



1
00:00:00,260 --> 00:00:04,250

"You always have the thought of, is this going to work?"

2
00:00:04,250 --> 00:00:08,300

You're sending a spacecraft millions and millions of miles away.

3
00:00:08,300 --> 00:00:15,080

It's mind-boggling the technology required to pull that off."

4
00:00:15,080 --> 00:00:20,020

And NASA did pull it off, with the launch of an unprecedented mission to the outskirts

5
00:00:20,020 --> 00:00:21,650

of our solar system.

6
00:00:21,650 --> 00:00:29,289

NASA's Cassini spacecraft arrived in Florida on April 21st, 1997, to begin months of processing

7
00:00:29,289 --> 00:00:33,840

before its launch in October to the distant planet Saturn.

8
00:00:33,840 --> 00:00:39,859

Cassini's mission was daring: go into orbit around the ringed planet, send the most detailed

9
00:00:39,859 --> 00:00:43,719

readings - and best pictures ever taken - back to Earth.

10
00:00:43,719 --> 00:00:50,989

Deploy a probe to the moon Titan, survey Saturn's other dozens of moons, and dive between the

11

00:00:50,989 --> 00:00:51,989
rings.

12
00:00:51,989 --> 00:00:54,850
"The size of it was impressive.

13
00:00:54,850 --> 00:01:01,379
To consider the size and how far it was going
and that it included a probe.

14
00:01:01,379 --> 00:01:03,109
That was impressive to me."

15
00:01:03,109 --> 00:01:08,830
But before it could set new landmarks for
science in space, Cassini had to make it safely

16
00:01:08,830 --> 00:01:13,460
off Earth riding atop an Air Force Titan IVB
rocket.

17
00:01:13,460 --> 00:01:17,800
Going to Saturn, where the sun is too distant
to feed solar panels enough energy for the

18
00:01:17,800 --> 00:01:24,570
spacecraft, Cassini would rely instead on
a plutonium-fueled generator called an RTG.

19
00:01:24,570 --> 00:01:31,240
"You had these RTG or nuclear sources that
you were going to mount up to the bottom,

20
00:01:31,240 --> 00:01:37,460
so the problem of maintaining everything cool,
you know, with these nuclear heaters, seeing

21
00:01:37,460 --> 00:01:43,670
that all come together for me was eye opening,
and it was a whole new ball game."

22

00:01:43,670 --> 00:01:48,140

Launch day would be the major test of the team that made Cassini ready for space.

23

00:01:48,140 --> 00:01:55,920

"When it came down to October 15th and that thing was launched, everybody breathed a sigh

24

00:01:55,920 --> 00:01:59,170

of relief, and just exhaled and relish in it."

25

00:01:59,170 --> 00:02:01,490

"The team had worked for years on it.

26

00:02:01,490 --> 00:02:07,200

When it all came off, it was just very, very satisfying that all these years of effort,