



# The Space Revolution

**Jim Cantrell**

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The Ones Crazy Enough  
To Think They Can Change The World

Are The Ones Who Do

# An Urge Lurking Deep In Our DNA





# Space Was Once The Sole Domain of Nation States



A dramatic scene of a rocket launch. A rocket is ascending vertically, leaving a bright blue and white plume of fire and smoke at its base. To the left of the rocket stands a tall, slender service tower with a flat top. The background is a sky filled with soft, wispy clouds, suggesting a dawn or dusk setting. In the lower right, there are some dark, silhouetted structures, possibly part of the launch complex. The overall atmosphere is one of power and technological achievement.

**But That's Changing Rapidly**



# Private Citizens Fund Mission to Mars

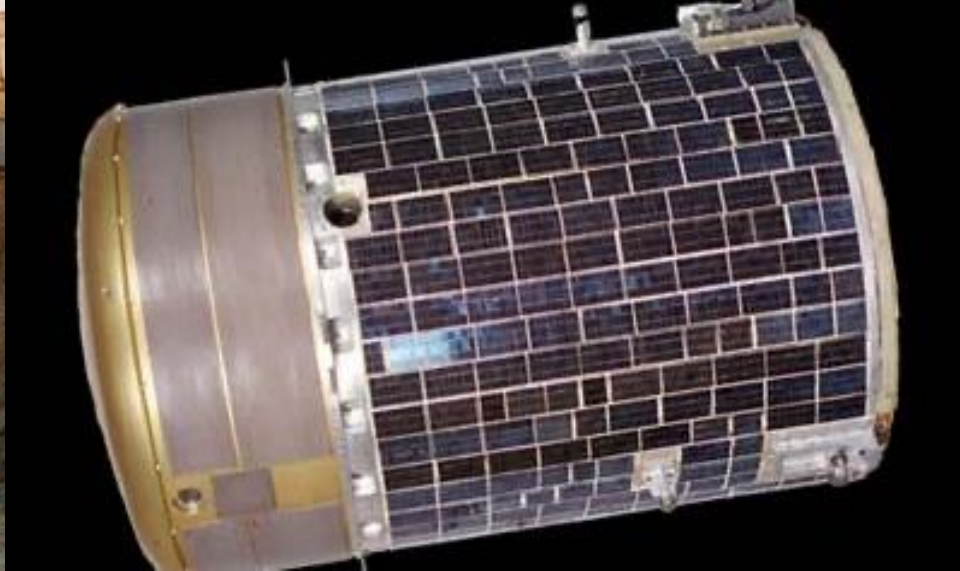
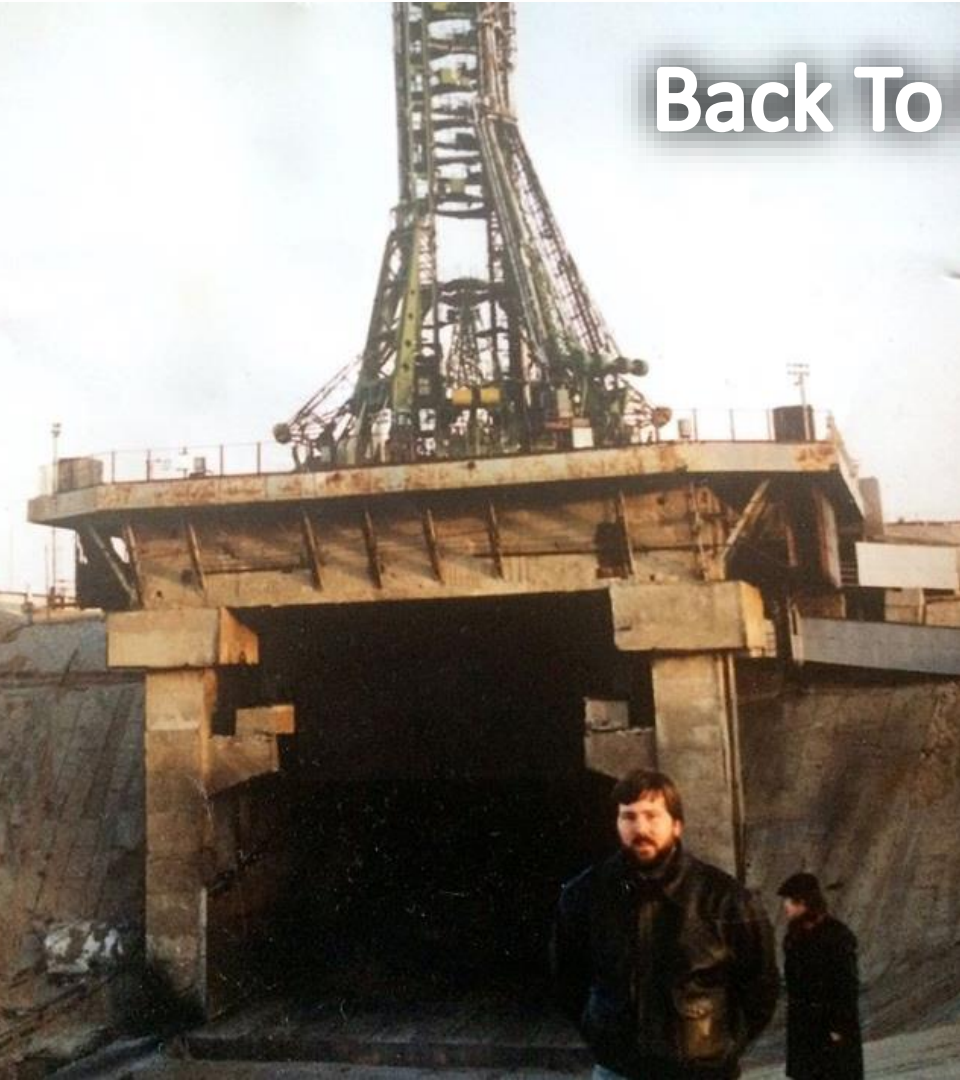


