1
00:00:03,100 --> 00:00:11,290
This is the story of a Space Scientist. A Mathematician. A Physicist. A PIONEER.

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00:00:11,290 --> 00:00:17,130
In May of 2015, graduating students at West Virginia State University reflected on a trail

3
00:00:17,130 --> 00:00:21,680
that had been blazed for them by one of the University's most accomplished alumni.

4
00:00:21,680 --> 00:00:27,090
NASA and West Virginia State have something very important in common. Our legacies are

5
00:00:27,090 --> 00:00:32,920
woven together by a remarkable, pioneering American by the name of Katherine Johnson.

6
00:00:32,920 --> 00:00:38,670
On November 16, 2015, the White House announced that President Obama will be awarding Katherine

7
00:00:38,670 --> 00:00:44,430
Johnson the Presidential Medal of Freedom, our nation's highest civilian honor. In

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00:00:44,430 --> 00:00:48,629
their official announcement, the White House cited Katherine's influence on every major

9
00:00:48,629 --> 00:00:53,010
space program from Mercury through the Shuttle Program.

10
00:00:53,010 --> 00:00:58,460
During her remarkable three decades at NASA, Katherine calculated the launch window for

11
00:00:58,460 --> 00:01:04,449
America’s first human space flight. She
verified the calculations for John Glenn’s

12
00:01:04,449 --> 00:01:11,650
historical orbit. She calculated the trajectory
of Apollo 11’s flight to the moon, and worked

13
00:01:11,650 --> 00:01:17,320
on the plan that saved the Apollo 13 crew
and returned them safely to Earth.

14
00:01:17,320 --> 00:01:23,920
A native of White Sulfur Springs, West Virginia,
Katherine’s intelligence always outpaced

15
00:01:23,920 --> 00:01:25,000
her age.

16
00:01:25,000 --> 00:01:30,280
As a young child she used to follow her older
brother to the two-room building where he

17
00:01:30,280 --> 00:01:36,030
went to school. Her brother’s teacher was
amazed at her ability to read at such a young

18
00:01:36,030 --> 00:01:42,259
age and invited her to attend summer school.
Thus began a remarkable path of learning and

19
00:01:42,480 --> 00:01:44,120
discovery.

20
00:01:44,120 --> 00:01:49,460
I was always around people who were learning something I liked to learn.

21
00:01:49,460 --> 00:01:55,049
You learn if you want to, so you’ve got to want to learn.

22
00:01:55,049 --> 00:02:01,880
Katherine enrolled in high school at only
10 years old. She would often walk home with

23
00:02:01,880 --> 00:02:06,689
her principal after school and he'd point
to the constellations of the stars in the

24
00:02:06,689 --> 00:02:12,640
sky. Katherine never stopped looking upward
or reaching for new heights.

25
00:02:12,640 --> 00:02:20,230
Even in the face of personal adversity, Katherine
was determined to follow her dreams. In 1953,

26
00:02:20,230 --> 00:02:23,420
these dreams brought her to NASA's Langley
Research Center.

27
00:02:23,420 --> 00:02:28,239
Originally, Katherine was hired to join a
team that was nicknamed "computers who wear

28
00:02:28,239 --> 00:02:32,890
skirts." But when the opportunity came to
help out the all-male flight research team

29
00:02:32,890 --> 00:02:37,860
on what was supposed to be a temporary basis
she seized it – and so impressed her male

30
00:02:37,860 --> 00:02:44,700
colleagues they chose not to send her back.
She would stay at Langley and with NASA until

31
00:02:44,880 --> 00:02:46,160
her retirement in 1986.

32
00:02:46,160 --> 00:03:01,440
I didn’t feel the segregation at NASA because everybody there was doing research and you had a mission and

33
00:03:01,940 --> 00:03:06,790
Katherine Johnson helped write the first textbook
on space, and today she continues to rewrite

34
00:03:06,790 --> 00:03:14,890
history through an enduring impact she has
on space science, civil rights, and gender

35
00:03:14,890 --> 00:03:17,370
equality.

36
00:03:17,370 --> 00:03:21,209
When Katherine Johnson’s mother warned her
that she was moving to Virginia during a tough

37
00:03:21,209 --> 00:03:27,080
time in American history for black women and
men, she responded “Well, tell them I’m

38
00:03:27,080 --> 00:03:31,230
coming.” She helped lay the groundwork for
our Journey to Mars, so future generations