Nuclear close calls

3 languages

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(Redirected from List of nuclear close calls)

A **nuclear close call** is an incident that might have led to at least one nuclear explosion, but did not. They can be split into intentional use and unintentional use close calls.

Intentional use close calls may occur during increased military tensions involving one or more nuclear states. They may be a threat made by the state, or an attack upon the state. They may also come from nuclear terrorism.

Unintentional use close calls may occur due to equipment failure. Common examples are strategic bombers accidentally dropping or crashing with nuclear bombs, or early warning systems mistaking phenomena such as weather events or non-nuclear rocket launches for an ICBM first strike and therefore recommending a second strike.

Though exact details on many nuclear close calls are hard to come by, the analysis of particular cases has highlighted the importance of a variety of factors in preventing accidents. At an international level, this includes the importance of context and outside mediation; at the national level, effectiveness in government communications, and involvement of key decision-makers; and, at the individual level, the decisive role of individuals in following intuition and prudent decision-making, often in violation of protocol.[1]

A possible example of an accident that did result in a nuclear explosion is the 2019 Nyonoksa radiation accident in Russia.

Any nuclear exchange carries the possibility of rapid climate change, threatening global food production: nuclear famine.[2]

Despite reduction of nuclear arms and lower tensions after the end of the Cold War, estimated nuclear warhead stockpiles total roughly 15,000 worldwide, with the United States and Russia holding 90% of the

Nuclear weapons

Background

Nuclear explosion · History · Warfare · Design · Testing · Delivery · Yield · Effects · Workers · Ethics · Arsenals · Target selection · Arms race · Blackmail · Deterrence · Espionage · No first use · Proliferation · Disarmament · Sharing · Strategy · Terrorism · Umbrella · Opposition · Winter · Pax Atomica

Nuclear-armed states

NPT recognized

United States · Russia · United Kingdom · France · China · *Others*

India · Israel (undeclared) · Pakistan · North Korea

Former

South Africa · Belarus · Kazakhstan · Ukraine

v · T · E

Intentional use close calls [edit]

Intentional close calls may occur during increased military tensions involving one or more [nuclear states](). They may be a threat made by the state, or an attack upon the state. They may also come from [nuclear terrorism]().

1950–1953: Korean War [edit]

See also: [Korean War § U.S. threat of atomic warfare,]() and [Operation Hudson Harbor]()

During the [Korean War](), the US considered nuclear attacks on [North Korea]() and [Manchuria](), in response to involvement from the [People's Volunteer Army]() from China. [Mark 4 nuclear bombs](), lacking their [fissile pits](), were deployed to Guam and Okinawa. [Boeing B-29 Superfortresses]() were stationed in [Kadena Air Base](), Okinawa, and flew practice bombing runs with dummy nuclear or conventional bombs against North Korean targets.

The US also considered strikes on [Soviet Air Force]() bases in the [Russian Far East]().[4] The [Artem air base]() was the most immediate.

1954: First Indochina War [edit]

Main article: [Operation Vulture]()

During the [Battle of Dien Bien Phu](), at the request of the French, the US considered [tactical nuclear weapons]() use against the [Viet Minh](). US strategic bombers stationed in the Philippines or Okinawa, as well as carrier aircraft in the [Seventh Fleet](), were considered for a strike using three tactical nuclear bombs, possibly [Mark 7s]().

1956: Suez Crisis [edit]

See also: [Suez Crisis]()

During the [Suez Crisis](), the [North American Aerospace Defense Command]() (NORAD) received a number of simultaneous reports, including unidentified aircraft over [Turkey](), Soviet [MiG-15]() fighters over [Syria](), a downed British [Canberra medium bomber](), and unexpected maneuvers by the Soviet [Black Sea Fleet]() through the [Dardanelles]() that appeared to signal a Soviet offensive. Considering previous Soviet threats to use conventional missiles against [France]() and the [United Kingdom](), U.S. forces believed these events could trigger a [NATO]() nuclear strike against the Soviet Union. In fact, all reports of Soviet action turned out to be erroneous, misinterpreted, or exaggerated. The perceived threat was due to a coincidental combination of events, including a wedge of swans over Turkey, a fighter escort for [Syrian President Shukri al-Quwatli]() returning from [Moscow](), a British bomber brought down by mechanical issues, and scheduled exercises of the Soviet fleet.[5]

