Risk

**Action 5:**

The nuclear-weapon States commit to accelerate concrete progress on the steps leading to nuclear disarmament, contained in the Final Document of the 2000 Review Conference, in a way that promotes international stability, peace and undiminished and increased security. To that end, they are called upon to promptly engage with a view to, inter alia:

1. Consider the legitimate interest of non-nuclear-weapon States in further reducing the operational status of nuclear weapons systems in ways that promote international stability and security;
2. Reduce the risk of accidental use of nuclear weapons;

No public information is available regarding concrete steps that have been taken to reduce the operational status of nuclear weapons or reduce the risk of accidental use of these weapons. In the meantime, case studies and new research continue to highlight the existing risk by discussing examples of past near-misses, accidents, safety and security breaches, and misconduct. Over the past review cycle more states have raised concerns about the deliberate or accidental use of nuclear weapons due to proliferation, modernisation, nuclear doctrines, misconduct, system vulnerabilities, and more, which is closely linked to the increasing amount of information that became available during that time.

**De-alerting**

With regard to reductions of the operational status of nuclear weapons systems, no progress has been recorded since May 2010. According to the latest estimates, the US and Russia have about 1800 strategic nuclear warheads on high alert on both land- and sea-based ballistic missiles, a figure that has not decreased since the 2010 NPT Review Conference. France and the UK keep 80 and 48 of their weapons, respectively, on their missile submarines fully operational. These weapons are on a lower readiness level than the US and Russian weapons. China, as part of its no-first-use policy, is believed not to maintain nuclear weapons on a high level of readiness.

In 2014, as in previous years, France, Russia, the United Kingdom, and United States voted against the UN General Assembly resolution on “Decreasing the operational readiness of nuclear weapon systems” put forward by Chile, Malaysia, New Zealand, Nigeria, and Switzerland. France, UK, and US issued a joint statement explaining that they disagree that the current operational status of nuclear weapons increases the risk of deliberate or accidental use. They argued that further “de-alerting” is not a priority for nuclear disarmament and that their weapons “are subject to the most rigorous command, control and communication systems.” Despite continued opposition from four nuclear-armed states, the de-alerting resolution was adopted by a vote of 166-4-11, underlining a continued increase of support for lower alert levels.

During the 2014 NPT PrepCom, the NPD submitted a working paper on de-alerting, outlining how reducing the alert level of operational readiness "would demonstrate a commitment to reducing the role of nuclear weapons in security and defence doctrines," as well as "be a valuable confidence-building measure and an important step towards nuclear disarmament." During the 2014 NPT PrepCom, the NPD submitted a working paper on de-alerting, outlining how reducing the alert level of operational readiness "would demonstrate a commitment to reducing the role of nuclear weapons in security and defence doctrines," as well as "be a valuable confidence-building measure and an important step towards nuclear disarmament."8

**Misconduct and accidents**

Since the 2010 NPT RevCon, some reports about security and safety breaches within the US nuclear forces appeared, causing concern within the international community about the risk of accidents. ICBM launch officers had violated security rules, allegedly cheated on tests of their knowledge of the launch systems, participated in gambling rackets, and acted in a drunk and disorderly fashion abroad. One missileer has even been convicted of running a violent street gang that arranged for the exchange of money for sex with underage girls, distributed drugs, and gave alcohol to teenagers. As a response to these developments, US Defense Secretary Chuck Hagel ordered a review of US military’s nuclear weapons mission. Officials from both the US Navy and US Air Force have been released from duty in some cases, while the gang leading missileer has received a sentence of 25 years in prison. As the result of the review, which revealed "structure of US nuclear forces is so incoherent that it cannot be properly managed in its current form" explaining the disconnect between top-levels and those below, US Defense Secretary Chuck Hagel, as part of a more extensive overhaul, authorised the air force to appoint a four star general in charge of its nuclear forces.

There have also been several concerning security and safety incidents at nuclear weapons facilities in the US. On 28 July 2012, three peace activists including an 82 year old nun broke into the Y-12 National Security Complex in Tennessee, which has highly enriched uranium facilities and materials. They spray painted verses from the Bible and splashed blood on the walls of one of the buildings and hammered on a guard tower before waiting to be arrested. On 14 February 2014, a chemical reaction in a drum of nuclear waste at the Waste Isolation Pilot Plant in New Mexico caused the drum to rupture, triggering a radioactive explosion.
leak that exposed more than 20 workers to contamination and indefinitely shut down the plant.14

These recent incidents follow decades of near-misses during the Cold War, when fires, explosions, false attack alerts, and accidentally dropped bombs posed extraordinary risk.15

Other nuclear-armed states are not immune from such incidents. In the United Kingdom, a Nuclear Site Safety Justification report published in 2010 revealed 22 safety shortfalls at the Faslane Naval Base in Scotland where the UK’s nuclear-armed submarines are based.16 The shiplift is used to lift 16,000-ton Vanguard ballistic missile submarines out of the water for maintenance with nuclear warheads and ballistic missiles still aboard.

