



1
00:00:18,980 --> 00:00:19,100

Viking

2
00:00:19,100 --> 00:00:25,009

In exploration there are great moments of success, and moments of set-back. Lasting

3
00:00:25,009 --> 00:00:30,410

memories forever etched into our combined experience that forge a stronger resolve to

4
00:00:30,410 --> 00:00:34,280

reach new heights and explore the unknown.

5
00:00:34,280 --> 00:00:43,470

As we gaze off into the solar system, something in our humanity pushes us, to move forward.

6
00:00:43,470 --> 00:00:50,120

"... We began as wanderers, and we are wanderers still. We have lingered long enough on the

7
00:00:50,120 --> 00:01:05,899

shores of the cosmic ocean. We are ready at last to set sail for the stars." And liftoff the Atlas V with Curiosity. Seeking clues to the planetary puzzle about life

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00:01:05,899 --> 00:01:09,729

NASA has been on a journey of exploration for more than half a century.

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00:01:09,729 --> 00:01:12,100

A journey to Mars.

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00:01:12,100 --> 00:01:17,750

From Mariner to Phoenix from Curiosity to the MAVEN and beyond, we've placed the marks

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00:01:17,750 --> 00:01:27,530

of human exploration and ingenuity on and

around the red planet.

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00:01:27,530 --> 00:01:36,319
Forty years ago NASA's Viking Project found its place in history.

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00:01:36,319 --> 00:01:44,920
July 20th, 1976 Viking 1 was the first human probe to land on the surface, return images

14
00:01:44,920 --> 00:01:49,610
and data, and conduct science experiments on Mars.

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00:01:49,610 --> 00:01:55,649
Viking was a bold step for its time and a huge undertaking for NASA.

16
00:01:55,649 --> 00:02:00,679
NASA employees, contractors and industry across the country designed the elements of this

17
00:02:00,679 --> 00:02:04,229
project.

18
00:02:04,229 --> 00:02:09,220
Viking consisted of two identical spacecraft: with a payload of a lander and an orbiter

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00:02:09,220 --> 00:02:16,849
in each, Viking 1 and 2 were launched in August and September of 1975.

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00:02:16,849 --> 00:02:23,349
Each orbiter-lander pair flew together and entered Mars orbit; the landers then separated

21
00:02:23,349 --> 00:02:28,030
and descended to the planet's surface for their planned 90 day missions.

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00:02:28,030 --> 00:02:35,129

Viking 1 was originally targeted to land on July 4th, 1976, our nation's bicentennial

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00:02:35,129 --> 00:02:41,670

– but images from the orbiter showed the planned landing site to be too rocky. After

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00:02:41,670 --> 00:02:49,319

reconsidering the options a new site was selected and Viking 1 touched down on July 20th – 7

25

00:02:49,319 --> 00:02:54,730

years to the day after the Apollo 11 crew touched down on the Moon.

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00:02:54,730 --> 00:02:59,489

The landers took photographs and collected science data on the Martian surface.

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00:02:59,489 --> 00:03:06,200

The scientific consensus from the Viking experiments was that Mars is self-sterilizing due to solar

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00:03:06,200 --> 00:03:12,650

ultraviolet radiation, extreme dryness of the soil and the oxidizing nature of the soil

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00:03:12,650 --> 00:03:17,810

chemistry. The search for life on Mars came up empty.

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00:03:17,810 --> 00:03:25,409

But valuable data about Mars, both from the surface and from orbit was gathered. The orbiter-lander

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00:03:25,409 --> 00:03:31,719

duos out paced their 90-day missions with the four spacecraft operating between 2 and

32
00:03:31,719 --> 00:03:37,469
6 years. The Viking 1 lander was the longest-lived
of the group – making its final transmission

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00:03:37,469 --> 00:03:40,769
to Earth on
November 11th, 1982.

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00:03:40,769 --> 00:03:46,120
Today, our orbiters and rovers have changed
the way we look at Mars and continue to make

35
00:03:46,120 --> 00:03:52,670
unprecedented scientific discoveries while
also answering long-held questions about Mars

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00:03:52,670 --> 00:03:57,040
and its relationship to Earth, our solar system
and beyond

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00:03:57,040 --> 00:04:01,829
We are working hard to develop the systems
and technologies humankind will use to one

38
00:04:01,829 --> 00:04:06,599
day live and work on the Red Planet, and safely
return home.

39
00:04:06,599 --> 00:04:17,120
"If I have seen further, it is by standing
upon the shoulders of giants"

40
00:04:17,120 --> 00:04:23,590
The eventual first human footsteps on Mars
have as their stepping-stones the vital robot