8: Second Taiwan Strait Crisis [edit]

U.S. Secretary of State Christian Herter characterized the Second Taiwan Strait Crisis as "the first serious nuclear crisis".[6] In this conflict, the PRC shelled the islands of Kinmen (Quemoy) and the Matsu Islands along the east coast of mainland China (in the Taiwan Strait) in an attempt to probe the extent of the United States military defense of Taiwan's sovereign territory. This was an ultimately failed preemptive strike prior to an attempted invasion of Taiwan, where the Republic of China's (ROC) military forces and political apparatuses, known as the Kuomintang (KMT), had been exiled since the end of the Chinese Civil War in 1949. A naval battle also took place around Dongding Island when the ROC Navy repelled an attempted amphibious landing by the PRC Navy.[7][8][9][10]

1962: Cuban Missile Crisis [edit]

Main article: Cuban Missile Crisis

During the Cuban Missile Crisis, United States military planners expected that sabotage operations might precede any nuclear first strike by the Soviet Union. Around midnight on 25 October 1962, a guard at the Duluth Sector Direction Center saw a figure climbing the security fence. He shot at it and activated the sabotage alarm, which automatically set off similar alarms at other bases in the region. At Volk Field in Wisconsin, a faulty alarm system caused the klaxon to sound instead, which ordered Air Defense Command (ADC) nuclear-armed F-106A interceptors into the air. The pilots had been told there would be no practice alert drills and, according to political scientist Scott D. Sagan, "fully believed that a nuclear war was starting".[11] Before the planes were able to take off, the base commander contacted Duluth and learned of the error. An officer in the command center drove his car onto the runway, flashing his lights and signaling to the aircraft to stop. The intruder was discovered to be a bear.[11][12]

Sagan writes that the incident raised the dangerous possibility of an ADC interceptor accidentally shooting down a Strategic Air Command (SAC) bomber.[11] Interceptor crews had not been given full information by SAC of plans to move bombers to dispersal bases (such as Volk Field) or the classified routes flown by bombers on continuous alert as part of Operation Chrome Dome. Declassified ADC documents later revealed that "the incident led to changes in the alert Klaxon system [...] to prevent a recurrence".[11]

At the height of the Cuban Missile Crisis, Soviet patrol submarine B-59 almost launched a nuclear torpedo while under harassment by American naval forces. One of several vessels surrounded by American destroyers near Cuba, B-59 dove to avoid detection and was unable to communicate with Moscow for a number of days.[13] USS Beale began dropping practice depth charges to signal B-59 to surface; however, the captain of the Soviet submarine and its zampolit (political officer) took these to be real depth charges.[14] With low batteries affecting the submarine's life support systems and unable to make contact with Moscow, the commander of B-59 feared that war had already begun and ordered the use of a 10-kiloton nuclear torpedo against the American fleet. The zampolit agreed, but the chief of staff of the flotilla (second in command of the flotilla) Vasily Arkhipov refused permission to launch. He convinced the captain to calm down, surface, and make contact with Moscow for new orders.[15][16]

On the same day, an American [U-2 spy plane](#) was shot down over Cuba, and another U-2 flown by [United States Air Force](#) Captain Charles Maultsby from [Eielson Air Force Base](#), [Alaska](#), strayed 300 miles (480 km) into Soviet airspace. Despite orders to avoid Soviet airspace by at least 100 miles (160 km), a navigational error caused by the [aurora borealis](#) took the U-2 over the [Chukotka Peninsula](#), causing Soviet MiG interceptors to scramble and pursue the aircraft.[5][17][18] American [F-102A](#) interceptors armed with [GAR-11 Falcon](#) nuclear [air-to-air missiles](#) (each with a 0.25 kiloton yield) were then scrambled to escort the U-2 into friendly airspace.[19] Individual pilots were capable of arming and launching their missiles. The incident remained secret for many years.[18]

1969: DPRK shootdown of US EWAC aircraft [edit]

> Main article: *[1969 EC-121 shootdown incident](#)*

A United States [Lockheed EC-121 Warning Star](#) early warning aircraft [was shot down](#) by a [Democratic People's Republic of Korea](#) (DPRK, *i.e.* North Korea) [MiG-21](#), killing all 31 servicemen aboard. [F-4 Phantom](#) fighter-bomber jets at [Kunsan Air Base](#) were ordered to load [B61 nuclear bombs](#) and began preparations for a nuclear strike against the DPRK.[20] The attack was to include the airfield from which the North Koreans had attacked the US aircraft.[21] After a few hours, the order to stand down was given and the jets never took off. Reportedly, President [Richard Nixon](#) was drunk when he gave the order for a nuclear attack against the DPRK.[22] The order to stand down was given on the advice of [Secretary of State Henry Kissinger](#).

