Gerald R. Ford Presidential Museum

One Click History

NASA Then and Now Activity





The goal of this activity is to use primary source materials for research, content, and understanding.



Linked are four documents, each looking toward the future of the National Aeronautics and Space Administration.



Have students read each document, completing a Document Analysis Worksheet (linked) for all three.



Follow this with a class discussion centered on the differences and similarities in the United States space programming over seven decades. What are their missions, goals, hopes? Is there collaboration or competition in each program?



This activity can be supplemented with student research projects or papers into an era, or specific mission, of our on-going space program.

President Eisenhower Meeting, 1958, page 1

Link to full message: https://www.eisenhower.archives.gov/research/online_documents/sputnik/3_6_58.pdf

U. S. OBJECTIVES IN SPACE EXPLORATION AND SCIENCE (NSC Action No. 1859)

General Cutler introduced Dr. Killian, who stated initially that the reports to be given by himself, Dr. Purcell and Dr. York were in the nature of informal reports and would not contain specific recommendations. Next, Dr. Killian undertook to explain the main motives behind the development of space technology and space exploration. These he listed as, first, natural human curiosity about the nature of the universe; secondly, military considerations; third, U. S. prestige vis-a-vis the Soviet Union and other countries; and fourth, scientific observation and experiment. Space travel, thought Dr. Killian, may or may not have material and practical values, but the space programs that would be discussed at this time must, all of them, be based on the above-mentioned four motivating factors.

Dr. Killian then indicated that various programs of differing size, shape and cost would be presented to the Council in order to provide the basis for a subsequent choice of a U. S. national outer space program. Dr. Killian, in this context, pointed out the need for a balanced outer space program-one which would take into due account the other great national security programs, inasmuch as any effective outer space program was bound to prove very costly.

Thereafter Dr. Killian called on Dr. Purcell, who discussed with the Council his views on space science and the objectives of space science. At the end of his discussion, these objectives were summarized on a chart which was divided into three time-periods: Early (first years), Later (two to five years), and Still Later (five to fifteen years). Dr. Purcell concluded his remarks with comments on the military application of space exploration. He listed on a chart (1) communications; (2) reconnaissance (optical, radio, infrared); (3) early warning; (4) meteorological.

At the conclusion of Dr. Purcell's remarks, the President inquired whether Dr. Purcell thought it would be a good idea if there could be more public education with respect to the matters in his report. The general view seemed to be in the affirmative.

The President then inquired of Dr. Purcell whether the distant planets of which he had spoken rotated on their own axis as did our earth. Dr. Purcell replied that most of them did, but that there were some we could hardly see and could not determine whether they rotated or not. Gerald Ford Speech, 1959 pg. 1

Link to full speech: https://www.fordlibrarymuseum.gov/library/document/0054/4525741.pdf

THE CHALLENGES OF THE SPACE AGE

It was almost a year ago that the first Soviet sputnik rose into orbit, to be followed by two more of great weight and by four of more modest weight put up by the United States. Despite all the headlines which have accompanied launchings, there is reason to question whether the people as a whole fully recognize that our life has begun to change, following a new, irreversible path.

In the late winter of 1958, the House of Representatives established a Select Committee on Astronautics and Space Exploration to consider the legislative needs which the new space age would bring. This committee, of which I am a member, held a month of public hearings and spent several weeks in executive session to study the implications of the new technology for military strategy, for scientific advance, and for the economy. We also considered a large number of possible organizational patterns before there emerged the draft bill which the Congress enacted into law.

Meeting Outline, 1976, page 1

Link to meeting document: https://www.fordlibrarymuseum.gov/library/document/0039/16988436.pdf

THE WHITE HOUSE

WASHINGTON

September 7, 1976

MEETING WITH DR. JAMES FLETCHER
Wednesday, September 8, 1976
12:15 p.m. (30 minutes)
The Oval Office

From: Jim Cannon

I. PURPOSE

- Part I (5 minutes) to permit (1) Dr. Fletcher to present you a model of the Space Shuttle and (2) you to announce your request to Fletcher -- and his acceptance -- of a proposal to name the first shuttle orbiter the "Enterprise."
- Part II (about 25 minutes) to permit Dr. Fletcher to (1) report on NASA accomplishments, and (2) express his concerns about the space program.