# And Then A Revolution Happened



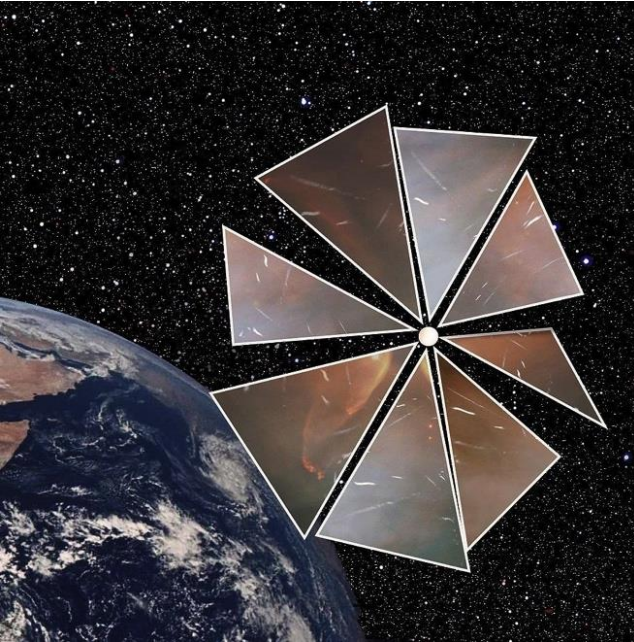


# Back To Russia





# We Pioneered Modern Era In Space



A&E funded world's first  
solar sail

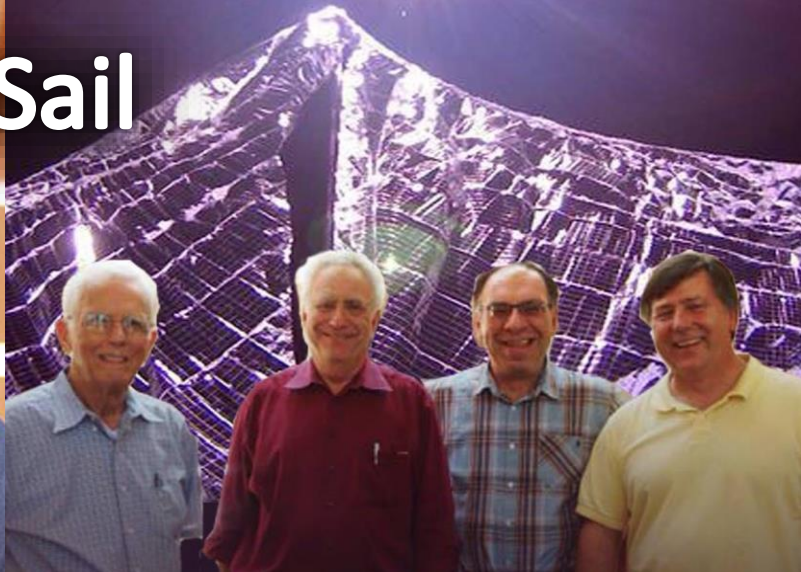


Built it with private funds  
.... In Russia



And launched out of  
Russian submarine

# And LightSail





# A Phone Call Changed Everything



.... 2001 driving home ....  
Minding my own business



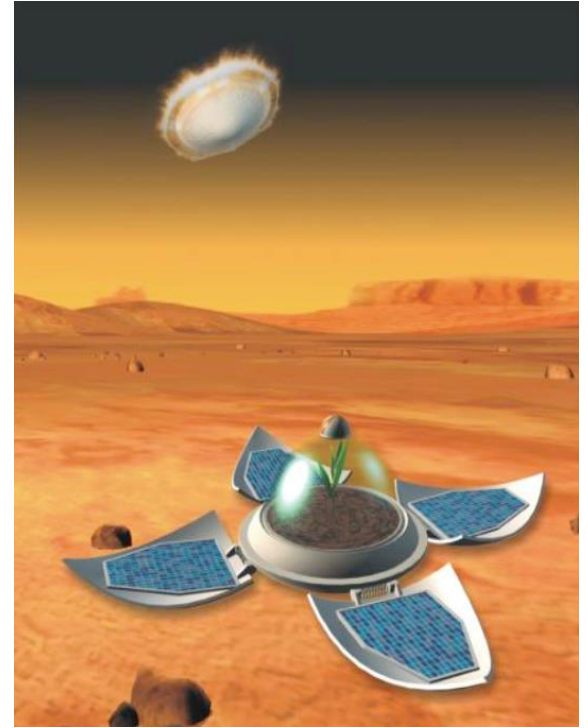
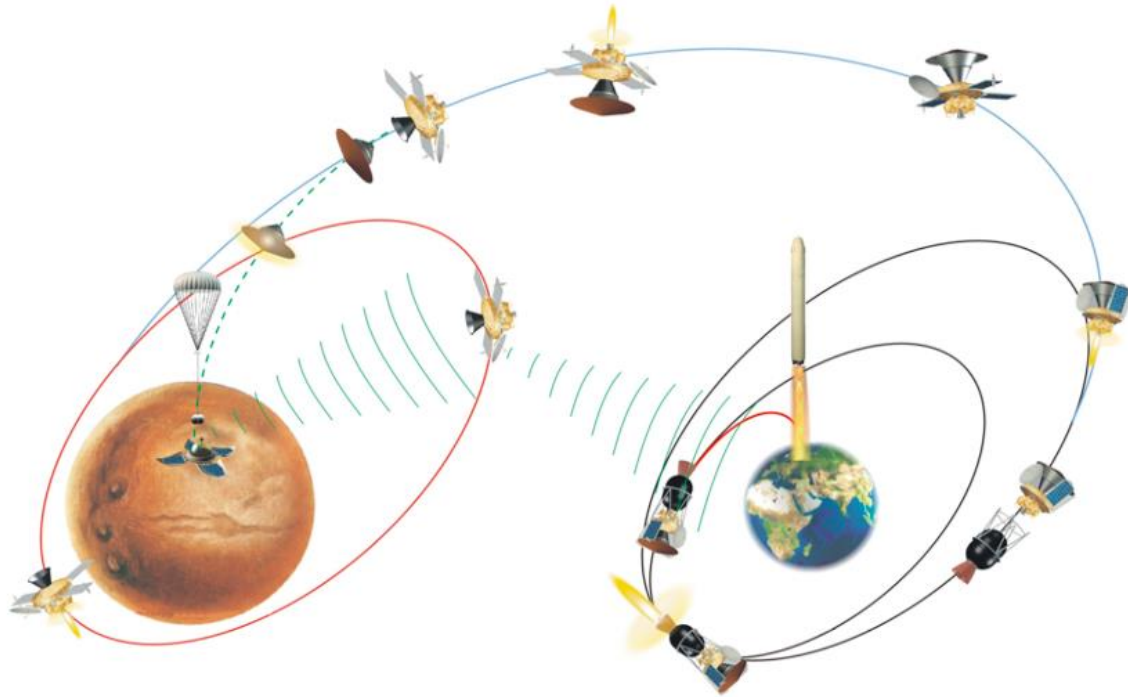
Phone call  
Strange accent



