



1
00:00:00,000 --> 00:00:04,270
0...and liftoff! The final liftoff of Atlantis

2
00:00:07,460 --> 00:00:10,520
[cheers]

3
00:00:12,840 --> 00:00:16,170
The NASA you know today?

4
00:00:16,190 --> 00:00:21,300
It was actually founded after the launch of the first scientific mission in space.

5
00:00:21,320 --> 00:00:26,320
After the Soviet Union successfully launched the first satellite ever to orbit the Earth,

6
00:00:26,340 --> 00:00:31,430
the United States was under enormous pressure to pick up the pace of its own satellite program.

7
00:00:33,070 --> 00:00:37,850
Built by a team of more than 100 engineers, electronics experts and machinists

8
00:00:37,870 --> 00:00:41,820
working around the clock, Explorer 1 became the first American satellite

9
00:00:41,840 --> 00:00:44,520
to orbit the Earth just four months later.

10
00:00:51,790 --> 00:00:56,570
In reality, Explorer 1 was actually the U.S.'s second attempt to launch a satellite

11
00:00:56,590 --> 00:00:59,700
into space after Sputnik first took flight.

12
00:00:59,720 --> 00:01:02,510
Working in tandem, the Jet Propulsion Laboratory and

13
00:01:02,530 --> 00:01:06,350

the Army Ballistic Missile Agency had a rocket nearly ready to launch.

14

00:01:06,370 --> 00:01:11,150

But the Navy's Vanguard Project was given the first opportunity to send their rocket into space.

15

00:01:11,540 --> 00:01:15,920

Vanguard made it about two feet off the ground before exploding on the launch pad.

16

00:01:18,440 --> 00:01:23,830

The Eisenhower Administration, eager to ease the anxieties of a nation deep into the Cold War,

17

00:01:23,850 --> 00:01:28,840

gave JPL and the Army just ninety days to finish and launch Explorer 1.

18

00:01:34,900 --> 00:01:40,070

Think for a minute, what a different world it would be if Explorer 1 never happened.

19

00:01:40,090 --> 00:01:45,090

Say Vanguard successfully launched in December, the Explorer 1 may have been turned off.

20

00:01:45,110 --> 00:01:48,020

There may have been less pressure to create a separate space agency

21

00:01:48,040 --> 00:01:49,910

so we might not have NASA.

22

00:01:49,930 --> 00:01:53,650

There's a lot of chance involved in all this.

23

00:01:53,670 --> 00:01:59,060

Minutes click past relentlessly. The beams of powerful search lights light up the missile

24

00:01:59,080 --> 00:02:03,240

truly the star of one of the star of one of the greatest suspense dramas of our time.

25

00:02:18,730 --> 00:02:25,290

After Explorer 1 launched on January 31st, 1958, the Space Race officially began.

26

00:02:27,170 --> 00:02:29,400

Explorer 1 played a huge symbolic role

27

00:02:29,420 --> 00:02:32,230

in galvanizing America's legacy in space.

28

00:02:32,250 --> 00:02:36,130

But its true scientific mission was a milestone unto itself.

29

00:02:36,150 --> 00:02:40,540

The instruments on board made the first major scientific find of the Space Age:

30

00:02:40,560 --> 00:02:46,810

a belt of radiation around the planet linked to the very survival of life on Earth.

31

00:02:46,830 --> 00:02:49,340

With Explorer 1, science moved into space,

32

00:02:49,360 --> 00:02:54,650

and we can finally address questions scientifically we've asked for millennia.

33

00:02:54,670 --> 00:03:00,560

The launch of Explorer 1 sixty years ago opened the flood gates for future scientific missions,

34

00:03:00,580 --> 00:03:04,290

positioning the US to be a leader in space exploration.

35

00:03:07,560 --> 00:03:11,800

There are 18 missions observing Earth right now, while another 36 are

36

00:03:11,820 --> 00:03:14,830

currently exploring our solar system and beyond.

37

00:03:16,530 --> 00:03:19,820

To date, the United States has successfully sent a crewed mission to the moon,

38

00:03:19,840 --> 00:03:24,040

dispatched a spacecraft to each planetary body in our solar system,

39

00:03:24,060 --> 00:03:27,120

and reached interstellar space.

40

00:03:27,140 --> 00:03:29,920

Just this year alone, there are 8 missions launching

41

00:03:29,940 --> 00:03:35,160

all made possible by the collaborative efforts of NASA, its partner agencies like NOAA,

42

00:03:35,180 --> 00:03:37,480

and other space agencies around the world.

43

00:03:37,500 --> 00:03:43,970

Even though this started as a nation activity, we've brought the world along,

44

00:03:43,990 --> 00:03:48,440

and it's an international activity in which humanity together transcends

45

00:03:48,460 --> 00:03:54,820

the boundaries and really opens up views of the world in a way we could have never imagined.

46

00:03:55,670 --> 00:04:01,080

Less than a life time ago, humankind barely left the limits of our own atmosphere.

47

00:04:01,100 --> 00:04:04,320

Who then could have imagined that only sixty years later

48

00:04:04,340 --> 00:04:08,630

we would be touching the atmosphere of the sun, arriving at the most distant object

49

00:04:08,650 --> 00:04:11,640

humans have ever explored, and launching the world's most

50

00:04:11,660 --> 00:04:16,860

powerful telescope to get a glimpse of the first galaxies born after the Big Bang.

51

00:04:16,880 --> 00:04:20,520

Humanity's exploration of the universe will continue to expand,