

In 1956, the decision was made to put the Vanguard satellite in orbit. A cheap rocket and simple satellite were developed, to keep costs down. In the fall, there was a meeting of nations who'd been carrying out a study; the Soviet rep mentioned tuning radios in to the frequency at which you could hear Sputnik's signals. (Vanguard wasn't in orbit yet). Eisenhower thought this was great, because it made flying over each other's countries (overflight) okay. He saw what this meant for the DOD, and did see some scientific possibilities.

Soviet space program moved ahead quickly because of strong leadership.

VP Johnson was more interested in how the US could "get ahead of the Soviets."

Eisenhower budgeted a billion dollars towards some kind of program, and Kennedy added some. The budget increased as additional concrete plans (manned flight, manned moon landing, etc) were approved.

While planning all the stages of the mission, they ran into the problem of how to reunite the lunar lander and the capsule. They got successful practice with LOR before Apollo, with Gemini. Seamans felt there really wasn't a suitable way other than LOR.

- German team favored Earth-orbit rendezvous
- Werner von Braun told them they'd done an excellent job, but that he favored LOR

Doc Draper wanted to go into space himself (at age 60 or so); Jim Webb was excited about this - about one of their own scientists actually going on the mission. Bob talked to him about all the reasons this was a bad idea... so forever after that, Doc jokingly blamed him for "not letting him fly."

The Soviets had a manned lunar program going on in the late sixties, but they didn't know what to do with it; they ended up cancelling it after a series of rocket disasters.

- also didn't have a civilian industrial complex to bring to bear; only government programs

Questions posed by the class:

What piece of advice would he give us, the generation who will probably go back to the moon?

- This is tough, but he would say: be sure you have goals that you understand, and that are nationally accepted. Going to the moon is sufficiently huge that you can't do it without enough serious public support.
- There has to be support within the administration and Congress that understands what this project really requires (funding, etc).

- You need technical capability within the government to handle such a program and be able to navigate problems or complications that come up.

What are the main benefits we've gained from going the moon?

- In his opinion: we've realized that the Earth is our only real home, and we need to take care of it; we can't say we'll just colonize the moon if we ruin Earth, because we've learned how incomparable the Earth is to it, and how expensive it is to get to the moon.

What was the role of scientific community?

- not able to do as much in the first few flights as they wanted to, but in later flights, they gained more ground
- not a very big role; he has the sense that resources were wasted by not being used.