II. BACKGROUND, PARTICIPANTS, AND PRESS PLAN

A. Background - Part I

The first important visible effort in the Shuttle program -- the roll-out of the first orbiter for the Space Shuttle -- occurs on September 17 at Palmdale, California. Your advisers have recommended (and Dr. Fletcher has agreed to accept) a request from you to name the orbiter the "Enterprise," -- a proposal made by thousands of "Star Trek" fans.

Background - Part II

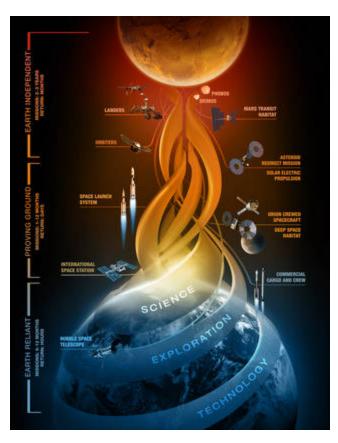
- 1. Dr. Fletcher would like to report briefly on NASA accomplishments and plans, particularly on the Viking landings on Mars and the Space Shuttle.
- 2. He will also mention his concerns that U.S. space capabilities have eroded and that the NASA program has been cut too deeply. He had asked for an opportunity to present his concerns before decisions were made on 1978 Budget planning ceilings. Since planning ceilings have been set, he will be reluctant to stress his concerns now and probably will propose a later meeting for this purpose.

NASA Plan, 2015

Oct. 8, 2015 RELEASE 15-206

Link to full plan: https://www.nasa.gov/press-release/nasa-releases-plan-outlining-next-steps-in-the-journey-to-mars

NASA Releases Plan Outlining Next Steps in the Journey to Mars



An artist's depiction of the Earth Reliant, Proving Ground and Earth Independent thresholds, showing key capabilities that will be developed along the way.



The space station is the only microgravity platform for the long-term testing of new life support and crew health systems, advanced habitat modules, and other technologies needed to decrease reliance on Earth. NASA astronauts Kjell Lindgren, left, and Scott Kelly are pictured here, just before the halfway point of Kelly's one-year mission on station.

Credits: NASA

Selected Critical Time Frames and Decisions DECISIONS MADE & IMPLEMENTATION UNDERWAY Extend ISS operations to at least - Develop an exploration EVA suit Select initial human missions for use on Orion missions beyond the Proving Ground 2024 Pursue an evolvable SLS via . Define initial deep-space . Identify the role of ISRU in the Exploration Upper Stage before habitation capability overall logistics strategy advanced solid rocket boosters Select in-space transportation . Design Mars surface habitats Select an ARM baseline mission. systems . Develop Mars surface power to return an asteroidal boulder to Identify future Mars robotic generation lunar orbit for subsequent crew precursor missions beyond Mars nendezvous. 2020 Predeploy cargo and Further define potential future intrastructure through split exploration missions in dislunar missions. REVISED.

This table shows high-level, near-, and far-term decisions that must be made to continue on the journey to Mars.

Written Document Analysis Worksheet TYPE OF DOCUMENT (Check one): 1. Newspaper Advertisement Мар Congressional record Telegram Letter Census report Patent Press release Memorandum Other Report UNIQUE PHYSICAL QUALITIES OF THE DOCUMENT (Check one or more): 2. Interesting letterhead **Notations** _ Handwritten "RECEIVED" stamp _ Typed _ Other Seals 3. DATE(S) OF DOCUMENT: 4. AUTHOR (OR CREATOR) OF THE DOCUMENT: POSITION (TITLE): 5. FOR WHAT AUDIENCE WAS THE DOCUMENT WRITTEN? 6. DOCUMENT INFORMATION (There are many possible ways to answer A-E.) A. List three things the author said that you think are important: B. Why do you think this document was written? C. What evidence in the document helps you know why it was written? Quote from the document. D. List two things the document tells you about life in the United States at the time it was written:

E. Write a question to the author that is left unanswered by the document: