

A dark, heavily cratered celestial body, likely Charon, with white text overlaid. The surface is covered in numerous impact craters of various sizes, some with distinct rims and shadows. The overall tone is a dark charcoal grey.

A 40th Anniversary Celebration  
of the Discovery of Pluto's Moon

CHARON

1  
00:00:00,770 --> 00:00:04,687  
(suspenseful orchestral music)

2  
00:00:13,605 --> 00:00:15,549  
Crowd: Six, five, four,

3  
00:00:15,549 --> 00:00:16,882  
three, two, one.

4  
00:00:18,270 --> 00:00:21,770  
Man: New Horizons and Pluto, 2015, woo!

5  
00:00:23,120 --> 00:00:25,940  
-: With the New Horizons going to the Pluto system,

6  
00:00:25,940 --> 00:00:27,300  
it really is a system.

7  
00:00:27,300 --> 00:00:30,330  
It's a little mini solar system in its own right.

8  
00:00:30,330 --> 00:00:31,910  
We have not only Pluto,

9  
00:00:31,910 --> 00:00:35,573  
but we also have a giant moon next to it, Charon.

10  
00:00:36,650 --> 00:00:38,640  
-: When we first saw Pluto,

11  
00:00:38,640 --> 00:00:40,060  
Clyde Tombaugh first saw it

12  
00:00:40,060 --> 00:00:41,840  
and brought it to the world's attention,

13  
00:00:41,840 --> 00:00:43,410

it was a mere dot.

14

00:00:43,410 --> 00:00:45,580

Liquid particles, they can move around.

15

00:00:45,580 --> 00:00:47,585

Like when you jump in the pool,

16

00:00:47,585 --> 00:00:48,590

you're able to swim around.

17

00:00:48,590 --> 00:00:51,210

It stayed a mere dot for a long time.

18

00:00:51,210 --> 00:00:52,360

In the 1970s,

19

00:00:52,360 --> 00:00:54,140

my stepfather, Jim Christy,

20

00:00:54,140 --> 00:00:55,623

kept looking at that dot.

21

00:01:32,390 --> 00:01:33,380

-: As he was looking at them,

22

00:01:33,380 --> 00:01:34,760

he noticed that there was a bump

23

00:01:34,760 --> 00:01:36,540

on one of the sides of Pluto.

24

00:01:36,540 --> 00:01:39,163

He noticed that this bump seemed to move.

25

00:01:50,860 --> 00:01:52,730

-: He was very surprised.

26

00:01:52,730 --> 00:01:54,470

And then after the surprise,

27

00:01:54,470 --> 00:01:56,950

he got a little worried.

28

00:01:56,950 --> 00:01:58,180

Was he seeing things

29

00:01:58,180 --> 00:02:00,723

or was he actually seeing what he thought he saw?

30

00:02:01,620 --> 00:02:03,770

By looking at that and factoring that in,

31

00:02:03,770 --> 00:02:07,140

he deduced that something must be moving around Pluto.

32

00:02:07,140 --> 00:02:09,020

And therefore, he was able to figure out

33

00:02:09,020 --> 00:02:10,393

that there was a satellite.

34

00:02:15,920 --> 00:02:18,490

-: Well I was at work when he called.

35

00:02:18,490 --> 00:02:21,510

And he said I think I'm gonna be famous.

36

00:02:21,510 --> 00:02:23,313

I think I've discovered a moon.

37

00:02:34,950 --> 00:02:37,110

-: And then comes the big waiting game,

38

00:02:37,110 --> 00:02:38,950

having to get more evidence for that.

39

00:02:38,950 --> 00:02:40,360

-: Jim did the measuring

40

00:02:40,360 --> 00:02:42,733

and Bob did the statistics.

41

00:02:43,991 --> 00:02:47,773

And they paralleled in their answers.

42

00:02:54,400 --> 00:02:58,180

He told me that he would try to name the moon after me

43

00:02:58,180 --> 00:02:59,760

if he could.

44

00:02:59,760 --> 00:03:02,679

And he just had made up the name Charon.

45

00:03:02,679 --> 00:03:04,800

Char is what my family call me.

46

00:03:04,800 --> 00:03:07,133

And he put the O-N onto the end of it.

47

00:03:19,197 --> 00:03:20,960

-: When he came up with that idea,

48

00:03:20,960 --> 00:03:22,380

he was a bit worried

49

00:03:22,380 --> 00:03:25,060

that maybe he bit off more than he could chew

50

00:03:25,060 --> 00:03:26,120

because he was worried about

51  
00:03:26,120 --> 00:03:27,980  
the International Astronomical Union

52  
00:03:27,980 --> 00:03:29,513  
approving something like that.

53  
00:03:35,200 --> 00:03:37,990  
-: He got up, he was thinking oh my gosh.

54  
00:03:37,990 --> 00:03:41,880  
I hoped I can name it after her, but I'm not sure.

55  
00:03:41,880 --> 00:03:46,313  
So anyway he went to find the dictionary.

56  
00:04:00,400 --> 00:04:04,820  
-: And so he got the dictionary out and he looked it up.

57  
00:04:04,820 --> 00:04:06,380  
And there it was in the dictionary.

58  
00:04:06,380 --> 00:04:10,930  
And it fit because it was within Greek mythology.

59  
00:04:10,930 --> 00:04:13,130  
And then it was accepted

60  
00:04:13,130 --> 00:04:15,420  
by the International Astronomical Union

61  
00:04:16,480 --> 00:04:19,360  
as Charon, the boatman that ferried the dead souls

62  
00:04:19,360 --> 00:04:21,360  
across the river Styx.

63  
00:04:21,360 --> 00:04:23,240

I just feel so proud.

64

00:04:23,240 --> 00:04:24,530

And like I say,

65

00:04:24,530 --> 00:04:26,780

a lot of husbands promise their wives the moon,

66

00:04:26,780 --> 00:04:28,350

but he delivered.

67

00:04:28,350 --> 00:04:30,080

-: And she has a big smile on her face

68

00:04:30,080 --> 00:04:31,103

when she says that.

69

00:04:34,690 --> 00:04:37,682

Man: Three, two, one.

70

00:04:37,682 --> 00:04:40,590

We have ignition and liftoff

71

00:04:40,590 --> 00:04:42,850

of NASA's New Horizons spacecraft

72

00:04:42,850 --> 00:04:46,550

on a decade long voyage to visit the planet Pluto

73

00:04:46,550 --> 00:04:47,383

and then beyond.

74

00:04:49,884 --> 00:04:53,967

(audience cheering and clapping)

75

00:04:57,220 --> 00:04:59,290

-: The whole world saw it for the first time.

76

00:04:59,290 --> 00:05:00,720

And all we had seen before

77

00:05:00,720 --> 00:05:03,850

was just a little fuzzy blur like.

78

00:05:03,850 --> 00:05:06,973

And to be able to see it it was just incredible.

79

00:05:12,800 --> 00:05:15,397

-: There's a giant chasm

80

00:05:15,397 --> 00:05:18,880

encircling the equator of Charon

81

00:05:18,880 --> 00:05:22,430

that we think is a remnant of

82

00:05:22,430 --> 00:05:24,140

a water ice ocean

83

00:05:24,140 --> 00:05:26,780

that was just underneath its surface

84

00:05:26,780 --> 00:05:27,730

in the early days,

85

00:05:27,730 --> 00:05:29,573

more than four billion years ago.

86

00:05:43,906 --> 00:05:45,900

-: It's kind of amazing when you think about it.