



NWIP FACT SHEET

Accidental Use of Nuclear Weapons

The Dooms-Day Clock



"73% of the most serious US military aircraft accidents in 1994 and 1995 was caused by human error"

"On January 17th 1966 a B-52 bomber carrying nuclear weapons has a midair accident while refuelling and drops 4 nuclear weapons on Palomares, Spain. Although no nuclear explosion occurs, conventional explosions in 2 of the weapons scatter radioactive material over a populated area"

"41% of personnel removed from operational aspects of US nuclear forces between 1975 and 1990 had problems of alcohol and drug abuse and 20% have had psychiatric problems."

One of the biggest concerns regarding nuclear weapons is the risk of accidental launch or unintentional use.

5,000 nuclear warheads remain on hair-trigger alert, meaning that they can be launched on warning within 15 minutes and before the presumed enemy missile has reached its target.

Since the Cold War the US and the Soviet Union has been aware of the risk of unauthorized or accidental launch of nuclear weapons. Both countries have therefore incorporated elaborate accessories in nuclear weapons and their delivery systems, but despite all precautions the risks remain great. Below is listed a number of factors that could lead to the unintentional use of nuclear weapons.

- * False alarms via one of the warning systems due to technical error or misinterpretation of the enemy's actions.
- * Accidental explosions during transport.
- * All existing nuclear arsenals are susceptible to accidental, inadvertent or unauthorized use. This is especially the case in Russia, where weapons, delivery systems and early warning systems have been badly maintained since the Cold War and budget cuts have reduced the training of nuclear commanders.
- * Human errors caused by boredom; drug and alcohol abuse; habit and routine; misinterpretation of data due to problems of mindset; familiarity; isolation; stress and disturbance of circadian rhythms.
- * The fallibility of groups due to a wish to please superiors, group thinking leading to shared illusions of invulnerability and stereotypical views on opponents.
- * Computer errors.

The theories behind nuclear policies build on the expectations that our leaders will rationally, even during a crisis. Unfortunately we are all humans and history has many examples of situations in which major violent incidents have resulted from the irrational actions of apparent rational world leaders. The most prominent example of this is the start of the World War I where a minor incident accelerated into a major global war because lead-



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"In January 1995 a warning related to a US scientific rocket launched from Norway lead to the activation, for the first time in the nuclear era, of the nuclear suitcases carried by the top Russian leaders and initiated an emergency nuclear decision-making conference involving the leaders and their top nuclear advisers. Less than 4 minutes before the deadline for ordering a Russian nuclear response, it was concluded that the launch was not part of a surprise nuclear strike by Western submarines"

"During special NATO Training exercises over western Germany in the 80s, a British Phantom jet pilot followed the same routine he had followed in the more common training missions he had been flying for 8 years. Completely forgetting that this time he was carrying live Sidewinder missiles, he fired one and destroyed a multi-million dollar Royal Air Force Jaguar aircraft."

"When the US forces were on high-alert during the Cuban Missile Crisis, a guard at an airbase saw someone climbing a fence, fired at the intruder he believed to be a saboteur, and set off an alarm linked to other airbases nearby. Due to a flaw in the system, the alarm sent to one base was not the sabotage signal, but the signal for the beginning of nuclear war. At the last minute, the base commander managed to stop the nuclear armed fighter planes rolling down the runway from taking off. What the guard had seen as a saboteur turned out to have been a stray wild bear."

ers misinterpreted the signals sent by each other. In hindsight it is believed that none of the leaders of the time wished for a major war, but they were all carried by events as they evolved. Another notable example is the Cuban Missile Crisis, which was precipitated by rational choices of Soviet leaders and eventually averted by the rational actions of as Soviet and US leadership, but only chance willed history to take that course. Historical accounts of the events during the missile crisis in 1962 show that only minor, but crucial decisions by the leadership of the two super powers prevented a full-scale nuclear war.

The flying time for a missile between the US and Russia is 30 minutes, which leaves 15 minutes to make a decision of whether to use nuclear weapons if one of the countries believe itself under nuclear attack by the other country. 15 minutes to make such a major decision is not much and American and Russian leaders would be under tremendous stress if such a situation ever occurred. It is still believed to be possible though. In South Asia on the other hand the flying time between India and Pakistan is only 6 minutes. That renders it almost impossible to launch a counter attack and even if the possibility exists it will only leave the state leaders with a 2-minute window to make decisions that will be essential for their countries. With so little time for making decisions the chance of mistakes and miscalculations are huge. During the Cold War the level of alert was high at several occasions where it turned out that it was a human or a technical error that had precipitated what was perceived as a nuclear attack. As late as in 1995 Jeltsin was only 4 minutes from authorizing a nuclear attack against the US. Should a similar situation occur in South Asia the attack will be launched given the difference in the timeframe and a full-scale nuclear war will start resulting in millions of casualties.

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