

Kennedy's Quest: Leadership in Space

Overview

Topic: "Space Race"

Grade Level: 9-12

Subject Area: US History

Time Required: One class period.

Goals/Rationale: The decision by the Kennedy Administration to make a manned lunar landing the major goal of the US space program derived from political as well as scientific motivations. In this lesson plan, students do a close reading of four primary sources related to the US space program in 1961, analyzing how and why public statements made by the White House regarding space may have differed from private statements made within the Kennedy Administration.

Essential Questions: How was the "Space Race" connected to the Cold War? How and why might the White House communicate differently in public and in private? How might the Administration garner support for their policy?

Objectives

Students will be able to:

- analyze primary sources, considering the purpose of the source, the audience, and the occasion.
- analyze the differences in the tone or content of the primary sources.
- explain the Kennedy Administration's arguments for putting a human on the Moon by the end of the 1960s.

Connections to Curriculum (Standards)

National History Standards

US History, Era 9: Postwar United States (1945 to early 1970s) Standard 2A: The student understands the international origins and domestic consequences of the Cold War.

Historical Thinking Skills Standard 2: Historical Comprehension

- Reconstruct the literal meaning of a historical passage.
- Appreciate historical perspectives

Historical Thinking Skills Standard 4: Historical Research Capabilities

- Support interpretations with historical evidence.

Massachusetts History and Social Science Curriculum Framework

USII [T.5] 1. Using primary sources such as campaign literature and debates, news articles/analyses, editorials, and television coverage, analyze the important policies and events that took place during the presidencies of John F. Kennedy (e.g., the confrontation with Cuba over missile bases, the space exploration program, Kennedy's assassination), Lyndon Johnson (the Great Society programs, the Civil Rights and Voting Rights Acts, the Vietnam War and anti-war movements, the 1965 Immigration and Nationality Act, the assassinations of Martin Luther King, Jr., and Robert F. Kennedy), and Richard Nixon (the creation of the Environmental

Protection Agency, diplomacy with China, détente with the Soviet Union, the Watergate scandal, and Nixon's resignation).

Preparation

Prior Knowledge and Skills

Students should have general background knowledge of Cold War tensions between the United States and the Soviet Union.

Historical Background and Context

After World War II, the United States and its allies, and the Soviet Union and its satellite states began a decades-long struggle for supremacy known as the Cold War. Soldiers of the Soviet Union and the United States did not do battle directly during the Cold War. But the two superpowers continually antagonized each other through political maneuvering, military coalitions, espionage, propaganda, arms buildups, economic aid, and proxy wars between other nations. Achievements in space by either country were seen as signs of technological superiority.

In 1957, the Soviet Union launched the satellite *Sputnik*, and the "Space Race" was on. The Soviets' triumph jarred the American people and sparked a vigorous response in the federal government to make sure the United States did not fall behind its Communist rival.

A new space program, Project Mercury, was initiated two years later, during President Dwight D. Eisenhower's administration. Seven men were selected to take part in the program: Scott Carpenter, Leroy Gordon Cooper, John Glenn Jr., Virgil "Gus" Grissom, Walter Schirra Jr., Alan Shepard Jr., and Donald "Deke" Slayton. Project Mercury's goals were to orbit a manned spacecraft around Earth, investigate the ability of astronauts to function in space, and recover astronauts and spacecraft safely.

Then, in 1961, the nation suffered another shock when Soviet cosmonaut Yuri Gagarin became the first man to orbit the Earth. The United States, it seemed, was still falling behind.

President Kennedy believed the United States needed to restore America's confidence and intended not merely to match the Soviets in space, but surpass them. On May 25, 1961, he stood before a joint session of Congress to deliver a special message on "urgent national needs." He asked for an additional \$7 billion to \$9 billion over the next five years for the space program, proclaiming that "this nation should commit itself to achieving the goal, before the decade is out, of landing a man on the Moon and returning him safely to the earth." President Kennedy settled upon this dramatic goal as a means of focusing and mobilizing the nation's lagging space efforts.

To achieve this end, Congress appropriated the funding for NASA's Apollo lunar landing program. It took eight years of work and sacrifice, including the loss of three astronauts in a fire aboard Apollo 1, but President Kennedy's goal was finally achieved on July 20, 1969 when Neil Armstrong and Buzz Aldrin became the first men to walk on the Moon as part of the Apollo 11 mission.