1969: Sino-Soviet conflict [edit]

> Main articles: *[Sino-Soviet border conflict](#)* and *[Sino-Soviet split § Planned Soviet nuclear strike on China](#)*

In 1969, following the border conflict [Battle of Zhenbao Island](#) in March, the USSR [considered a massive nuclear attack on China](#), targeting cities and nuclear facilities. It made military activity in the [Russian Far East](#), and informed its allies and the United States of this potential attack. The Chinese government and archives were evacuated from Beijing while the [People's Liberation Army](#) scattered from its bases. The crisis abated when US Secretary of State Henry Kissinger informed the Soviet Union that an attack on China would be met by a US nuclear attack on 130 Soviet cities.[23][24][25] According to the [U.S. Department of State](#), one of the two main "after-the-fact explanations" for the *Joint Chiefs of Staff Readiness Test* conducted by the U.S military in October 1969 was to deter a possible Soviet nuclear strike against the People's Republic of China.[26][27]

1973: Yom Kippur War [edit]

> Main article: *[Yom Kippur War](#)*

During the Yom Kippur War, Israeli officials panicked that the Arab invasion force would overrun Israel after the [Syrian Army](#) nearly achieved a breakout in the [Golan Heights](#), and the [U.S. government](#) rebuffed Israel's request for an emergency [airlift](#). According to a former [CIA](#) official, Defense Minister [Moshe Dayan](#) requested and received authorization from Israeli Prime Minister [Golda Meir](#) to arm 13 [Jericho missiles](#) and 8 [F-4 Phantom II](#) fighter jets with nuclear warheads. The missile launchers were located at [Sdot Micha](#)

Airbase, while the fighter jets were placed on 24-hour notice at Tel Nof Airbase. The missiles were said to be aimed at the Arab military headquarters in Cairo and Damascus.[5]

The United States discovered Israel's nuclear deployment after a Lockheed SR-71 Blackbird reconnaissance aircraft spotted the missiles, and it began an airlift the same day. After the U.N. Security Council imposed a ceasefire, conflict resumed when the Israel Defense Force (IDF) moved to encircle the Egyptian Third Army. According to former U.S. State Department officials, the leader of the USSR Leonid Brezhnev threatened to deploy the Soviet Airborne Forces against Israeli forces, and the U.S. Armed Forces were placed at DEFCON 3. Israel also redeployed its nuclear weapons. While DEFCON 3 was still in effect, mechanics repairing the alarm system at Kincheloe Air Force Base in Michigan accidentally activated it and nearly scrambled the B-52 bombers at the base before the duty officer declared a false alarm.[5] The crisis finally ended when Prime Minister Meir halted all military action.[28] Declassified Israeli documents have not confirmed these allegations directly, but have confirmed that Israel was willing to use "drastic means" to win the war.[29]

1983: Able Archer 83 NATO exercise [edit]

Main article: Able Archer 83

Able Archer 83 was a command post exercise carried out by NATO military forces and political leaders between 7 and 11 November 1983.[30] The exercise simulated a Soviet conventional attack on European NATO forces 3 days before the start of the exercise (D-3), transitioning to a large scale chemical war (D-1) and on day 1 (D+1) of the exercise, NATO forces sought political guidance on the use of nuclear weapons to stem the Soviet advance which was approved by political leaders. NATO then began simulating preparations for a transition to nuclear war.[31]

These simulations included 170 radio-silent flights to air lift 19,000 US troops to Europe, regularly shifting military commands to avoid nuclear attack, the use of new nuclear weapon release procedures, the use of nuclear Command, Control, and Communications (C3) networks for passing nuclear orders, the moving of NATO forces in Europe through each of the alert phases from DEFCON 5 to DEFCON 1, and the participation of political leaders like Margaret Thatcher, Helmut Kohl and Ronald Reagan.[32]

The issue was worsened by leaders referring to B-52 sorties as "nuclear strikes",[32] by the increased use of encrypted diplomatic channels between the US and UK,[33] and by the nuclear attack false alarm in September.

