

Nuclear Proliferation in the 21st Century

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Why Nuclear Weapons?

- Because they are the most destructive devices created by man
- Increased power and prestige
- Useful bargaining chip

How We Got to Where We Are Today...

- The main players in the 20th Century were the US and the Soviet Union
- All other Nuclear Weapons States had at most 1,000 nuclear warheads combined, whereas the US and Russia had tens of thousands of warheads EACH

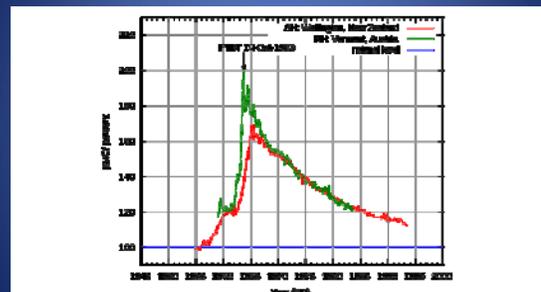
Cuban Missile Crisis

- Was probably the closest the world has ever been to nuclear war
- Late 1962 to early 1963
- Was one of the main reasons for many subsequent treaties

Partial Test Ban Treaty

- Came about from concerns over increased atmospheric radioactivity
- Disallows atmospheric nuclear weapons testing
- Only allowed underground testing
- Signed by the US, USSR, and UK in late 1963

Atmospheric Carbon-14



Nuclear Non-Proliferation Treaty (NNPT)

- Incidents like the Cuban Missile Crisis lead to the ratification of this treaty in 1970
- Probably the most significant treaty pertaining to Nuclear Proliferation
- Says that only 5 countries may have nuclear weapons: the United States, Russia, the UK, China, and France

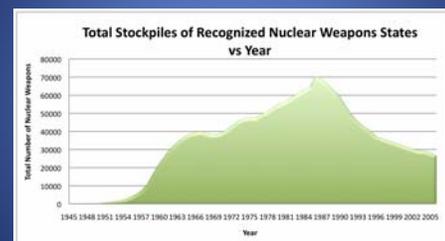
3 “Pillars” of the NNPT

- Non-proliferation
- Disarmament
- Right to peacefully use nuclear technology

Complete Test Ban Treaty

- Disallows ALL nuclear weapons testing
- Still hasn't been ratified by the US, but President Obama has signaled that he wants it ratified

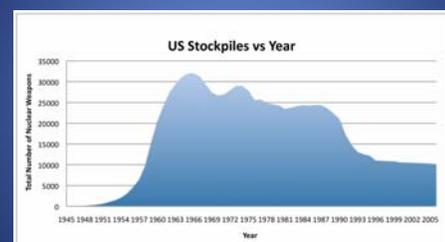
Current Status



United States

- Has been steadily reducing its number of nuclear weapons
- Just last week, President Obama announced that he would significantly limit the scenarios in which Nuclear Weapons would be used to retaliate

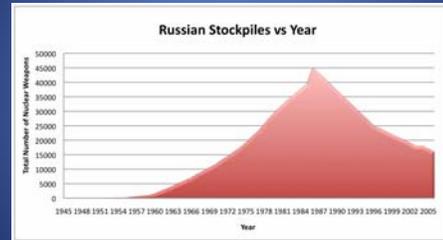
United States Stockpiles



Russia

- Has been steadily reducing its number of nuclear weapons, just like the US
- Both the US and Russia have agreed to reduce their stockpiles to less than 2200 weapons by 2012

Russian Stockpiles



France / UK / China

- All have maintained a steady stockpile of ~100-300 weapons

Israel

- Hasn't signed on to the NNPT
- Is strongly suspected to possess nuclear weapons
- May have 75-400 warheads

Pakistan/India

- Non-signatory to the NNPT
- Has demonstrated that they have nuclear weapons
- Estimated to have ~80 warheads each
- Security Concerns over turmoil in Pakistan

Iran

- Has made moves that indicate they may be attempting to develop nuclear weapons
- Possibility of sanctions against Iran by the UN

North Korea

- Believed to possess some nuclear weapons capabilities
- ~6-8 nuclear weapons
- Has been repeatedly sanctioned by the UN for its actions

Terrorism

- It is highly unlikely that terrorists could obtain a nuclear weapon and successfully detonate it
- A radiological weapon would be much more likely

Future?

- Continued reduction of stockpiles by the US and Russia
- Iran, North Korea