Materials

- *The Kennedy Administration and the “Space Race”*
- [April 12, 1961 telegram from President Kennedy to Nikita Khrushchev](#)
- [April 20, 1961 memo from President Kennedy to Vice President Johnson](#)
- Handout A: Questions to Consider
- [April 28, 1961 memo from Vice President Johnson to President Kennedy](#) (pages 8-13 in the folder).
- Handout B: Questions for Vice President Johnson’s April 28, 1961 Memo to President Kennedy
- [Excerpt from *President Kennedy’s Special Message to the Congress on Urgent National Needs, May 25, 1961*](#) - audio recording and text of the excerpt.
- Handout C: Homework Assignment

Procedure

1. For homework, have students read the following items and answer the accompanying questions in Handout A.
 - *The Kennedy Administration and the “Space Race”*
 - April 12, 1961 telegram from President Kennedy to Premier Khrushchev
 - April 20, 1961 memo from President Kennedy to Vice President Johnson
2. In class, go over the answers to the homework questions, focusing on the public and private nature of the communications.
3. Split students into groups of 3-4, providing each group with Vice President Johnson’s April 28, 1961 memo to President Kennedy. Tell students we do not know who marked up the document—that these were the original markings of the document in the President’s Office Files.

Have students answer the following questions (Handout B):

- How does Vice President Johnson connect the “Space Race” with the Cold War?
 - Why does Vice President Johnson think the US should devote significant resources to boost American achievement in space?
 - Based on this memo, what are some main points you might include in a speech that JFK could give to Congress in order to get them to appropriate enough funds for a manned Moon mission? Have students write these as bullet points.
4. Reassemble as a class and discuss the responses, noting the students’ bullet points on a white board.
 5. Distribute the textual excerpt from *President Kennedy’s Special Message to the Congress on Urgent National Needs, May 25, 1961*.

6. Play the audio excerpt of [JFK's speech](#) (beginning at 30:48 to 38:47) and have students take notes on which of their suggested bullet points were used by the President. Tell them they will use their notes for a homework assignment.

Assessment

For homework, have students write a 1-2 page essay that compares the language Vice President Johnson used in his April 28, 1961 memo with President Kennedy's May 25, 1961 speech to Congress, including answers to these questions (Handout C):

How are the arguments similar?

Answers might include:

[Both primary sources discuss how leadership in space is seen as a sign of world leadership and will impact how other nations view the US.]

[Both mention that the US has not made a concerted effort to take a leading role in space, but we need to do so now. Both mention that our country possesses the resources and talents necessary to be leaders in space. Both discuss the importance of the goal of putting a human on the Moon before the end of the decade.]

[Both discuss the significant monetary costs of space exploration, but maintain it is necessary to start appropriating funds as soon as possible.]

What are some differences between the private memo and the public speech?

Answers might include:

[Johnson mentions that manned exploration of the Moon is an achievement "with great propaganda value." Kennedy does not use the word propaganda in his speech.

Johnson states that a manned trip to the Moon might be accomplished by 1966 or 1967. Kennedy says it can be done by the end of the decade.

Johnson mentions that the cost for a lunar landing would average approximately an additional \$1 billion dollar per year over the next ten years. Kennedy says it will cost an estimated \$7-9 billion additional dollars over the next 5 years.

Johnson mentions that "the American public should be given the facts as to how we stand in the space race, told of our determination to lead in that race, and advised of the importance of such leadership to our future." Kennedy goes a step further in his speech, noting that the decision to move ahead with major investments in money and effort must be made by "every citizen of this country as well as the Members of the Congress," noting that if we are not prepared to bear the burden to make this manned lunar landing venture successful, we should not move forward.]

How might the purpose, the audience, and the occasion have impacted the content of these primary sources?

Answers might include:

[Johnson's memo is private and for the President's eyes so that he can make some decisions. Kennedy's address is for the Congress and the American people, and is intended to garner support for significantly increasing spending on space. Johnson's assertion that the space program has "propaganda value" would not be a good way to "sell" the American people on something that would be economically burdensome. However, telling the Congress (and American people) that the choice of a strong commitment to space discovery is in their hands, and they must be part of the decision-making on whether or not to go ahead with this venture, would be an excellent way to get "buy in" from members of Congress.]

