

# MAE 146 Tape Review. One Giant Step.

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The tape was on the Apollo space program. Called *one giant step*. It was about the main events during the Apollo space program and the story leading to the landing on the moon.

These are the main points discussed in the tape.

1. In January 1967, during an Apollo test flight, it ends in tragedy where 3 astronauts died. Oxygen leak was the cause. The Apollo program was much more complicated than the Mercury and the Gemini programs.
2. Tape showed an interview with Deke Slayton, an Apollo astronaut about the accident. Also, Kraft, the Apollo flight director was interviewed on tape about this.
3. A big meeting occurred between NASA senior officials and President Kennedy. During the meeting, Kennedy asked NASA officials why they can not guarantee to be able to send a man to the moon with a cost of 10 billion dollars and 10 years to do this. Some pressure was mounting that the cost of sending a man to the moon could be better spent somewhere else.
4. The reason why Kennedy wanted the race between the Russians and the US to be about who can get to the moon first, is that a new and more powerful rocket booster is needed for this mission. This means the Russians can not use their current boosters for this mission, so the race to the moon between the two countries would require both to build a new booster rocket, and this would give the US an equal chance of beating the Russians.
5. 3 months after the Apollo accidents which killed 3 astronauts, a USSR astronaut, Komarov, had a fatal accident as well.
6. The Apollo accidents give NASA more time to improve and redesign the Apollo program. Due to the Vietnam war, NASA was becoming less important to the now President Johnson. Webb, the NASA director, quits his job.

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\*Course taken during Spring 2003.

7. By 1968, USSR send space vehicle with animals to an orbit around the moon and back.
8. Apollo 8, with weight of 7 million pounds. It was a big success, but now the race to meet Kennedy set deadline of sending a man to the moon was getting close, with only 8 months remaining.
9. Apollo 10 conducts full test of a moon flight.
10. Apollo 11 will be the flight to land a man to the moon. In July 1969, Apollo 11 launched. On July 20, the eagle vehicle separate and lands on the surface on the moon. Landing fuel was getting short, and with 30 seconds supply of fuel, the eagle lands on the moon. Neil Armstrong was the first man to leave and lands on the moon. This event was televised live all over the world. The president calls the astronomers and talks to them from his oval office.
11. After one night on the moon, they leave back to earth. Apollo is back to earth after 8 days. Due to concern about biological contamination, they are kept in quarantine for 21 days.
12. The space race is declared over, the US has won the race. USSR has redirected its space program to near earth flights.
13. After Apollo 11, 6 more missions where conducted.
14. Apollo 12 launched in bad weather and was struck by lightning. But the decision was made to keep going to the moon. But by now, the public interest in the apollo program was fading. Apollo 13, half way to the moon, had a major accident, when one of the two oxygen tanks exploded. The crew where running out of oxygen.
15. Eventually, Apollo 13 after aborting the flight, manages to return safely to earth. A movie was made about the Apollo 13 drama.