

United Nations conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination

7 June 2017

English only

New York, 27-31 March 2017 and 15 June-7 July 2017

All nuclear weapon states maintain and operate facilities capable of prompt, complete national nuclear disarmament.

Submitted by the Los Alamos Study Group
June 6, 2017

1. As a technical note, all nuclear weapon states maintain and operate facilities capable of prompt, complete national nuclear disarmament. In the cases of the U.S. and Russia, these facilities have proven post-Cold War capacities of thousands of nuclear weapons dismantled per year (while simultaneously producing new, replacement, or upgraded warheads). For all states, current dismantlement capacities exceed historical (and any conceivable prospective) disarmament rates. Only the U.S. and Russia have arsenals in the thousands today; neither of these states would consider complete disarmament until both have drawn down their inventories to much lower levels, building trust and instituting verification mechanisms along the way. For these reasons, the practical aspects of warhead dismantlement need not impede accession of nuclear weapons state to a ban treaty as a fully-disarmed *former* nuclear weapon state. If a state's disarmament commitment is genuine and firm, and there are no external and internal political barriers, its complete disarmament prior to joining a nuclear prohibition Convention will be swift. If there are such barriers, such states should not be in the treaty.¹

¹ "If dismantlement were made a top priority, it is likely that Pantex could again dismantle more than 1,000 nuclear weapons per year. The situation appears to be similar in Russia... Like the United States, it is likely that if Russia made dismantlement a priority, it would have the capability to dismantle more than 1,000 nuclear weapons per year. "Transparent and Irreversible Dismantlement of Nuclear Weapons," Matthew Bunn, Dec 9, 2008, Hoover Institution, http://www.hoover.org/sites/default/files/uploads/documents/9780817949211_ch5.pdf.

These estimates, large as they are, are conservative. Both states are simultaneously producing refurbished and modernized warheads, as well as planning and preparing future production runs. These, not dismantlement, are the dominant activities at the production centers, especially in the U.S. As many have pointed out, these are single-shift rate estimates, which could be effectively doubled or tripled.

"... the Pantex plant in the United States can...dismantle 3,500-4,500 warheads per year." "Breakdown of Breakout: U.S. and Russian Warhead Production Capabilities," Oleg Bukharin, Oct. 1, 2002, Arms Control Association, https://www.armscontrol.org/act/2002_10/bukharinoct02. We are very familiar with the Pantex facility, the inherent dismantlement capacity of which has not changed in decades, and

believe Bukharin's estimate is in the right ballpark.

Russian dismantlement capabilities are also very large relative to any conceivable negotiations. Although by 2003 Russia had closed its two smaller dismantlement-capable facilities (Penza-19 at Zarechny and Arzamas-16 at Sarov), the larger two remain (Sverdlosk-45 at Lesnoy and Zlatoust-36 at Trekhgorny) (Bunn, op. cit.).

Transparency, verification (and of course fissile material disposition if included) are of course enormous practical problems. Almost any state could hide nuclear explosives. Delivery systems could also be hidden, especially in a large country. Fortunately, nuclear possession is highly-scrutinized. These problems are not germane to the present negotiation – *if* nuclear weapon states cannot accede to the Convention. If, on the other hand, the treaty is crafted to include time-bound disarmament commitments by nuclear weapon states parties, highly-problematic technical issues will almost certainly delay disarmament and break these commitments, undermining the Convention later. The Convention would become hostage to the doubtful performance of nuclear contractors and bureaucracies.