The Kennedy Administration and the “Space Race”

After World War II, the United States and its allies, and the Soviet Union and its satellite states began a decades-long struggle for supremacy known as the Cold War. Soldiers of the Soviet Union and the United States did not do battle directly during the Cold War. But the two superpowers continually antagonized each other through political maneuvering, military coalitions, espionage, propaganda, arms buildups, economic aid, and proxy wars between other nations. Achievements in space by either country were seen as signs of technological superiority.

In 1957, the Soviet Union launched the satellite *Sputnik*, and the “Space Race” was on. The Soviets' triumph jarred the American people and sparked a vigorous response in the federal government to make sure the United States did not fall behind its Communist rival.

A new space program, Project Mercury, was initiated two years later, during President Dwight D. Eisenhower's administration. Seven men were selected to take part in the program: Scott Carpenter, Leroy Gordon Cooper, John Glenn Jr., Virgil "Gus" Grissom, Walter Schirra Jr., Alan Shepard Jr., and Donald "Deke" Slayton. Project Mercury's goals were to orbit a manned spacecraft around Earth, investigate the ability of astronauts to function in space, and recover astronauts and spacecraft safely.

Then, in 1961, the nation suffered another shock when Soviet cosmonaut Yuri Gagarin became the first man to orbit the Earth. The United States, it seemed, was still falling behind.

President Kennedy believed the United States needed to restore America's confidence and intended not merely to match the Soviets in space, but surpass them. On May 25, 1961, he stood before Congress to deliver a special message on "urgent national needs." He asked for an additional \$7 billion to \$9 billion over the next five years for the space program, proclaiming that "this nation should commit itself to achieving the goal, before the decade is out, of landing a man on the Moon and returning him safely to the earth." President Kennedy settled upon this dramatic goal as a means of focusing and mobilizing the nation's lagging space efforts.

To achieve this end, Congress appropriated the funding for NASA's Apollo lunar landing program. It took eight years of work and sacrifice, including the loss of three astronauts in a fire aboard Apollo 1, but President Kennedy's goal was finally achieved on July 20, 1969 when Neil Armstrong and Buzz Aldrin became the first men to walk on the Moon as part of the Apollo 11 mission.

reph/

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IMMEDIATE RELEASE

April 12, 1961

Office of the White House Press Secretary

THE WHITE HOUSE

FOLLOWING IS THE TEXT OF THE
PRESIDENT'S TELEGRAM TO THE
CHAIRMAN OF THE COUNCIL OF
MINISTERS, UNION OF SOVIET
SOCIALIST REPUBLICS, N.S.
KHRUSHCHEV:

12 April 1961

The people of the United States share with the people of the Soviet Union their satisfaction for the safe flight of the astronaut in man's first venture into space. We congratulate you and the Soviet scientists and engineers who made this feat possible. It is my sincere desire that in the continuing quest for knowledge of outer space our nations can work together to obtain the greatest benefit to mankind.

John F. Kennedy

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THE WHITE HOUSE

WASHINGTON

April 20, 1961

MEMORANDUM FOR

VICE PRESIDENT

In accordance with our conversation I would like for you as Chairman of the Space Council to be in charge of making an overall survey of where we stand in space.

1. Do we have a chance of beating the Soviets by putting a laboratory in space, or by a trip around the moon, or by a rocket to land on the moon, or by a rocket to go to the moon and back with a man. Is there any other space program which promises dramatic results in which we could win?
2. How much additional would it cost?
3. Are we working 24 hours a day on existing programs. If not, why not? If not, will you make recommendations to me as to how work can be speeded up.
4. In building large boosters should we put out emphasis on nuclear, chemical or liquid fuel, or a combination of these three?
5. Are we making maximum effort? Are we achieving necessary results?

I have asked Jim Webb, Dr. Weisner, Secretary McNamara and other responsible officials to cooperate with you fully. I would appreciate a report on this at the earliest possible moment.



Kennedy's Quest: Leadership in Space

Handout A – Questions to Consider

After reading the following items, answer the questions below.