In response, Soviet nuclear capable aircraft were fueled and armed ready to launch on the runway, and ICBMs were brought up to alert. Soviet leaders believed the exercise was a ruse to cover NATO preparations for a nuclear first strike and frantically sent a telegram to its residencies seeking information on NATO preparations for an attack. The exercise closely aligned with Soviet timeline estimations that a NATO first strike would take 7 to 10 days to execute from the political decision being made.[34][35]

Soviet forces stood down after 11 November when the exercise ended. NATO was unaware of the complete Soviet response until British intelligence asset Oleg Gordievsky passed on the information.[36]

1: Iraq-Israel tensions during Gulf War [edit]

Main article: Gulf War

During the Persian Gulf War, Ba'athist Iraq launched Scud missiles at Saudi Arabia and Israel and possessed a large cache of weapons of mass destruction in the form of chemical weapons. This, along with Saddam Hussein's previous threat to "burn half of Israel" with chemical weapons, led to fears that Saddam Hussein would order the use of the chemical weapons against the U.S.-led coalition or against Israel *(see: Iraq–Israel relations § Until the 2003 Iraq War)*.[37][38] Israeli Prime Minister Yitzhak Shamir and Israeli Air Force Commander-in-Chief Avihu Ben-Nun both warned that an Iraqi chemical attack would trigger "massive retaliation", implying that Israel would retaliate with nuclear weapons. At the same time U.S. Secretary of Defense Dick Cheney, General Norman Schwarzkopf Jr., and British Prime Minister Margaret Thatcher all emphasized that the use of WMD against Coalition forces would lead to a nuclear attack on Iraq.[38]

U.S. Secretary of State James Baker directly warned his counterpart Tariq Aziz that the United States had "the means to exact vengeance" in the event of an Iraqi resort to WMD.[39] After the war, the Defense Intelligence Agency credited these threats with deterring Iraq from launching chemical attacks on Coalition forces.[38] Nevertheless, Saddam Hussein did have a contingency plan to launch WMD-armed warheads against Tel Aviv in the event that he became cut off from the Iraqi Armed Forces leadership or if the Iraqi government was about to collapse, which almost certainly would have triggered a retaliatory nuclear response from Israel. Saddam ultimately never deemed this option necessary because he never felt as if his government was about to collapse.[40]

2017–2018: North Korea crisis [edit]

Main article: 2017–2018 North Korea crisis

Between 2017 and 2018, the United States and North Korea, most particularly U.S. President Donald Trump and North Korean Supreme Leader Kim Jong-un, exchanged threats that have been described as on the brink of nuclear war. In August 2017, Trump warned that North Korea would be met with "fire and fury, the likes of which the world has never seen".[41] During his speech in 2017 at the United Nations General Assembly, he warned that if the United States were forced to defend itself, they would have no choice but to "totally destroy North Korea".[42] North Korea, in response, has referred to Trump as a "dotard", stated that he will "pay dearly", and accused the US of "declaring war".[43][44][45] In January of 2018, Trump also tweeted that his country has a "bigger nuclear button" than North Korea.[46]

In January 2018, it was reported that Trump withdrew Victor Cha as a pick to be U.S. Ambassador to South Korea over his opposition to launch a limited strike at North Korea. The withdrawal sparked major concerns for North Korean experts that the US was seriously considering war with North Korea.[47]

The crisis has been described as the "Cuban Missile Crisis in slow motion".[48] In Van Jackson's book *On the Brink: Trump, Kim, and the Threat of Nuclear War*, he stated that the United States was close as ever to World War III between 2017 and early 2018.[49] Trump also reportedly considered evacuating Americans

from [South Korea](#) despite warnings that such a move could lead to war.[50][51] Reports also emerged in 2023 Trump was considering the use of nuclear weapons against North Korea in 2017.[52]

2019 India-Pakistan conflict [edit]

Main article: [2019 India–Pakistan border skirmishes](#)

