The Atomic Age

The Bomb
- Today there are 7 countries that possess nuclear weapons.
- Some countries are rumored to possess atomic bombs.

Since the first atomic detonation in 1945 there have been over 2000 atomic detonations mostly for testing purposes.

The Red Bomb
- The United States had a strategic advantage after World War Two because of the Atomic Bomb.
- That advantage disappeared on August 29, 1949. The Soviets successfully tested a nuclear weapon.

The Hydrogen Bomb
- November 1, 1952 American successfully tests a Hydrogen Bomb. Created by splitting a Hydrogen atom.
- Hydrogen bombs can be 100 times more powerful than the bombs dropped on Hiroshima and Nagasaki.

Deterrence
- Deterrence - Is the policy of making the military power of the U.S. and its allies so strong that no enemy would dare attack for fear of retaliation.

Not to be out done
- The Soviets successfully test a hydrogen bomb on November 22, 1955.
**Delivery Systems**

- Americans first relied on bombers for the delivery of nuclear weapons.
- The B-52 Bomber was designed with nuclear payloads in mind.

**The ICBM**

- **ICBM – Intercontinental Ballistic Missile**
  - The German V2 Rocket was the first man made object to exit Earth's atmosphere.
  - The Soviets did not have a reliable bomber like the American B-52 so they poured money into a rocket program.
  - The first operational ICBM the Soviets made was declared operational in 1957.

**Sputnik**

- On October 4, 1957 the Soviet Union launched Sputnik 1.
- **Sputnik 1 - The world's first artificial satellite.**
  - The Soviet Sputnik program shocked the Americans into developing their own rocket program.

**The Space Race**

- The launch of Sputnik also propelled the two superpowers into a race for space.
- **The Space Race - An informal competition between the U.S. and U.S.S.R to explore outer space with artificial satellites, to send humans into space, and to land people on the moon.**

**Nuclear Power**

- Atomic Energy had many other uses aside from military bombs.
- Nuclear power was created for the first time on December 20, 1951.
- Four light bulbs were successfully lit.

**Nuclear Navy**

- Nuclear reactors are installed in Navy ships for power.
- Nuclear reactor boats do not require refueling.

Modern Nuclear powered aircraft carriers have a top speed in excess of 30 knots.
The Silent Service

- Nuclear reactors were placed in Submarines.
- This gave submarines the ability to never have to surface. It also gave many submarines a top speed above 30 knots.
- The *USS Nautilus* was the world's first Nuclear powered submarine.

**Boomers**

- The U.S. and U.S.S.R develop submarines that are capable of launching SLBMs (Submarine Launched Ballistic Missiles).

**MIRVs**

- **MIRV** - Multiple Independently Targetable Re-entry Vehicle
- MIRVs make ICBMs capable of carrying multiple nuclear warheads that can be dropped over a large area.

Testing of the LG-118A Peacekeeper/LG-118A re-entry vehicles, all eight fired from only one missile. Each line represents the path of a warhead which, were it live, would detonate with the explosive power of twenty-five Hiroshima-style weapons.