- *The Kennedy Administration and the "Space Race"*
- April 12, 1961 telegram from President Kennedy to Premier Khrushchev
- April 20, 1961 memo from President Kennedy to Vice President Johnson

1. In the early 1960s, why was the US concerned about falling behind the Soviets in achievements in space?
2. What event caused President Kennedy to write his April 12, 1961 telegram to Premier Nikita Khrushchev?
3. In his April 12, 1961 telegram to Premier Khrushchev, how does President Kennedy say he would like the United States and the Soviet Union to work on exploring outer space?
4. What are President Kennedy's main objectives in writing his April 20, 1961 memo to Vice President Lyndon Johnson?
5. What is the main difference between what President Kennedy says in the telegram and what he says in the memo in terms of how the Americans and the Soviets should explore outer space?
6. Why do you think President Kennedy appears to be giving two conflicting statements?

Kennedy's Quest: Leadership in Space

Handout A – Questions to Consider (Answer Sheet)

After reading the following items, answer the questions below.

- *The Kennedy Administration and the "Space Race"*
- April 12, 1961 telegram from President Kennedy to Premier Khrushchev
- April 20, 1961 memo from President Kennedy to Vice President Johnson

1. In the early 1960s, why was the US concerned about falling behind the Soviets in achievements in space?

[Achievements in space were seen as a sign of technological superiority by two nations that were trying to show that they had superior strength.]

2. What event caused President Kennedy to send his April 12, 1961 telegram to Premier Nikita Khrushchev?

[Yuri Gagarin became the first person to orbit the Earth on April 12, 1961.]

3. In his April 12, 1961 telegram to Premier Khrushchev, how does President Kennedy say he would like the United States and the Soviet Union to work on exploring outer space?

[JFK says it is his "sincere desire" that the two countries work together on accomplishments in space.]

4. What are President Kennedy's main objectives in writing his April 20, 1961 memo to Vice President Lyndon Johnson?

[JFK wants information about US efforts in space. He wants to find ways that the US can achieve more in space than the Soviets.]

5. What is the main difference between what President Kennedy says in his telegram and what he says in his memo in terms of how the US and the Soviets should explore outer space?

[In the telegram, he congratulates Premier Khrushchev and mentions working together. In the memo, writes about "beating the Soviets" and uses the word "win." He does not mention cooperation.]

6. Why do you think President Kennedy appears to be giving two conflicting statements?

[The telegram is a public statement with a diplomatic purpose. The memo is a private document for use within the Administration to achieve a particular policy goal.]



OFFICE OF THE VICE PRESIDENT
WASHINGTON, D. C.

April 28, 1961

MEMORANDUM FOR THE PRESIDENT

Subject: Evaluation of Space Program.

Reference is to your April 20 memorandum asking certain questions regarding this country's space program.

A detailed survey has not been completed in this time period. The examination will continue. However, what we have obtained so far from knowledgeable and responsible persons makes this summary reply possible.

Among those who have participated in our deliberations have been the Secretary and Deputy Secretary of Defense; General Schriever (AF); Admiral Hayward (Navy); Dr. von Braun (NASA); the Administrator, Deputy Administrator, and other top officials of NASA; the Special Assistant to the President on Science and Technology; representatives of the Director of the Bureau of the Budget; and three outstanding non-Government citizens of the general public: Mr. George Brown (Brown & Root, Houston, Texas); Mr. Donald Cook (American Electric Power Service, New York, N. Y.); and Mr. Frank Stanton (Columbia Broadcasting System, New York, N. Y.).

The following general conclusions can be reported:

a. Largely due to their concentrated efforts and their earlier emphasis upon the development of large rocket engines, the Soviets are ahead of the United States in world prestige attained through impressive technological accomplishments in space.

b. The U. S. has greater resources than the USSR for attaining space leadership but has failed to make the necessary hard decisions and to marshal those resources to achieve such leadership.