“Billionaire” wanting to  
start private space program



# Mars Oasis – The Original Musk Mission



# We Went To Moscow To Buy Rockets



# Meanwhile Some Misfits Showed Elon This





And He Imagined This





SpaceX Started Here

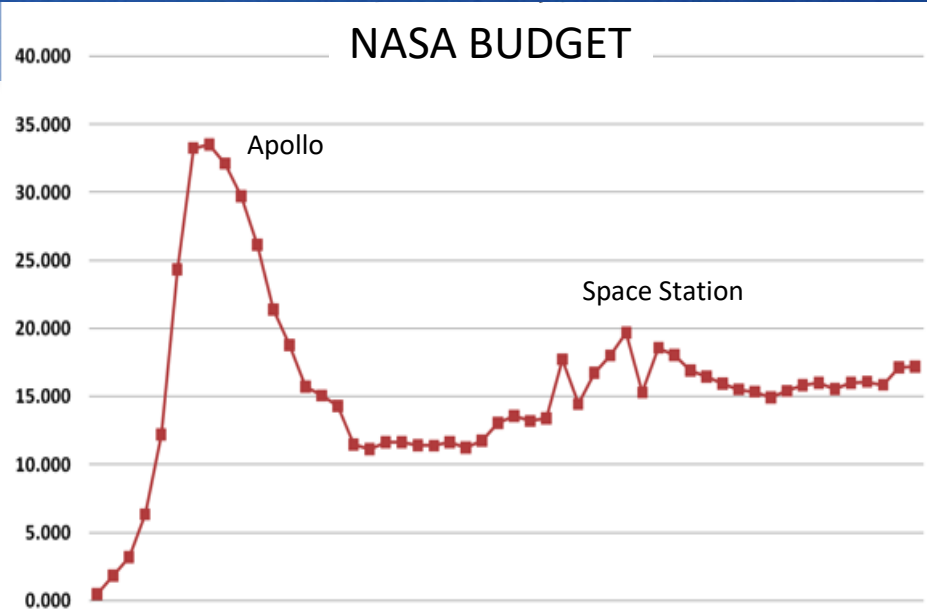


I Eventually Left To Go Do This .....





# Meanwhile NASA's Future Looked Grim



# Meanwhile Technology & Entrepreneurs Created A New Space Race









# Satellites Made By 100's





An aerial photograph of a city, likely New York City, showing a dense urban grid and a large river (the Hudson River) winding through it. The image is overlaid with white text. The text reads: "Creating Living Breathing Earth Image Cloud From Space".