Then in 2012 "it was revealed that UK submarines, many of them nuclear-powered, had experienced over 266 fires in the past 25 years. 243 were small-scale fires dealt with using onboard resources, but 67 of these were on ballistic missile submarines."17

Also in the UK, 44 officers of the Ministry of Defence Police working at the Atomic Weapons Establishment (AWE) in Burghfield are currently subject to a "police misconduct investigation." The investigation involves allegations of officers failing to complete their duties correctly.

For the other NPT nuclear-armed states, very limited information is available on such security or safety breaches. However, the Chatham House report catalogues a number of incidents of near-use of nuclear weapons in the India, Israel, Pakistan, Soviet Union/Russia, UK, and US.18

International affairs can also affect the risk of nuclear weapon use. In September 2014, in the context of the Ukraine crisis, both the Russian Federation and NATO conducted military exercises that have contributed to further heightening of tensions and, as the recent report from Chatham House points out, may "increase the risks of miscalculation, escalation and propensity for considering nuclear response."20

Cyber attacks are also becoming an increasing concern for nuclear security. In March 2013, the Pentagon’s Defense Science Board indicated uncertainty about the resilience of most US nuclear weapon systems against a sophisticated cyber attack.21 General Robert Kehler, head of Strategic Command, told US senators that he did not know whether other countries’ nuclear command and control systems were impervious to a cyber attack that could launch a nuclear-armed missile.22

The chair’s summary from the Mexico conference noted that the risk of nuclear weapons use is growing due to proliferation, vulnerabilities of command and control networks to cyber attacks and human error, potential access to nuclear weapons by non-state actors, and high-alert status of nuclear weapon systems.23

In Vienna, a session was dedicated to "Risk drivers for deliberate or inadvertent nuclear weapons use". Presentations included an overview of historical near-misses, systems analysis of risks, and the potential impact of cyber attacks on nuclear security.24

The chair’s summary of the Vienna conference found that even if the probability is considered low, "given the catastrophic consequences of a nuclear weapon detonation, the risk is unacceptable." It highlighted the same risks as the summary of the Mexico conference and noted that these risks increase over time.

The summary also critiques the doctrine of "nuclear deterrence" as lending gravely to risk, because it necessitates preparing for nuclear war. “Opportunities to reduce risk must be taken now, such as de-alerting and reducing the role of nuclear weapons in security doctrines,” the summary suggests. “Limiting the role of nuclear weapons to deterrence does not remove the possibility of their use. Nor does it address the risks stemming from accidental use. The only assurance against the risk of a nuclear weapon detonation is the total elimination of nuclear weapons.”25

The Austrian government’s pledge at the conclusion of the conference also highlights the increasing nature of the risk of a nuclear weapon explosion, due to proliferation, modernisation, and the role attributed to nuclear weapons in security doctrines. It notes that the risks associated with nuclear weapons raise moral and ethical questions and that they concern all humanity.26

This pledge, and many governmental and civil society statements before it, call for risk reduction through reducing operational status, removing nuclear weapons from deployment and putting them in storage, diminishing their role in military doctrines, rapid reductions of arsenals, and ultimately their total elimination.

### Risk reduction

Non-nuclear weapon states have addressed the issue of risk reduction not only during disarmament meetings at the United Nations,27 but also outside during the second and third conferences on the humanitarian impact of nuclear weapons in Nayarit, Mexico and Vienna, Austria. In Mexico, one working
References:


2. Ibid.


6. NPT/CONF.2015/PC.III/Vp6 entitled: De-alerting, submitted by the members of the Non-Proliferation and Disarmament Initiative (Australia, Canada, Chile, Germany, Japan, Mexico, Nigeria, the Netherlands, the Philippines, Poland, Turkey and the United Arab Emirates) on 14 March 2014.


12. Ibid.


25. See for example the statements delivered to the UNGA First Committee by the De-Alerting Group on 18 October 2013, 17 October 2012, and 13 October 2011. The Group has also delivered statements to the NPT Preparatory Committees, for example on 3 May 2012.


28. For the different presentations please see: http://www.reachingcriticalwill.org/disarmament-fora/hinw/vienna-2014/statements.
