**DAY 145: “The Nuclear Age”**

*USE THIS TIMELINE IN ORDER TO DO THE FOLLOWING*:   
  
**1. Compile a list of countries that have nuclear capabilities today.   
2. Compile a list of key scientific discoveries that relate to nuclear energy. Which of these do you consider the most important and why?   
3. Compile a list of key treaties and reductions. Understand how important these are to world peace and stability.   
4. Write your opinion on two matters related to this topic:**   
  
**A) If you were in President Truman’s shoes in 1945 what would you have done with the three A-bombs America had in its arsenal? Explain your rationale.   
  
B) If you were the president today. What would be your stance regarding nuclear energy and weapons in the United States? Explain your rationale**

***NUCLEAR AGE TIMELINE:***

1898- French physicists Pierre and Marie Curie discover the element radium, which emits radioactive energy   
1911- Ernest Rutherford develops the current model for atomic structure when he discovers positively charged protons and neutral neutrons in a nucleus, surrounded by negatively charged electrons.   
1932- British physicists John Cockcroft and Ernest Walton split an atom for the first time.   
1934- Hungarian physicist Leo Szilard proposes the idea of a nuclear bomb, using a chain reaction following the separation on an atom. He later becomes a fierce opponent of nuclear weapons.   
1942- Enrico Fermi conducts the first successful sustained nuclear reaction at the University of Chicago, and Manhattan Project physicists explore how to harness such a reaction in weapons.   
1945- United States conducts the world’s first nuclear test explosion at Alamogordo, New Mexico, then uses nuclear weapons on the Japanese cities of Hiroshima and Nagasaki. World War II ends soon afterward.   
1946- At the first meeting of the Atomic Energy Commission, the U.S. delegate proposes a plan to internationalize control of atom energy. The Soviet Union delegates reject the plan.   
1949- Soviet Union tests its first nuclear weapon at Semipalatinsk, Kazakhstan.   
1952- United Kingdom conducts its first nuclear test in Western Australia, and the United States explodes the first hydrogen bomb.   
1957- United Nations creates the International Atomic Energy Agency (IAEA) to promote “peaceful” uses of nuclear energy.   
1958- Gerald Holtam designs the now universal peace symbol as the logo for the Campaign for Nuclear Disarmament in Great Britain.    
1960- France joins the nuclear weapons “club” by testing an atomic weapon in Algeria.   
1963- The Limited Test Ban Treaty is signed by the United States, Soviet Union, and Great Britain. It bans nuclear weapons testing in the atmosphere, outer space, and underwater, but not underground.   
1964- China becomes the fifth nation to possess nuclear weapons. U.S. presidential candidate Lyndon B. Johnson releases a campaign video, “Peace Little Girl (Daisy),” which juxtaposes a little girl counting flower petals with the countdown to nuclear explosion.   
1968- The United States, Soviet Union, and the Great Britain sign the Treaty on Non-Proliferation of Nuclear Weapons (NPT), and it goes into effect in 1970.   
1971- Nuclear weapons facility Hanford Nuclear Reservation near Hanford, Washington, is officially decommissioned, leaving behind what would be the nation’s most contaminated radioactive site and result in the nation’s largest cleanup effort.   
1974- India conducts its first nuclear test near its border with Pakistan, while the United States and the Soviet Union ratify the Strategic Arms Limitation Talks (SALT I) and Anti-Ballistic Missile treaties.   
1982- The Strategic Arms Reduction Treaty (START I) is signed by the United States and the Soviet Union, cutting nuclear warheads by 15% in the United States.   
1983- The movie The Day After creates controversy by telling a story of nuclear war in the western United States.   
1984- START II increases the reductions to 50%  
1990- The Radiation Exposure Compensation Act allows for compensation claims from people living near or working in nuclear testing facilities in the United States.  
1995- More than 180 nations meet and agree to indefinitely extend the Nuclear Non-Proliferation Treaty.   
1996- United Nations adopts the Comprehensive Nuclear Test Ban Treaty, which will gain enforcement 180 days following its ratification by 44 designated signatories. It bans all nuclear weapons testing and explosions.   
1998- India tests two atomic bombs and one hydrogen bomb, insisting that Pakistan is a nuclear threat. Pakistan follows suit, implementing five nuclear tests.   
2000- The 2000 Review Conference of the NPT issues the Thirteen Points, or practical steps to complete nuclear disarmament, which include test bans and complete elimination of nuclear weaponry.   
2003- North Korea becomes first nation to withdraw from the NPT.   
2009- U.S. President Barack Obama announces plans to pursue nuclear disarmament.   
2010- The 2010 Review Conference convenes in New York in May and is viewed as critical to consolidating the world nuclear nonproliferation regime.   
2040- Estimated year that the 53 million gallons of radioactive waste left from the Hanford Site’s nuclear weapons production will be stabilized and removed as part of the site cleanup. 