In 2023, [Mike Pompeo](#), who served as [United States Secretary of State](#) in 2019, claimed that U.S. diplomacy prevented heightened tensions between India and Pakistan from sparking a nuclear war. According to Pompeo, he was informed by [Sushma Swaraj](#) in February 2019 that the Indian government believed Pakistan was preparing a nuclear attack, and that India was preparing an escalatory response. Pompeo claimed that he and then-national security advisor [John Bolton](#) spoke with then-Pakistani Army Chief [Qamar Javed Bajwa](#) in "the tiny secure communications facility in our hotel", who was under the equivalent impression about Indian nuclear preparations. The situation was de-escalated as U.S. side informed both countries that no nuclear attack preparations were occurring. Neither the Indian Ministry of External Affairs or Pakistani Foreign Office commented on Pompeo's claims.[53][54]

2022-present: Russian invasion of Ukraine [edit]

Main article: [Nuclear risk during the Russian invasion of Ukraine](#)

Russia has threatened the use of nuclear weapons throughout the invasion of Ukraine, characterized as [nuclear blackmail](#).[55][56]

In late 2022, tensions over Russian nuclear use reached a high point. Russian Foreign Minister [Sergey Lavrov](#) implied nuclear weapons could be used to defend [annexed Ukrainian territories](#).[57] Russian officials, including Russian defense minister [Sergei Shoigu](#),[58] publicly and privately accused Ukraine of preparing to use a radioactive [dirty bomb](#) on Ukrainian territory.[59] A tweet by the Russian Ministry of Defence, purportedly showing evidence of a Ukrainian dirty bomb in production, was debunked as a collection of old and unrelated photos.[60]On 24 October, John Kirby stated that there was no evidence Russia was preparing a dirty bomb strike.[61] At Ukraine's request, the [United Nations](#) sent an [IAEA](#) investigation to Ukraine, which found no evidence of a dirty bomb being developed or any other undeclared nuclear activity.[62][63][64] US feared that those allegations by Russia may be a confirmation of it preparing for a nuclear strike on Ukraine, using dirty bomb allegations or a [false flag](#) attack as a pretext.[65] The US, as reported by CNN, has "prepared 'rigorously' for potential Russian nuclear strike in Ukraine". It also engaged US diplomats, as well as asked other countries, namely China and India, to engage diplomatically to persuade Russia to avoid nuclear escalation.[65]

On 25 March 2023, Putin announced plans to install [Russian tactical nuclear weapons in Belarus](#).[66]

On 19 November 2024, Putin signed a [decree](#) allowing Russia to use [nuclear weapons](#) in response to [conventional](#) attacks by a non-nuclear state supported by a [nuclear power](#), lowering the threshold for a nuclear strike in response to a possible conventional attack.[67]

On 21 November 2024, Russia used a conventionally-armed [multiple independently targetable reentry vehicle](#) system, on the [Oreshnik intermediate-range ballistic missile](#) to attack the Ukrainian city of [Dnipro](#), marking their first usage in combat. The MIRV system was developed by multiple nations for nuclear strategic missiles.[68]

On 7 December 2024, Russia and Belarus signed an agreement offering security guarantees to [Belarus](#) including [nuclear security](#) and the possible use of [Russian nuclear weapons](#) to repel aggressions.[69] Two days later Belarusian President Lukashenko confirmed the presence of Russian [nuclear weapons](#) in Belarus, including [Russia](#)'s [Oreshnik](#) missile system.[70]

On 4 May 2025, in an interview to mark his 25 years of power in Russia, Putin remarked that "he hoped that there would be no need to use nuclear weapons" to bring the Russian invasion of Ukraine "to its logical conclusion".[71][72]

Unintentional close calls [edit]

Unintentional use close calls may occur due to equipment failure. Common examples are [strategic bombers](#) accidentally dropping or crashing with nuclear bombs, or [early warning systems](#) mistaking phenomena such as weather events or non-nuclear rocket launches for an [ICBM first strike](#) and therefore recommending a [second strike](#).

1957: US accidental bomb drop in New Mexico [edit]

Main article: [Mark 17 nuclear bomb § 1957 incident](#)

A [B-36](#) accidentally dropped a bomb just south of [Albuquerque](#), [New Mexico](#). Due to safety measures the plutonium core was not mounted to the bomb at the time but rather stored elsewhere in the plane, preventing a nuclear detonation. The conventional explosives created a 7.6 m (25 ft) wide crater on impact.

