



# Apollo 15

1  
00:00:01,274 --> 00:00:02,623  
- [Man] Guidance, internal.

2  
00:00:02,623 --> 00:00:03,456  
13

3  
00:00:03,456 --> 00:00:04,289  
12

4  
00:00:04,289 --> 00:00:05,180  
11

5  
00:00:05,180 --> 00:00:06,290  
10

6  
00:00:06,290 --> 00:00:07,316  
9

7  
00:00:07,316 --> 00:00:08,149  
8

8  
00:00:08,149 --> 00:00:09,497  
Ignition sequence start.

9  
00:00:09,497 --> 00:00:10,639  
Engines on.

10  
00:00:10,639 --> 00:00:11,472  
5

11  
00:00:11,472 --> 00:00:12,305  
4

12  
00:00:12,305 --> 00:00:13,138  
3

13  
00:00:13,138 --> 00:00:13,971

2

14

00:00:13,971 --> 00:00:14,938

1

15

00:00:14,938 --> 00:00:18,497

(orchestral music)

16

00:00:18,497 --> 00:00:21,700

- Apollo 15 that was launched 50 years ago

17

00:00:21,700 --> 00:00:24,543

on July the 26th, 1971.

18

00:00:25,550 --> 00:00:27,190

It was a

19

00:00:27,190 --> 00:00:31,170

relatively big step from  
the previous three missions.

20

00:00:31,170 --> 00:00:32,960

As president Nixon stated,

21

00:00:32,960 --> 00:00:34,730

it would be the most ambitious

22

00:00:34,730 --> 00:00:37,963

scientific exploration  
in space at that time.

23

00:00:39,510 --> 00:00:42,193

The three astronauts were  
Commander David Scott,

24

00:00:43,260 --> 00:00:45,060

Command Module Pilot, Al Worden,

25

00:00:45,060 --> 00:00:47,880  
and Lunar Module Pilot, Jim Irwin.

26

00:00:47,880 --> 00:00:51,500  
The Lunar Rover was an  
electrically driven, bare bones car

27

00:00:53,020 --> 00:00:56,200  
to allow the astronauts to  
cover much greater distance

28

00:00:56,200 --> 00:00:58,090  
on the moon than than the previous

29

00:00:58,090 --> 00:01:00,017  
three flights could accomplish.

30

00:01:00,017 --> 00:01:02,708  
- [Man 2] This is really a  
rock and roll ride, isn't it?

31

00:01:02,708 --> 00:01:04,676  
Never been on a ride like this before.

32

00:01:04,676 --> 00:01:06,030  
Boy, oh boy.

33

00:01:06,030 --> 00:01:08,830  
- [John] It had a top speed  
of about eight miles an hour,

34

00:01:08,830 --> 00:01:10,310  
although I think in later flights,

35

00:01:10,310 --> 00:01:13,870  
they actually cranked that  
up to about 11 miles an hour.

36

00:01:13,870 --> 00:01:17,140

Scott and Irwin spent three days exploring

37

00:01:17,140 --> 00:01:20,193

the Apennine Hadley  
region in the Lunar Rover.

38

00:01:21,796 --> 00:01:25,735

There's actually a plaque  
on the Lunar Rover vehicle

39

00:01:25,735 --> 00:01:27,267

that was left on the moon that says

40

00:01:27,267 --> 00:01:29,537

"Man's first wheels on the moon."

41

00:01:30,975 --> 00:01:33,480

The heavy focus on science for Apollo 15

42

00:01:33,480 --> 00:01:35,163

was its primary feature.

43

00:01:36,820 --> 00:01:38,060

It was achieved two ways.

44

00:01:38,060 --> 00:01:40,040

One, of course, with  
the Lunar Rover vehicle

45

00:01:40,040 --> 00:01:42,870

on the moon to gather more lunar data.

46

00:01:42,870 --> 00:01:46,150

And secondly, the command service module

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00:01:46,150 --> 00:01:49,330

carried a SIM bay of  
scientific instruments

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00:01:49,330 --> 00:01:53,140

that allowed Al Worden to  
gather many photographs

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00:01:53,140 --> 00:01:55,340

and much data as he circled the moon

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00:01:55,340 --> 00:01:56,803

for his three days in orbit.

51

00:01:58,100 --> 00:02:02,410

One of the interesting  
experiments that Scott performed

52

00:02:02,410 --> 00:02:06,470

on the moon was to  
demonstrate Galileo's theory

53

00:02:06,470 --> 00:02:10,910

that two objects will  
always drop at the same rate

54

00:02:10,910 --> 00:02:12,210

in an airless environment.