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E.O. 11652, Sec. 3(E) and 5(D) or (E)
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c. This country should be realistic and recognize that other nations, regardless of their appreciation of our idealistic values, will tend to align themselves with the country which they believe will be the world leader -- the winner in the long run. Dramatic accomplishments in space are being increasingly identified as a major indicator of world leadership.

d. The U. S. can, if it will, firm up its objectives and employ its resources with a reasonable chance of attaining world leadership in space during this decade. This will be difficult but can be made probable even recognizing the head start of the Soviets and the likelihood that they will continue to move forward with impressive successes. In certain areas, such as communications, navigation, weather, and mapping, the U. S. can and should exploit its existing advance position.

e. If we do not make the strong effort now, the time will soon be reached when the margin of control over space and over men's minds through space accomplishments will have swung so far on the Russian side that we will not be able to catch up, let alone assume leadership.

f. Even in those areas in which the Soviets already have the capability to be first and are likely to improve upon such capability, the United States should make aggressive efforts as the technological gains as well as the international rewards are essential steps in eventually gaining leadership. The danger of long lags or outright omissions by this country is substantial in view of the possibility of great technological breakthroughs obtained from space exploration.

g. Manned exploration of the moon, for example, is not only an achievement with great propaganda value, but it is essential as an objective whether or not we are first in its accomplishment -- and we may be able to be first. We cannot leapfrog such accomplishments, as they are essential sources of knowledge and experience for even greater successes in space. We cannot expect the Russians to transfer the benefits of their experiences or the advantages of their capabilities to us. We must do these things ourselves.

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h. The American public should be given the facts as to how we stand in the space race, told of our determination to lead in that race, and advised of the importance of such leadership to our future.

i. More resources and more effort need to be put into our space program as soon as possible. We should move forward with a bold program, while at the same time taking every practical precaution for the safety of the persons actively participating in space flights.

* * * * *

As for the specific questions posed in your memorandum, the following brief answers develop from the studies made during the past few days. These conclusions are subject to expansion and more detailed examination as our survey continues.

Q.1 - Do we have a chance of beating the Soviets by putting a laboratory in space, or by a trip around the moon, or by a rocket to land on the moon, or by a rocket to go to the moon and back with a man. Is there any other space program which promises dramatic results in which we could win?

A.1 - The Soviets now have a rocket capability for putting a multi-manned laboratory into space and have already crash-landed a rocket on the moon. They also have the booster capability of making a soft landing on the moon with a payload of instruments, although we do not know how much preparation they have made for such a project. As for a manned trip around the moon or a safe landing and return by a man to the moon, neither the U. S. nor the USSR has such capability at this time, so far as we know. The Russians have had more experience with large boosters and with flights of dogs and man. Hence they might be conceded a time advantage in circumnavigation of the moon and also in a manned trip to the moon. However, with a strong effort, the United States could conceivably be first in those two accomplishments by 1966 or 1967.

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There are a number of programs which the United States could pursue immediately and which promise significant world-wide advantage over the Soviets. Among these are communications satellites, meteorological and weather satellites, and navigation and mapping satellites. These are all areas in which we have already developed some competence. We have such programs and believe that the Soviets do not. Moreover, they are programs which could be made operational and effective within reasonably short periods of time and could, if properly programmed with the interests of other nations, make useful strides toward world leadership.

Q. 2 - How much additional would it cost?

A. 2 - To start upon an accelerated program with the aforementioned objectives clearly in mind, NASA has submitted an analysis indicating that about \$500 million would be needed for FY 1962 over and above the amount currently requested of the Congress. A program based upon NASA's analysis would, over a ten-year period, average approximately \$1 billion a year above the current estimates of the existing NASA program.

\$2 billion

While the Department of Defense plans to make a more detailed submission to me within a few days, the Secretary has taken the position that there is a need for a strong effort to develop a large solid-propellant booster and that his Department is interested in undertaking such a project. It was understood that this would be programmed in accord with the existing arrangement for close cooperation with NASA, which Agency is undertaking some research in this field. He estimated they would need to employ approximately \$50 million during FY 1962 for this work but that this could be financed through management of funds already requested in the FY 1962 budget. Future defense budgets would include requests for additional funding for this purpose; a preliminary estimate indicates that about \$500 million would be needed in total.

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Q. 3 - Are we working 24 hours a day on existing programs. If not, why not? If not, will you make recommendations to me as to how work can be speeded up.