1958: US accidental bomb drop in Savannah, Georgia [edit]

Main article: [1958 Mars Bluff B-47 nuclear weapon loss incident](#)

A bomb was mistakenly dropped by a [U.S. Air Force Boeing B-47E-LM Stratojet](#) near [Savannah](#), [Georgia](#) when a man in the bomb bay area grabbed the emergency release pin by accident. Similar to the 1957 incident, safety precautions meant that the plutonium was not mounted to the bomb but rather stored elsewhere on the plane at the time.

1960: US false alarm from moonrise [edit]

Radar equipment in [Thule](#), [Greenland](#), mistakenly interpreted a moonrise over [Norway](#) as a large-scale Soviet missile launch. Upon receiving a report of the supposed attack, [NORAD](#) went on high alert. However, doubts about the authenticity of the attack arose due to the presence of Soviet leader [Nikita Khrushchev](#) in [New York City](#) as head of the USSR's [United Nations](#) delegation.[73][74][75]

1: US strategic bomber crash in North Carolina [edit]

See also: 1961 Goldsboro B-52 crash

A B-52 Stratofortress carrying two 3–4-megaton Mark 39 nuclear bombs broke up in mid-air near Goldsboro, North Carolina dropping its nuclear payload in the process.[76] The pilot in command, Walter Scott Tulloch, ordered the crew to eject at 9,000 feet (2,700 m). Five crewmen successfully ejected or bailed out of the aircraft and landed safely, another ejected but did not survive the landing, and two died in the crash.[77]

Information declassified in 2013 showed that "only a single switch prevented the ... bomb from detonating and spreading fire and destruction over a wide area."[78] An expert evaluation written on 22 October 1969 by Parker F. Jones, the supervisor of the nuclear weapons safety department at Sandia National Laboratories, reported that "one simple, dynamo-technology, low voltage switch stood between the United States and a major catastrophe", and that it "seems credible" that a short circuit in the Arm line during a mid-air breakup of the aircraft "could" have resulted in a nuclear explosion.[79]

1961: US strategic bomber crash in California [edit]

Main article: 1961 Yuba City B-52 crash

A B-52 Stratofortress carrying two nuclear weapons experienced a catastrophic decompression, eventually forcing the crew to eject. The crewless plane crashed 15 miles west of Yuba City, California. The bombs did not detonate due to safety features.

1961: US false alarm from communications failure [edit]

Staff at the Strategic Air Command Headquarters (SAC HQ) simultaneously lost contact with NORAD and multiple Ballistic Missile Early Warning System sites. Since these communication lines were designed to be redundant and independent from one another, the communications failure was interpreted as either a very unlikely coincidence or a coordinated attack. SAC HQ prepared the entire ready force for takeoff before already-overhead aircraft confirmed that there did not appear to be an attack. It was later found that the failure of a single relay station in Colorado was the sole cause of the communications problem.[73]

1962: US mistaken order during Cuban Missile Crisis [edit]

Further information: United States nuclear weapons in Japan § Nuclear weapons accidents

According to a technician who served there, a mistaken order was issued by Kadena Air Base in Okinawa to nuclear missile sites in Okinawa to launch all their nuclear missiles. None were launched. A team responsible for four missiles at Bolo Airfield in Yomitan reported that the order's codes were in order, but the local officer in charge did not trust the order, partly because only one of their four missiles was targeted on Russia, and he saw no logic why missiles would be launched against China too, and because readiness was at DEFCON 2, not DEFCON 1.[80] Others serving there at the time have made statements saying they doubt this incident ever happened.[81]

1964: US strategic bomber crash in Maryland   [edit]

Main article: [1964 Savage Mountain B-52 crash](#)

A B-52 carrying nuclear bombs was severely damaged while flying in turbulence over Western [Pennsylvania](#). The plane crashed in [Garrett County, Maryland](#), at [Savage River State Forest](#). Having completed an [Operation Chrome Dome](#) mission, the plane was traveling from [Massachusetts](#) to [Georgia](#) carrying two nuclear bombs. Reports on the condition of the bombs varied, with [Department of Defense](#) (DoD) saying they were "relatively intact" while [Sandia National Laboratories](#) engineers saying they "broke apart" and that it was too risky to hastily move them. Within 2 days the bombs were retrieved and taken to a local airport for transportation to Air Force facilities. The pilot ordered the crew to eject from the plane when it lost control. Three crew members died in the crash or due to exposure in the snowy winter conditions.

