org/wiki/24_%28TV_series%29) typically features a different weapon of mass destruction in each season: the second, fourth and sixth seasons feature nuclear weapons, the third features a weaponized virus, and the fifth, [VX nerve gas](http://en.wikipedia.org/wiki/VX_nerve_gas), a chemical weapon of mass destruction. In the [*Nextwave*](http://en.wikipedia.org/wiki/Nextwave) comic book the [Beyond Corporation©](http://en.wikipedia.org/wiki/Beyond_Corporation%C2%A9) is testing out "Unusual Weapons of Mass Destruction" within the US, starting with a weapon called [Fin Fang Foom](http://en.wikipedia.org/wiki/Fin_Fang_Foom).

[*Weapons of Mass Destruction*](http://en.wikipedia.org/wiki/Weapons_of_Mass_Destruction_%28album%29) is the title of an album released by the [rapper](http://en.wikipedia.org/wiki/Rapper) [Xzibit](http://en.wikipedia.org/wiki/Xzibit) in 2004, who also called a car featured on [*Pimp My Ride*](http://en.wikipedia.org/wiki/Pimp_My_Ride) a WMD. [Faithless](http://en.wikipedia.org/wiki/Faithless) released the album [*No Roots*](http://en.wikipedia.org/wiki/No_Roots) in 2004 which contained the single "Mass Destruction", whose lyrics describe negative traits such as fear, racism, greed and inaction as "weapons of mass destruction".

However, the mocking of the term dates back well before the Iraq War, with [Hugh Cook](http://en.wikipedia.org/wiki/Hugh_Cook_%28science_fiction_author%29)'s 1992 fantasy novel *The Witchlord and the Weaponmaster* satirically mentioned that the [avalanche](http://en.wikipedia.org/wiki/Avalanche) is a terrible weapon of mass destruction, outlawed by civilized countries in the conduct of war.

**Common hazard symbols**

*See main article:* [*Hazard symbol*](http://en.wikipedia.org/wiki/Hazard_symbol)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Symbol** | **Unicode** | **Image** |
| [Toxic](http://en.wikipedia.org/wiki/Skull_and_crossbones) symbol | ☠ | U+2620 |  |
| [Radioactive](http://en.wikipedia.org/wiki/Radioactivity) symbol | ☢ | U+2622 |  |
| [Biohazard](http://en.wikipedia.org/wiki/Biological_hazard) symbol | ☣ | U+2623 |  |
| [Chemical warfare](http://en.wikipedia.org/wiki/Chemical_warfare) symbol | N/A | N/A |  |

**Radioactive weaponry/hazard symbol**

The international radioactivity symbol (also known as [trefoil](http://en.wikipedia.org/wiki/Trefoil)) first appeared in 1946, at the [University of California, Berkeley](http://en.wikipedia.org/wiki/University_of_California%2C_Berkeley) Radiation Laboratory. At the time, it was rendered as [magenta](http://en.wikipedia.org/wiki/Magenta), and was set on a [blue](http://en.wikipedia.org/wiki/Blue) background. It is drawn with a central circle of radius *R*, the blades having an internal radius of 1.5*R* and an external radius of 5*R*, and separated from each other by 60°.

**Biological weaponry/hazard symbol**

Developed by Dow Chemical company in the 1960s for their containment products.

According to Charles Baldwin, an environmental-health engineer who contributed to its development:

|  |  |  |
| --- | --- | --- |
| **“** | We wanted something that was memorable but meaningless, so we could educate people as to what it means. | **”** |

(how to draw it)

The symbol used today as the biohazard sign is in fact a Japanese family crest, or [*mon*](http://en.wikipedia.org/wiki/Mon_%28crest%29). It can be found on page 195 of the book "Japanese Design Motifs: 4,260 Illustrations of Japanese Crests" translated by Fumie Adachi and published by Dover.