# Creating Living Breathing Earth Image Cloud From Space



# DoD Used Those Small Sats To Monitor North Korea From Space



ASIA PACIFIC

*Tiny Satellites From Silicon Valley May Help Track North Korea Missiles*

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# Transforming Space As We Know It

Today

Hardware Centric + \$100M + Years

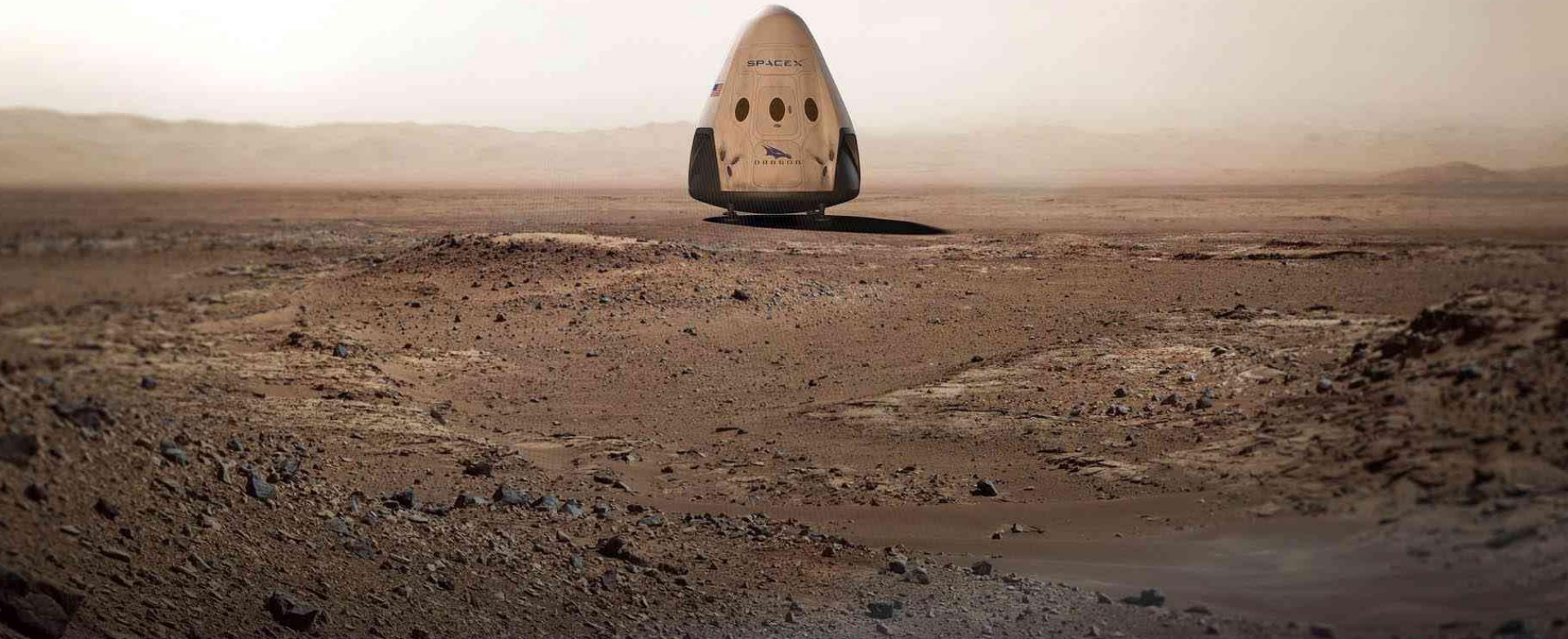


Tomorrow

Software Centric + <\$1M + Months



# The First Humans On Mars Will Come By Taxi





**Who Will Be The Most Famous Human Ever ?**



**And What Is Our Future In Space ?**





**Thank You !**