1965: US false alarm from blackout computer errors   [edit]

The Command Center of the [Office of Emergency Planning](#) went on full alert after a [massive power outage in the northeastern United States](#). Several nuclear bomb detectors—used to distinguish between regular power outages and power outages caused by a nuclear blast—near major U.S. cities malfunctioned due to circuit errors, creating the illusion of a [nuclear attack](#).[5]

1965: US attack aircraft falling off carrier   [edit]

Main article: [1965 Philippine Sea A-4 incident](#)

During a training exercise in the [Philippine Sea](#), a nuclear armed [Douglas A-4 Skyhawk](#) attack aircraft fell off the side of the aircraft carrier [USS *Ticonderoga*](#). The jet, pilot and weapon were not recovered.

1966: US strategic bomber crash in Spain   [edit]

Main article: [1966 Palomares B-52 crash](#)

A B-52G bomber and [KC-135](#) tanker crashed over the [Mediterranean Sea](#). The bomber was carrying nuclear weapons at the time. While the bombs did not fully detonate, they did contaminate the area with radioactive material.

1966: French false alarm from weather (likely)   [edit]

In the early days of the French [Strategic Air Forces](#), electrical transmissions were disrupted due to a thunderstorm, causing a wartime takeoff order to be displayed. The [French Air Force](#) launched a [Mirage IV](#) with an [AN-11 atomic bomb](#). The crew was called back by radio, but did not respond, as required by procedure. When they reached their refueling zone, they were unable to find the supply plane, forcing them to abort their mission, turn back, and land.[82]

1967: US false alarm from weather   [edit]

A powerful [solar flare](#) accompanied by a [coronal mass ejection](#) interfered with multiple [NORAD](#) radars over the [Northern Hemisphere](#). These radars included three [Ballistic Missile Early Warning Systems (BMEWS)](#) that had been upgraded, and only resumed operation 8 days prior to the flare.[83] This interference was initially interpreted as intentional jamming of the radars by the Soviets, and thus an act of war. A nuclear bomber counter-strike was nearly launched by the United States.[84] The Strategic Air Command had prepared to launch fighters before NORAD alerted them of the solar flare.

1968: US strategic bomber crash in Greenland [edit]

Main article: [1968 Thule Air Base B-52 crash](#)

A fire broke out on a nuclear armed B-52 bomber just off Greenland, and the plane crashed into the sea without causing a detonation.

1979: US false alarm from computer training scenario [edit]

Computer errors at the [NORAD](#) headquarters in [Peterson Air Force Base](#), the [Strategic Air Command](#) command post in [Offutt Air Force Base](#), the [National Military Command Center](#) in the [Pentagon](#), and the [Alternate National Military Command Center](#) in the [Raven Rock Mountain Complex](#) led to alarm and full preparation for a nonexistent large-scale Soviet attack.[5][73] NORAD notified [national security advisor](#) [Zbigniew Brzezinski](#) that the Soviet Union had launched 250 [ballistic missiles](#) with a trajectory for the United States, stating that a decision to retaliate would need to be made by the president within 3 to 7 minutes. NORAD computers then placed the number of incoming missiles at 2,200.[85] Strategic Air Command was notified, and nuclear bombers prepared for takeoff. Within six to seven minutes of the initial response, [PAVE PAWS](#) satellite and radar systems were able to confirm that the attack was a false alarm.[5][6][86]

[Congress](#) quickly learned of the incident because Senator [Charles H. Percy](#) was present at the NORAD headquarters during the panic. A [General Accounting Office](#) investigation found that a training scenario was inadvertently loaded into an operational computer in the [Cheyenne Mountain Complex](#).[5] Commenting on the incident, [U.S. State Department](#) adviser [Marshall Shulman](#) stated that "false alerts of this kind are not a rare occurrence. There is a complacency about handling them that disturbs me."[85] Soviet General Secretary [Leonid Brezhnev](#) composed a letter to U.S. President [Jimmy Carter](#) that the false alarm was "fraught with a tremendous danger" and "I think you will agree with me that there should be no errors in such matters."[87] In the months following the incident there were three more false alarms at NORAD, two of them caused by faulty [computer chips](#).[73] One of them forced the [National Emergency Airborne Command Post](#) to taxi into position at [Andrews Air Force Base](#).[87]

