Teacher Guide Student Worksheet 1-The Historical Context of TIROS

Events of the Space Race

- Russian launching of Sputnik-artificial satellite (October 1957)
- Russian launching of Sputnik II-animal in orbit (November 1957)
- US launching first satellite, Explorer I-Detection of Van Allen radiation belts (January 1958)
- US launching of Vanguard I (March 1958)
- US launched SCORE—Signal Communication via Orbiting Relay Equipment—a short-lived pioneering signal station (December 1958)
- US launching of first weather satellite Vanguard II—technical failures kept in from being considered a success (February 1959)
- US launching TIROS-1st successful weather satellite (April 1960)
- July 20, 1969-Apollo II mission lands a man, astronaut Neil Armstrong, on the moon.

Cold War Events (1960s):

In order to gain a perspective of currents events during the decade in which TIROS was launched, look up, define in your own words, and date the following events:

Sino-Soviet Split: The gradual disintegration of diplomatic ties between the People’s Republic of China and the Soviet Union during the Cold War. (June 1960 is the first public clash between nation leaders. Split was approximately 1959-1969.)

U-2 Crisis of 1960: May 1, 1960, an American U-2 spy plane was shot down over the Soviet Union. While American leader’s created a cover story, the Soviets were able to recover the pilot (Gary Powers) and his mostly-intact plane. They were also able to develop several of the photographs taken during the mission. This event happened right before an East-West summit was to take place and served to further deteriorate Soviet-American relations.

Guatemalan Civil War (Operation PBSUCCESS): When Guatemalan leader Arbenz legalized communism and began to import arms from Soviet-supported Czechoslovakia, the United States Government used the CIA to conduct a coup led by Colonel Carlos Castillo Armas and
forcibly removed Arbenz from power. The United States was motivated by the fear that the Soviets would have a potential beach-head landing in Guatemala if Cold War events escalated. (1954)

**Bay of Pigs:** This was an invasion of Cuba planned by America (CIA) and executed by armed Cuban exiles to overthrow Fidel Castro. It failed, and consequently worsened our relationship with Cuba prior to the Cuban Missile Crisis. (April 1961)

**Cuban Missile Crisis:** This was a two-week confrontation among the United States, the Soviet Union, and Cuba during the Cold War. During this time, tensions ran high as both countries (US and Soviet Union) were positioned to strike each other with missiles and nuclear war seemed imminent. The confrontation began when a United States U-2 reconnaissance plane found Soviet missiles placed in Cuba, this after America had placed missiles in Turkey. It ended with an agreement for both countries to dismantle their missiles. (October 15-28, 1962)

**Berlin Wall Built:** The Geman Democratic Republic (the Soviet controlled section of Germany) places a wall down the middle of Berlin to prevent people from escaping to the West. (August 13, 1961)

**SALT I:** Strategic Arms Limitations Treaty—These talks of armament control—which led to another series of talks called SALT II—froze the number of ballistic missile launchers of the United States and the Soviet Union. (November 17, 1969 to May 1972)

Read this letter exchange between John F. Kennedy and Nikita Khrushchev about a cooperative weather satellite system. How does this fit into the timeline of Cold War events? Although seemingly friendly, this letter exchange is only six months before the Cuban Missile Crisis, one of the most intense periods of the Cold War.

**Kennedy to Khrushchev (March 7, 1962):**

Perhaps we could render no greater service to mankind through our space programs than by the joint establishment of an early operational weather satellite system. Such a system would be designed to provide global weather data for prompt use by any nation. To initiate this service, I propose that the United States and the Soviet Union each launch a satellite to photograph cloud cover and provide other agreed meteorological services for all nations. The two satellites would be placed in near-polar orbits in planes approximately perpendicular to each other, thus providing regular coverage of all areas.
Khrushchev Reply to Kennedy (March 20, 1962):

It is difficult to overestimate the benefit which could be brought to mankind by organizing a world weather observation service with the aid of artificial earth satellites. Precise and timely weather forecast will be another important step along the way to man's conquering of nature, will help him still more successfully cope with natural calamities and open up new prospects for improving the well-being of mankind. Let us cooperate in this field, too.

*Kennedy letter to Khrushchev (March 7, 1962) and Khrushchev's response letter (March 20, 1962)*

*For full text of the Kennedy letter, see Public Papers of John F. Kennedy, 1962, pp. 244-245; and Committee on Aeronautical and Space Sciences, Documents on International Aspects of Space, pp. 242-244.*

*Khrushchev to Kennedy, 20 Mar. 1962, as printed in Committee on Aeronautical and Space Sciences, Documents on International Aspects of Space, pp. 248-251.*
Create a timeline of Cold War events including the launch of the first successful weather satellite (TIROS) and the seemingly friendly letter exchange between Kennedy and Khrushchev: