THE EVOLUTION OF NUCLEAR ARSENALS

ARSENALS PEAKED AT OVER 70,000 WEAPONS IN 1986
THE PACE OF REDUCTION HAS SLOWED

NPT: Article VI
negotiations in good faith
on effective measures
relating to cessation of
the nuclear arms race
at an early date and to
nuclear disarmament

Arms Control Today, 2020
NUCLEAR ARSENALS AND NUCLEAR WAR
THE EXPECTED IMPACT OF THE US NUCLEAR WAR PLAN IN 1961

+ hundred million deaths in Eastern Europe
+ hundred million deaths in Western Europe
+ hundred million deaths in states near USSR/China

Total expected short-term deaths about 600 million
Does not include US deaths from Soviet counter strike

NUCLEAR ARSENALS TODAY

OVER 90% OF WARHEADS ARE HELD BY RUSSIA AND THE US
LESS THAN 25% OF WARHEADS ARE TREATY ACCOUNTABLE

New START: 1550 accountable deployed strategic warheads and bombs for US and for Russia (until February 2026)
GLOBAL CLIMATE IMPACTS OF NUCLEAR WAR

CONGRESS HAS ASKED NATIONAL ACADEMIES FOR A NEW STUDY ON THE ENVIRONMENTAL EFFECTS OF NUCLEAR WAR

LIMITED NUCLEAR WAR HAS GLOBAL IMPACTS

NUCLEAR WINTER REVISITED WITH MODERN CLIMATE MODELS

Assuming Pakistan and India each use 50 weapons of 15 kt on cities 5 million tons of smoke and soot

Global effects from darkness, cold, and ozone loss could last up to 25 years 2 billion people at risk from famine

Robock & Toon, *Scientific American*, January 2010
ARMS CONTROL TREATIES
THE END OF THE FIRST ARMS CONTROL ERA?

US modernization plan for all delivery systems and warheads adopts New START levels to 2070-2080

US Nuclear Weapons Employment Guidance (2013) proposed – “up to a one-third reduction in deployed nuclear weapons” (to 1000-1100 warheads, smallest reduction so far)

ABM: signed 1972, US withdrawal in 2002
INF: signed 1987, US withdrawal in 2019
CTBT: signed 1996, not ratified by US Senate
FMCT: no negotiations since 1993 UN mandate
UNITED NATIONS TREATY ON
THE PROHIBITION OF NUCLEAR WEAPONS
ENTERED INTO FORCE ON 22 JANUARY 2021

Supported by 122 countries

Countries can not:
Develop, test, produce, manufacture, acquire or possess nuclear weapons
Use or threaten to use nuclear weapons
Allow any stationing of nuclear weapons

Countries must:
remove nuclear weapons from operation and destroy them as soon as possible
eliminate weapon programs and facilities through a verifiable time-bound plan