SpaceX

The Travel of the Future

History of Space Travel

NASA is born

- The National Aeronautics and Space Act was passed by congress on July 16, 1958
- Signed into on July 29, 1958
- NACA (National Advisory Committee of Aeronautics) was founded March 3, 1915
- Operations were joined with to NASA (National Aeronautics and Space Administration)
 on Oct 1 1958
- Many projects would be rushed through due to the rising political threat of the USSR.
- This would cause the first American attempt at a rock in space, the Vanguard rocket, to be a failure on December 6, 1957

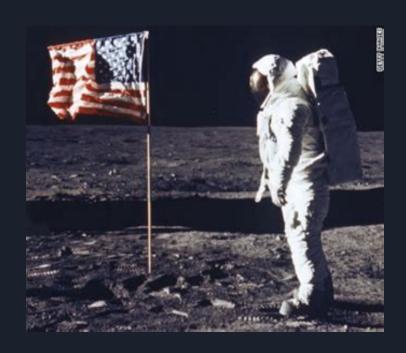
From WW2 to the Cold War

- With the war coming to a close, both USSR and USA rushed to berlin
- This is how berlin was split
- It was here that discoveries were made
- The Russians would recruit Sergei Korolev
- Wernher Von Braun would be recruited by the USA to lead their space program
- It was announced in 1955 that both countries would be launching satellites into space
- May 25th, 1961 JFK addressed congress claiming first on moon launching Apollo



The Race to the Moon

- Sputnik I first satellite Oct 4, 1957
- Explorer I first satellite Jan 31,1958
- Vostoka I first man April 1961
- Freedom VII first man May 1961
- John Glenn orbit February 1961
- Valentina Tereshkova orbit June 1961
- Apollo XI launched June 16th 1969
- Apollo XI lands June 20th 1969



SpaceX Information

The Founding and Mission of SpaceX

- SpaceX was founded by Elon Musk in 2002
- The original goal was to produce rockets at 3% of the cost then sell the rock to NASA or a private third party
- The second goal was to reduce transportation cost and to revolutionize access to space
- The main goal from this would be to colonize Mars by 2010 and save humanity from eventual extinction
- Hopefully the standard family would be able to journey to Mars for under \$230k
- It's third goal was to make rockets that were dependable, reusable, and energy friendly
- It's fourth goal was to "revitalize" the space industry and interest in space exploration
- It's fifth goal was to be to setup the highly debated StarLink program

SpaceX Statistics

- Had 18 manned launches
- Had 48 satellites
- Over 20k lbs of supplies to the ISS



SpaceX Rockets

- The 27 engine falcon heavy which can lift 14,000 pounds will hopefully be the rocket to transport people and supplies to Mars at 4:30
- In 2018 as a publicity stunt Musk launched his Cherry Red Tesla Roadster into space

Plan for Habitation of Mars

- Many plans expect a community in a matter of 30 to 50 years
- The UAE aim for a city of 600k by 2117
- In a ted talk astrobiologist Luis Darnell says it will take 20 yrs for the first man
- But 60 to 90 years for a substantial population
- However SpaceX is aiming for 10 launches by 2050 to start a city
- Musk hopes to start by 2022
- The ships would fly around earth then tankers would meet it to give it fuel for the way to Mars

Where is SpaceX now?

• SpaceX is currently working on it's StarLink program

Space Travel in 10 years

What the future holds is uncertain, thought Elon Musk does hope to have StarLink at a
 40% capacity and have a few small trips already conducted to Mars

Starlink

- As satellite internet currently works there is a satellite roughly 20,000 away from the nearest point on earth
- SpaceX plans to place 12,000 low orbit satellites roughly 200-400 miles away
- Elon Musk himself hopes to place an addition 30,000 to the original 12,000
- The estimated net gain would be in the tens of billions
- The main problems are that the satellites could run into a phenomenon known as the "kessler syndrome" where satellites would crash causing groups where other satellites would crash infinitely growing tho the chance is small



Contracts and Lawsuits

- Holds more than 60% of global commercial launch contracts
- Currently being sued in world watch

Elon Musk and Other Projects

The Early Life of Elon Musk

- Born June 28th 1971 in Pretoria,
 South Africa
- He was never a genius tho he was put into school a year early
- His parents were Errol Musk and Maye Haldeman
- He had two older brothers by the names of Kimbal and Tosca



The College Life of Elon Musk

- He emigrated to Canada when he was 17
- In 1990 he was able to enroll in the Queen's College in Kingston
- Later transferred to the University of Pennsylvania
- Graduated with a dual bachelors in econ and physics
- In 1995 to Stanford in Silicon Valley where he hoped to get a PhD in energy physics and work on energy storage technology for electric cars hoping to get a job at netscape
- "I can either [work on] electric vehicle technology and do my PhD at Stanford and watch the internet [grow] or I can put my studies on hold and try to be part of the internet"
- Two days after his first day at Stanford Elon Musk left and founded Zip2

Zip2

- With he previously mentioned computer programming skills
- He wanted to "get things done" on the internet
- It was at this time that he founded with his brother Kimbel the company Zip2 which would allow companies to convert their papers into an online format
- Still having 100k in college debt he wasn't able to rent an apartment and office so he rented an office
- A year later they started to gain minimal attention
- With minimal profits they gained more contracts and attention
- This cycle would continue for 4 years until they would gain a contract with the time and
- They would also try to merge with their competitor in April 1998 tho this didnt work out



XCard

- He saw that innovations in the financials sector of the internet hadn't been made
- This lead him to found x.com and the xcard
- His main strategy was to let the people recruit each other
- Over 1m users by the end of year 1
- Merged with Confinity in 2000 to form PayPal
- Was acquired by Ebay for 1.5b

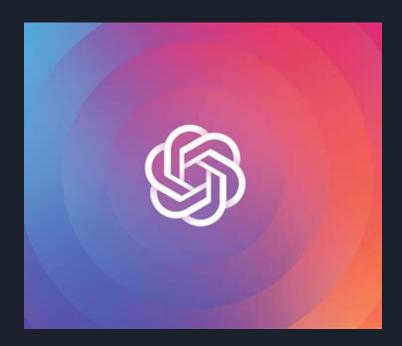
Tesla

- Contrary to the common misconception Musk didn't actually found Tesla
- Tesla was founded in 2003 by Marin Eberhard and Marc Tarpenning
- He took over as chairman for Tesla in 2004 after investing \$6.3m into Tesla



OpenAl

• In 2015 he co-founded OpenAl



Sources

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- Top Trending: https://www.youtube.com/watch?v=17Dh5ltQsHw
- NASA Channel: https://www.youtube.com/channel/UCLA_DiR1FfKNvjuUpBHmylQ
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- Wikipedia: https://en.wikipedia.org/wiki/Elon Musk