



1
00:00:00,400 --> 00:00:06,105
[■]

2
00:00:06,138 --> 00:00:09,776
A lone explorer

3
00:00:09,809 --> 00:00:11,044
on a mission to reveal

4
00:00:11,077 --> 00:00:15,348
the grandeur of Saturn,
its rings and moons

5
00:00:15,381 --> 00:00:19,952
[■]

6
00:00:19,985 --> 00:00:22,055
After 20 years in space

7
00:00:22,088 --> 00:00:27,293
NASA's Cassini spacecraft
is running out of fuel.

8
00:00:27,326 --> 00:00:30,930
And so, to protect
moons of Saturn

9
00:00:30,963 --> 00:00:34,133
that could have conditions
suitable for life,

10
00:00:34,166 --> 00:00:36,269
a spectacular end
has been planned

11
00:00:36,302 --> 00:00:39,272
for this long-lived
traveler from Earth.

12
00:00:39,305 --> 00:00:42,108
Cassini's Grand Finale

13
00:00:42,141 --> 00:00:46,612
5 - 4 - 3 - 2 - 1

14
00:00:46,645 --> 00:00:47,780
[rockets roar]

15
00:00:47,813 --> 00:00:50,550
And liftoff of the
Cassini spacecraft

16
00:00:50,583 --> 00:00:52,952
on a billion-mile
trek to Saturn.

17
00:00:52,985 --> 00:00:54,520
We have cleared the tower.

18
00:00:54,553 --> 00:00:56,689
[mission audio]

19
00:00:56,722 --> 00:00:59,292
[■]

20
00:00:59,325 --> 00:01:02,361
In 2004, following
a 7-year journey

21
00:01:02,394 --> 00:01:03,996
through the solar system,

22
00:01:04,029 --> 00:01:05,932
Cassini arrived at Saturn.

23
00:01:05,965 --> 00:01:08,434
[mission audio]

24

00:01:08,467 --> 00:01:11,337

June 30, 2004 Saturn

Orbit Insertion

25

00:01:11,370 --> 00:01:13,773

The spacecraft carried a
passenger,

26

00:01:13,806 --> 00:01:16,109

the European Huygens probe --

27

00:01:16,142 --> 00:01:18,511

the first human-made
object to land

28

00:01:18,544 --> 00:01:21,714

on a world in the distant
outer solar system.

29

00:01:21,747 --> 00:01:23,249

January 14, 2005

30

00:01:23,282 --> 00:01:24,383

Huygens Probe landing on Titan

31

00:01:24,416 --> 00:01:26,619

For over a decade,

32

00:01:26,652 --> 00:01:29,122

Cassini has shared
the wonders of Saturn

33

00:01:29,155 --> 00:01:31,924

and its family of icy moons,

34

00:01:31,957 --> 00:01:34,427

taking us to astounding worlds

35

00:01:34,460 --> 00:01:36,095

where methane rivers run

36

00:01:36,128 --> 00:01:38,264

to a methane sea.

37

00:01:38,297 --> 00:01:40,333

Where jets of ice and gas

38

00:01:40,366 --> 00:01:42,668

are blasting material into space

39

00:01:42,701 --> 00:01:44,770

from a liquid water ocean

40

00:01:44,803 --> 00:01:47,773

that might harbor the
ingredients for life.

41

00:01:47,806 --> 00:01:50,042

[mission audio]

42

00:01:50,075 --> 00:01:51,744

And Saturn --

43

00:01:51,777 --> 00:01:54,647

a giant world ruled
by raging storms

44

00:01:54,680 --> 00:01:56,949

and delicate
harmonies of gravity.

45

00:01:56,982 --> 00:02:00,386

[■]

46

00:02:00,419 --> 00:02:05,458

Now, Cassini has one last,

daring assignment.

47

00:02:05,491 --> 00:02:07,527

April 26, 2017

48

00:02:07,560 --> 00:02:09,428

The grand finale begins.

49

00:02:09,461 --> 00:02:13,266

[■]

50

00:02:13,299 --> 00:02:17,637

Cassini's Grand Finale is

a brand new adventure.

51

00:02:17,670 --> 00:02:19,572

[■]

52

00:02:19,605 --> 00:02:22,008

Twenty-two dives
through the space

53

00:02:22,041 --> 00:02:24,744

between Saturn and its rings.

54

00:02:24,777 --> 00:02:28,281

[■]

55

00:02:28,314 --> 00:02:31,784

As it repeatedly braves
this unexplored region,

56

00:02:31,817 --> 00:02:33,686

Cassini seeks new insights

57

00:02:33,719 --> 00:02:35,721

about the origins of the rings,

58

00:02:35,754 --> 00:02:38,858
and the nature of the
planet's interior --

59
00:02:38,891 --> 00:02:41,894
closer to Saturn
than ever before.

60
00:02:41,927 --> 00:02:48,134
[■]

61
00:02:48,167 --> 00:02:49,869
On the final orbit,

62
00:02:49,902 --> 00:02:53,773
Cassini will plunge into Saturn

63
00:02:53,806 --> 00:02:56,642
fighting to keep its
antenna pointed at Earth

64
00:02:56,675 --> 00:02:59,278
as it transmits its farewell.

65
00:02:59,311 --> 00:03:01,581
[■]

66
00:03:01,614 --> 00:03:04,784
In the skies of Saturn,

67
00:03:04,817 --> 00:03:06,686
the journey ends,

68
00:03:06,719 --> 00:03:08,588
[■]

69
00:03:08,621 --> 00:03:13,793
as Cassini becomes part
of the planet itself.

70

00:03:13,826 --> 00:03:21,367

[■]

71

00:03:21,400 --> 00:03:23,369

September 15, 2017

72

00:03:23,402 --> 00:03:25,538

End of mission.

73

00:03:25,571 --> 00:03:33,779

[■]

74

00:03:33,812 --> 00:03:36,782

NASA Jet Propulsion Laboratory