55

00:02:13,583 --> 00:02:15,040

- [Man 2] Well I'll drop it.

56

00:02:15,040 --> 00:02:16,940

And I'll drop the two of them here

57

00:02:16,940 --> 00:02:20,090

and hopefully they'll hit  
the ground at the same time.

58

00:02:21,727 --> 00:02:22,977

How about that?

59

00:02:23,840 --> 00:02:25,960

- [John] Scott and Irwin,  
while they were doing

60

00:02:25,960 --> 00:02:28,700

their lunar rock studies on the moon,

61

00:02:28,700 --> 00:02:31,510

came across a single rock

62

00:02:31,510 --> 00:02:35,810

that was determined to be  
over 4 billion years old.

63

00:02:35,810 --> 00:02:38,400

It was called the Genesis Rock.

64

00:02:38,400 --> 00:02:41,330

Scott and Irwin spent  
over 18 hours on the moon,

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00:02:41,330 --> 00:02:46,050

the longest time of any of the  
Apollo missions at that time.

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00:02:46,050 --> 00:02:48,730

And they gathered 170 pounds

67

00:02:48,730 --> 00:02:51,740

of lunar material to bring back.

68

00:02:51,740 --> 00:02:55,283

They also set out the Apollo  
lunar experiments package.

69

00:02:56,450 --> 00:02:59,130

In a private moment, Commander David Scott

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00:02:59,130 --> 00:03:02,570

made a small aluminum  
statue of an astronaut

71

00:03:03,470 --> 00:03:05,100  
on the moon

72

00:03:05,100 --> 00:03:07,413  
to memorialize the 14 astronauts

73

00:03:07,413 --> 00:03:11,113  
that they died in the  
U.S. and Soviet programs.

74

00:03:13,370 --> 00:03:15,780  
The Lunar Rover had a TV camera on it,

75

00:03:15,780 --> 00:03:18,960  
and for the first time  
we were privileged to see

76

00:03:18,960 --> 00:03:21,973  
the ascent stage take off from the moon.

77

00:03:23,480 --> 00:03:26,230  
After Scott and Irwin were  
back in the command module,

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00:03:26,230 --> 00:03:29,240  
they continued to orbit  
the moon for two days,

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00:03:29,240 --> 00:03:30,950  
and during that time deployed

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00:03:30,950 --> 00:03:32,700  
the Particles and Fields satellite.

81

00:03:34,190 --> 00:03:35,930  
During the flight back to earth,

82

00:03:35,930 --> 00:03:39,280

one of the most important  
tasks required of the crew

83

00:03:39,280 --> 00:03:42,820

was for Al Worden to EVA  
from the command module

84

00:03:42,820 --> 00:03:45,670

and to capture the cassettes that recorded

85

00:03:45,670 --> 00:03:47,490

all the data that he'd accumulated

86

00:03:47,490 --> 00:03:49,520

during his orbits with the moon.

87

00:03:49,520 --> 00:03:54,284

That was the first time at  
197,000 miles from earth

88

00:03:54,284 --> 00:03:56,992

that man has ever done a deep space EVA.

89

00:03:56,992 --> 00:04:00,290

(orchestral music)

90

00:04:00,290 --> 00:04:05,250

During re-entry the burning  
reaction control system fuel

91

00:04:05,250 --> 00:04:08,280

burned through the risers  
of one of the shoots,

92

00:04:08,280 --> 00:04:11,040

and that shoot streamed  
and effectively became

93

00:04:11,040 --> 00:04:13,853

about one fifth of its normal capacity.

94

00:04:14,890 --> 00:04:17,673

Apollo 15 landed on two shoots.

95

00:04:18,750 --> 00:04:20,520

It was designed to do that,

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00:04:20,520 --> 00:04:24,413

but it did mean a hard  
landing, but a safe landing.

97

00:04:25,300 --> 00:04:28,270

Apollo 15 broke several records.

98

00:04:28,270 --> 00:04:30,870

The first use of the Lunar Rover,

99

00:04:30,870 --> 00:04:33,960

the first deep space walk by Al Worden,

100

00:04:33,960 --> 00:04:38,400

the heaviest payload in lunar  
orbit it as 107,000 pounds,

101

00:04:38,400 --> 00:04:42,343

and the longest crewed  
lunar mission of 295 hours.

102

00:04:43,580 --> 00:04:47,160

Apollo 15 achieved all of its objectives