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Instructor: Walker Vave

Class Meeting Time: WF 11-12

Date of Speech: 2/28/19

Specific Purpose: To persuade the audience that the Space Shuttle program was a failure

Central Idea: The Space Shuttle was dangerous, too expensive, and too revolutionary

Organizational Pattern: Refutation

Introduction

I.Attention-getter: A short view to the past, at 11:29 am Space Shuttle Atlantis lifts off for the final time, marking an end to the “successful” Space Shuttle program. Today, I am going to attempt to persuade you otherwise, that the shuttle program was actually a failure

II.Establish Credibility: Over the past few years, I have really researched deep into space travel, because I believe in its future.

III.Relate to Audience: Most of you know what the Space Shuttle was, if not here is a short overview, it was a spaceship designed to cut cost by being reusable, as opposed to just wasting the entire space ship.

IV.Preview Main Points: As for why it was a failure, it was a failure because it was dangerous, expensive, and not reusable.

[Now, moving onto my first point, the Space Shuttle was dangerous]

Body

I.Main Point 1: The National Aeronautics and Space Administration said that the Space Shuttle would be safe, even from the beginning, they were wrong.

A. If we are putting American lives up into space, they better be in the best possible position to come home.

B. At the beginning of the program, NASA said that the shuttle had failure rate of 1 in 100,000 (Harry Jones from a NASA journal)

C. There was no way that number could be achieved before or after

1. NASA engineers were polled anonymously, 1 in 100 (William Broad, New York Times)
2. After the end, with hindsight 1 in 68

D. The evidence suggests that the shuttle was not safe at all.

E. The fact of the matter is, NASA wasn't telling the truth, the shuttle was actually very dangerous

1. It has become the deadliest manned space craft to have ever existed
2. Challenger and Columbia

[My second point is that isn't wasn't cheap like it was supposed to be]

I.Main Point 2: NASA said that the shuttle would make it, so space flight become much more affordable.

A. At the end of the day, it is our tax dollars that our paying for these missions, and they should be cost effective, and stay on budget.

B. From the very beginning, it was clear that the shuttle program would not be able to meet goals

C. Now that the shuttle program is over, the statistics can be analyzed.

1. NASA predicted that each shuttle mission would cost mere 20 million dollars
2. In the end, each shuttle cost around 1.4 billion per launch, with a total program cost of around 209 billion (Space.com Mike Wall)

D. It can be clearly seen that the Space Shuttle was actually very expensive

E. NASA is not well funded in the first place; the Space Shuttle was bound to fail with those high expenses.

1. Hence why NASA pulled the plug on the shuttle program in 2011, leaving America with no manned space vehicle.
2. Conventional rockets designed to be replaced by the shuttle, were actually cheaper,

[Moving on to my last point, reusability.]

I.Main Point 3: One of the main reasons the shuttle was built, was because of reusability, the thing was it was hardly reusable.

A. Reusability was the main selling point of the shuttle, unlike regular rockets, parts of the shuttle could be reused. Reusability if done right allows something to be cheap

B. Using reusability, NASA said they wanted to a space truck, being able to quickly come back to earth, and be back to space in no time.

C. Design compromises and technology limitations meant this was not possible

1. NASA projected to launch 1 shuttle per month and 150 launches over 15 years, they were nowhere near that.

2. Over the 30 year lifespan there were 135 launches at around 4 launches per year (Forbes.com Carol Pinchefskey)
- D. Hence it wasn't reusable, rather it was refurbished. Words that are similar but different
- E. Being refurbish able meant that it could not meet its launch frequency projected by NASA
 1. It took around 750,000-man hours to refurbish the shuttle after each mission.(NASA.gov Steven Sullivan)
 2. It was actually cheaper to build new engines for the shuttle, rather than refurbishing them.

Conclusion

I.Transition Statement: In conclusion I hoped persuaded you to think that the Space Shuttle was a failure, not a success

II.Review of Main Points: Over this speech, I talked about the danger, the cost, and the lack of reusability of the Space Shuttle.

III.Call to Action: Don't let the shuttle leave a bad impression on space travel, space exploration is hugely important for humans. The future is bright for space, just not with the government.

IV.Memorable End: This is the Russian/Soviet Soyuz it was first launched in the 60's. Exactly the rocket the shuttle was designed to replace. In the year 2020, it remains the only rocket capable of taking humans to space...ironic isn't it.

Works Cited

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