A. 3 - There is not a 24-hour-a-day work schedule on existing NASA space programs except for selected areas in Project Mercury, the Saturn-C-1 booster, the Centaur engines and the final launching phases of most flight missions. They advise that their schedules have been geared to the availability of facilities and financial resources, and that hence their overtime and 3-shift arrangements exist only in those activities in which there are particular bottlenecks or which are holding up operations in other parts of the programs. For example, they have a 3-shift 7-day-week operation in certain work at Cape Canaveral; the contractor for Project Mercury has averaged a 54-hour week and employs two or three shifts in some areas; Saturn C-1 at Huntsville is working around the clock during critical test periods while the remaining work on this project averages a 47-hour week; the Centaur hydrogen engine is on a 3-shift basis in some portions of the contractor's plants.

This work can be speeded up through firm decisions to go ahead faster if accompanied by additional funds needed for the acceleration.

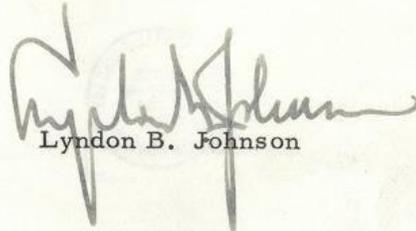
Q. 4 - In building large boosters should we put our emphasis on nuclear, chemical or liquid fuel, or a combination of these three?

A. 4 - It was the consensus that liquid, solid and nuclear boosters should all be accelerated. This conclusion is based not only upon the necessity for back-up methods, but also because of the advantages of the different types of boosters for different missions. A program of such emphasis would meet both so-called civilian needs and defense requirements.

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Q. 5 - Are we making maximum effort? Are we achieving necessary results?

A. 5 - We are neither making maximum effort nor achieving results necessary if this country is to reach a position of leadership.


Lyndon B. Johnson

Kennedy's Quest: Leadership in Space

Handout B – Questions for Vice President Johnson's April 28, 1961 Memo to President Kennedy

1. How does Vice President Johnson connect the “Space Race” with the Cold War?
2. Why does Vice President Johnson think the US should devote significant resources to boost American achievement in space?
3. Based on the Vice President's memo, what are some main points you might include in a speech that President Kennedy could give to Congress in order to get them to appropriate enough funds for a Moon mission? Write them as bullet points below.

Kennedy's Quest: Leadership in Space

Handout B – Questions for Vice President Johnson's April 28, 1961 Memo to President Kennedy (Answer Sheet)

1. How does Vice President Johnson connect the “Space Race” with the Cold War?

[Answers might include: Johnson notes that other countries “will tend to align themselves with the country which they believe will be the world leader”—and major achievements in space are identified as a sign of world leadership.]

2. Why does Vice President Johnson think the US should devote significant resources to boost American achievement in space?

[Answers might include: Not only do we need to show other countries our strength and leadership through space achievements, but we may miss “great technological breakthroughs” if we do not invest in space.]

3. Based on the Vice President's memo, what are some main points you might include in a speech that President Kennedy could give to Congress in order to get them to appropriate enough funds for a Moon mission? Write them as bullet points below.

[Answers might include:

- Major achievements in space are identified as a sign of world leadership.
- Our prestige in the world is tied to technological accomplishments.
- We are currently not putting in the full effort or achieving the results we need to become the world leader in space—but we have the resources to do so.
- Though we are currently behind the Soviets in space accomplishments, we are determined to move ahead.
- We need to allocate more resources towards the space program as soon as possible.
- We have a chance of putting a person on the Moon by 1966 or 1967, if we put in the resources and effort.
- Technological breakthroughs are possible as we work on sending a person to the Moon.
- We already have some proficiency in “communications satellites, meteorological and weather satellites, and navigation and mapping satellites”—and we may be able to surpass the Soviets in these areas.
- The cost for a manned lunar mission and for additional work on our satellites would increase current funding for NASA by about \$1 billion a year over 10 years.]

Excerpt from Special Message to the Congress on Urgent National Needs
President John F. Kennedy
Delivered in person before a joint session of Congress, May 25, 1961

IX. SPACE

Finally, if we are to win the battle that is now going on around the world between freedom and tyranny, the dramatic achievements in space which occurred in recent weeks should have made clear to us all, as did the Sputnik in 1957, the impact of this adventure on the minds of men everywhere, who are attempting to make a determination of which road they should take. Since early in my term, our efforts in space have been under review. With the advice of the Vice President, who is Chairman of the National Space Council, we have examined where we are strong and where we are not, where we may succeed and where we may not. Now it is time to take longer strides--time for a great new American enterprise--time for this nation to take a clearly leading role in space achievement, which in many ways may hold the key to our future on earth.

