**The Arms Race**

Suicide or Appeasement

USSR exploded its first atomic bomb in 1949

Arms Races - quantitative and qualitative

Countries will resort to technology to offset problems in quantitative

USA exploded the first H-Bomb in 1952

By 1953 the Soviets had the hydrogen bomb

Destructive Capability

* WWII bombs “Blockbusters” = 1 tonne TNT
* Hiroshima bomb = 20,000 tonnes of TNT
* H-Bomb (1952) = 20,000,000 tonnes (20 mega tonnes)

Research into new delivery systems was also underway - rockets - etc

American strategy based on the concept of massive retaliation

* Fit with traditional American all-or-nothing approach to war
* Aimed at reducing the enemies population centres and industrial centres to rubble
* Allowed the politicians to talk about deterrence to all wars
* Based on thee need of nuclear superiority
* Any attack- conventional or nuclear - would be met with the full might of the SAC
* Make the air force the most important
* When technology changes there is always a lag before strategy and tactics catch up - this is when the danger of war is most acute
* Bombers take a great deal of time to get to their target

Because of the nature of nuclear war, the bomb was not an effective way for dealing with everyday problems

Nuclear weapons did not prevent

* USSR from consolidating in Eastern Europe
* USSR from attempting to seize Iran
* USSR from pressuring Turkey
* Yugoslavia and Bulgaria from intervening in the Greek civil war
* North Korea from attacking South Korea

All of this meant that US foreign policy required conventional ground troops = more money

In order to increase the effectiveness of the limited number of NATO troops on the ground in Europe, the US equipped them with battlefield or tactical nuclear weapons in the early 1960s

* Introduced the concept of a limited nuclear war

Missiles change things

* The real change came during the Cuban missile crisis - Soviets tried to hurry things up by sneaking short-range missiles into Cuba
* Soviets were very inferior and backed down - this sparked a building spree

Mutual deterrence

* War less likely
* Cuban missile crisis makes public feel safer - didn’t result in nuclear war.

By mid 60s US gov’t gave up protecting civilians

* Don’t try - nuclear war was only impossible if you were afraid thus don’t try to save civilians

Interservice politics drove much of the arms race

* The money is in strategic forces thus all services try to get in on it
* In the immediate post war era the army was developing rockets and the air force was thinking about long-range delivery systems - bombers and cruise missiles
* Army had the jump on them
* After 52 the air force came around to thinking of rockets - thus competition with army
* Navy wanted in on the action as well - Polaris submarine system
* The pentagon cancelled the army system
* Triad developed as a way of self-justification - Navy - Polaris, Air Force - bombers and missiles
* Became doctrine - the technology existed and then they came up with a strategic/policy justification for it - this is the wrong order, policy should come first

Example

* As the Soviets missiles became more accurate the possibility arose that the Air Force minuteman missiles might be wiped out in a first strike. If all you want is to retaliate, the navy and Bombers could do this for them, but this would mean the air force might have to get out of the missile business

The Air force then needed to come up with mobile land-based missiles to stay in business - The MX

* MADD remained official policy throughout 60s and 70s, but he general staff of he US wanted more options. the Strategic Targeting Doctrines had been evolving from the beginning of the 60s to contemplate selective targets, city avoidance, etc. Limited nuclear war.
* Some think theory of escalation is a myth - incentive to de-escalation might be stronger
* Limited nuclear war was a counter theory to Mutual deterrence

MADD actually didn’t require that sophisticated weapons

* Limited nuclear war means that your target list balloons (40,000 by late 70s) and technology becomes more important

Air force began arguing that their land base missiles were vulnerable

* The Air force then had to find a new role for land base missiles
* Land based missiles are slightly more accurate than sea based
* The air force then had to find targets fro which accuracy was important - not cities and civilians
* The Soviet silos were the answer. But hen this seemed to argue for a first strike capability and this was political suicide in the US
* Air force drew on the emerging doctrine of limited nuclear war to generate a scenario in which at least some Soviet missiles would still be functioning after he Soviets had launched a limited nuclear attack on the US.
* The Air force argued that they needed mobile MX missiles to fire back after the initial strike and that accuracy was important - Prompt Counterforce Targeting
* MX has since been stuffed down old Minute Man silos

When the Soviets got tactical nukes the theory of limited nuclear war would no longer protect Western Europe , but devastate it

* Population centres very close together
* Tactical nukes did not allow NATO to escape the “appeasement or suicide” dilemma

By 1957 the Soviets launched Sputnik

US launched Explorer I shortly after

Era of ICBMs began in 1958

Mutual Deterrence “Balance of Terror” replaced the doctrine of Massive Retaliation

Coexistence

Brought the sides to the table in 1955 at Geneva

* Khrushchev
* Eisenhower

In 1959 Khrushchev spoke of “peaceful coexistence”

* Marx said capitalism would collapse
* Soviets just had to sit back and wait for it to happen
* Implied the substitution of economic competition for military competition
* Most western observers were skeptical of the sincerity of Khrushchev

Met again in 1959 at Camp David - looking good

A second summit in Paris in 1960 ended all that

* U2 - spy plane incident
* Khrushchev under pressure at home for being to conciliatory
* Pressure form Mao for being too conciliatory

Kennedy accelerated the Arms Race

* Slammed Republicans for letting the Soviets get the drop on them
* Pledged to close the “Missile Gap”
* Pledged to reach the moon within the decade
* Defense budgets increased

Disarmament

Advent of new technologies

* MIRV - Multiple warheads on a single missile)
* Anti-ballistic missiles
* Neutron Bomb - eradicate people but leave building standing

Partial Test ban Treaty signed in Moscow in 1963

* Banned testing in the atmosphere, in space and under water
* Did not ban under ground testing

1968 - Nuclear Nonproliferation Treaty signed - eventually by 130 countries

* Non-binding
* Ignores when it suited them
* France - 1960
* China - 1964
* India - 1974
* Pakistan - 1998
* Suspected - Israel, Iran, North Korea, Former Soviet countries

1969 - SALT began

* Difficult reaching agreement on matters such as
* Types of weapons
* Size of weapons
* verification

1972 - SALT I was signed b Nixon and the Soviets

* Reduction of anti-missile defense system
* Work toward parity in offensive weapons
* Agreed to hold certain weapons to a ceiling for a period of five years
* Future talks

SALT II was signed in 1979

* Jimmy Carter
* Parity in strategic long-range nuclear missiles
* Absolute numbers remained high
* Nothing stopped them from developing new weapons

After the Soviet invasion of Afghanistan in 1979 Carter withdrew SALT II from the senate

By 1989 each side had about 25,000 (11,000) nuclear weapons. Together 500,000 mega tonnes

Americans allocate about 60 weapons to targets within Moscow city limits