1980: US false alarm from Soviet missile exercise [edit]

A Soviet submarine near the [Kuril Islands](#) launched four missiles as part of a [training exercise](#). American early warning sensors determined one of the four to be aimed towards the United States. In response, the United States convened officials for a threat assessment conference, at which point it was determined to not be a threat and the situation was resolved.[73]

0: Explosion at US missile silo [edit]

Main article: 1980 Damascus Titan missile explosion

An explosion in Arkansas ripped the doors off a silo and launched part of a nuclear missile out of the structure. The warhead landed 30m away, but safety features prevented either a detonation or release of radioactive material. The incident caused one death and 21 injuries, and sparked a congressional inquiry.[88]

1983: Soviet false alarm from weather (likely) [edit]

Main article: 1983 Soviet nuclear false alarm incident

Several weeks after the downing of Korean Air Lines Flight 007 over Soviet airspace, a satellite early-warning system near Moscow reported the launch of one American Minuteman ICBM. Soon after, it reported that five missiles had been launched. Convinced that a real American offensive would involve many more missiles, Lieutenant Colonel Stanislav Petrov of the Air Defense Forces refused to acknowledge the threat as legitimate and continued to convince his superiors that it was a false alarm until this could be confirmed by ground radar.[6][89][90][91][92][93][94][*excessive citations*]

1991: Tornado at US strategic bomber airbase [edit]

Main article: 1991 Andover tornado

On April 26, 1991, a large tornado touched down southwest of the city of Wichita, Kansas, heading towards the city of Andover. As the tornado approached Andover, it struck the McConnell Air Force Base, where it narrowly missed ten lined up Rockwell B-1 Lancers, two of them armed with nuclear warheads.[95][96][97]

1995: Russian false alarm from Norwegian research rocket [edit]

Main article: Norwegian rocket incident

Russian President Boris Yeltsin became the first world leader to activate the Russian nuclear briefcase after Russian radar systems detected the launch of what was later determined to be a Norwegian Black Brant XII research rocket being used to study the northern lights.[98] Russian ballistic missile submarines were put on alert in preparation for a possible retaliatory strike.[99] When it became clear the rocket did not pose a threat to Russia and was not part of a larger attack, the alarm was cancelled. Russia was in fact one of a number of countries earlier informed of the launch; however, the information had not reached the Russian radar operators.[73]

2007: Improper transport of US nuclear weapons [edit]

Main article: 2007 United States Air Force nuclear weapons incident

On 29 August 2007, six nuclear armed AGM-129 ACM cruise missiles were mistakenly loaded onto a United States Air Force (USAF) B-52H heavy bomber at Minot Air Force Base in North Dakota and transported to Barksdale Air Force Base in Louisiana. The nuclear warheads in the missiles were supposed to have been removed before the missiles were taken from their storage bunker. The missiles with the nuclear warheads

were not reported missing and remained mounted to the aircraft at both Minot and Barksdale for 36 hours. During this period, the warheads were not protected by the various mandatory security precautions for nuclear weapons, and the government was not aware of their location. The incident was the first of its kind in 40 years in the United States and was later described by the media as "one of the worst breaches in U.S. nuclear weapons security in decades".[100]

2024: Iranian strikes against Israel   [edit]

Main article: October 2024 Iranian strikes against Israel

During Iran's ballistic missile strikes on Israel on 1 October 2024, the Tel Nof Airbase, thought to store Israel's nuclear weapons, was hit several times, including one strike that caused secondary explosions.[101]

See also   [edit]

- Broken Arrow (nuclear)
- Cold War II
- Doomsday Clock
- Indo-Pakistani wars and conflicts
- Korean conflict
- List of military nuclear accidents
- Mutual assured destruction
- Nuclear and radiation accidents and incidents
- Nuclear blackmail
- Nuclear terrorism
- Nuclear winter
- Sino-Soviet border conflict
- Vulnerability of nuclear plants to attack
- World War III

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