I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decisions or marshalled the national resources required for such leadership. We have never specified long-range goals on an urgent time schedule, or managed our resources and our time so as to insure their fulfillment.

Recognizing the head start obtained by the Soviets with their large rocket engines, which gives them many months of leadtime, and recognizing the likelihood that they will exploit this lead for some time to come in still more impressive successes, we nevertheless are required to make new efforts on our own. For while we cannot guarantee that we shall one day be first, we can guarantee that any failure to make this effort will make us last. We take an additional risk by making it in full view of the world, but as shown by the feat of astronaut Shepard, this very risk enhances our stature when we are successful. But this is not merely a race. Space is open to us now; and our eagerness to share its meaning is not governed by the efforts of others. We go into space because whatever mankind must undertake, free men must fully share.

I therefore ask the Congress, above and beyond the increases I have earlier requested for space activities, to provide the funds which are needed to meet the following national goals:

First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish. We propose to accelerate the development of the appropriate lunar space craft. We propose to develop alternate liquid and solid fuel boosters, much larger than any now being developed, until certain which is superior. We propose additional funds for other engine development and for unmanned explorations--explorations which are particularly important for one purpose which this nation will never overlook: the survival of the man who first makes this daring flight. But in a very real sense, it will not be one man going to the Moon--if we make this judgment affirmatively, it will be an entire nation. For all of us must work to put him there.

Secondly, an additional 23 million dollars, together with 7 million dollars already available, will accelerate development of the Rover nuclear rocket. This gives promise of some day providing a means for even more exciting and ambitious exploration of space, perhaps beyond the Moon, perhaps to the very end of the solar system itself.

Third, an additional 50 million dollars will make the most of our present leadership, by accelerating the use of space satellites for world-wide communications.

Fourth, an additional 75 million dollars--of which 53 million dollars is for the Weather Bureau--will help give us at the earliest possible time a satellite system for world-wide weather observation.

Let it be clear--and this is a judgment which the Members of the Congress must finally make--let it be clear that I am asking the Congress and the country to accept a firm commitment to a new course of action, a course which will last for many years and carry very heavy costs: 531 million dollars in fiscal '62--an estimated seven to nine billion dollars additional over the next five years. If we are to go only half way, or reduce our sights in the face of difficulty, in my judgment it would be better not to go at all.

Now this is a choice which this country must make, and I am confident that under the leadership of the Space Committees of the Congress, and the Appropriating Committees, that you will consider the matter carefully.

It is a most important decision that we make as a nation. But all of you have lived through the last four years and have seen the significance of space and the adventures in space, and no one can predict with certainty what the ultimate meaning will be of mastery of space.

I believe we should go to the Moon. But I think every citizen of this country as well as the Members of the Congress should consider the matter carefully in making their judgment, to which we have given attention over many weeks and months, because it is a heavy burden, and there is no sense in agreeing or desiring that the United States take an affirmative position in outer space, unless we are prepared to do the work and bear the burdens to make it successful. If we are not, we should decide today and this year.

This decision demands a major national commitment of scientific and technical manpower, materiel and facilities, and the possibility of their diversion from other important activities where they are already thinly spread. It means a degree of dedication, organization and discipline which have not always characterized our research and development efforts. It means we cannot afford undue work stoppages, inflated costs of material or talent, wasteful interagency rivalries, or a high turnover of key personnel.

New objectives and new money cannot solve these problems. They could in fact, aggravate them further--unless every scientist, every engineer, every serviceman, every technician, contractor, and civil servant gives his personal pledge that this nation will move forward, with the full speed of freedom, in the exciting adventure of space.

Kennedy's Quest: Leadership in Space

Handout C - Homework Assignment

Write a 1-2 page essay that compares the language Vice President Johnson used in his April 28, 1961 memo to President Kennedy with the excerpt from President Kennedy's May 25, 1961 *Special Message to the Congress on Urgent National Needs*, including answers to these questions:

- How are the arguments similar?
- What are some differences between the private memo and the public speech?
- How might the purpose, the audience, and the occasion have impacted the content of these primary sources?