



1  
00:00:03,669 --> 00:00:02,230  
the landsat series of satellites were

2  
00:00:05,749 --> 00:00:03,679  
designed to observe the changing

3  
00:00:07,590 --> 00:00:05,759  
landscapes of our planet

4  
00:00:11,110 --> 00:00:07,600  
for those watching the launch of landsat

5  
00:00:12,470 --> 00:00:11,120  
5 on a clear mild march 1st in 1984 few

6  
00:00:14,390 --> 00:00:12,480  
could have imagined that the earth

7  
00:00:16,470 --> 00:00:14,400  
observing satellite with a three-year

8  
00:00:18,630 --> 00:00:16,480  
design life would still be in operation

9  
00:00:21,349 --> 00:00:18,640  
a quarter of a century later

10  
00:00:24,230 --> 00:00:21,359  
if someone had said

11  
00:00:26,630 --> 00:00:24,240  
let's have a designed life of 25 years

12  
00:00:28,870 --> 00:00:26,640  
they would have said it's impossible it

13  
00:00:31,830 --> 00:00:28,880

is impossible all of the engineers would

14

00:00:33,270 --> 00:00:31,840

have said that it's got to be

15

00:00:35,030 --> 00:00:33,280

the most

16

00:00:37,030 --> 00:00:35,040

incredible

17

00:00:38,869 --> 00:00:37,040

earth observing mission ever both on the

18

00:00:40,630 --> 00:00:38,879

quality of the data the global

19

00:00:42,630 --> 00:00:40,640

survey aspects of the data and the

20

00:00:46,310 --> 00:00:42,640

incredible longevity

21

00:00:49,270 --> 00:00:46,320

in 2009 on its 25th birthday landsat 5

22

00:00:51,029 --> 00:00:49,280

has traveled over 130 000 times around

23

00:00:53,270 --> 00:00:51,039

the earth something like three and a

24

00:00:56,709 --> 00:00:53,280

half million miles while gathering more

25

00:00:59,029 --> 00:00:56,719

than 700 000 images

26

00:00:59,910 --> 00:00:59,039

even today landsat 5 continues its

27

00:01:02,069 --> 00:00:59,920

mission

28

00:01:03,830 --> 00:01:02,079

sending back a steady stream of data an

29

00:01:05,030 --> 00:01:03,840

unparalleled history of our changing

30

00:01:06,950 --> 00:01:05,040

planet i

31

00:01:09,590 --> 00:01:06,960

i'm just forever enchanted with the

32

00:01:11,750 --> 00:01:09,600

images whether they're of deltas or the

33

00:01:13,190 --> 00:01:11,760

coastlines or

34

00:01:14,550 --> 00:01:13,200

the canyons

35

00:01:16,469 --> 00:01:14,560

it just is

36

00:01:19,270 --> 00:01:16,479

it's just beautiful

37

00:01:22,710 --> 00:01:19,280

we ought to tip our hat every day

38

00:01:25,109 --> 00:01:22,720

uh to the designers of landsat 5 and the

39

00:01:27,670 --> 00:01:25,119

people who made it well it's remarkable

40

00:01:28,789 --> 00:01:27,680

and there is certainly a component of

41

00:01:30,469 --> 00:01:28,799

luck

42

00:01:33,510 --> 00:01:30,479

involved in that but what i think the

43

00:01:35,429 --> 00:01:33,520

longevity really reflects is the

44

00:01:36,390 --> 00:01:35,439

commitment and the dedication of the

45

00:01:39,030 --> 00:01:36,400

skill

46

00:01:40,950 --> 00:01:39,040

of the team of people and the team of

47

00:01:42,550 --> 00:01:40,960

institutions that develop the system

48

00:01:44,710 --> 00:01:42,560

when you think about it this is a

49

00:01:46,469 --> 00:01:44,720

technology that was designed in the 70s

50

00:01:48,710 --> 00:01:46,479

that really has a

51  
00:01:50,469 --> 00:01:48,720  
throughput a capacity that equals that

52  
00:01:51,350 --> 00:01:50,479  
of Idcm which is going to be the next

53  
00:01:53,429 --> 00:01:51,360  
mission

54  
00:01:56,469 --> 00:01:53,439  
the flight ops team has done a fantastic

55  
00:01:58,550 --> 00:01:56,479  
job of making sure that every

56  
00:02:01,190 --> 00:01:58,560  
redundancy in every

57  
00:02:02,230 --> 00:02:01,200  
alternative route our mode of operation

58  
00:02:04,230 --> 00:02:02,240  
has been

59  
00:02:06,630 --> 00:02:04,240  
captured and utilized to its fullest

60  
00:02:09,350 --> 00:02:06,640  
extent in total the engineers who have

61  
00:02:12,070 --> 00:02:09,360  
kept landsat 5 operational have overcome

62  
00:02:13,830 --> 00:02:12,080  
22 separate mission anomalies they've

63  
00:02:16,150 --> 00:02:13,840

sustained landsat 5 through the failed

64

00:02:18,150 --> 00:02:16,160

launch of landsat 6 and the political

65

00:02:21,190 --> 00:02:18,160

reorganizations and delayed launch of

66

00:02:22,869 --> 00:02:21,200

landsat 7 making landsat 5's longevity

67

00:02:25,510 --> 00:02:22,879

crucial for the scientists who use its

68

00:02:28,790 --> 00:02:25,520

data it's the keystone

69

00:02:31,110 --> 00:02:28,800

of the mission because it lasted so long

70

00:02:32,229 --> 00:02:31,120

it actually got us through many bumps in

71

00:02:35,910 --> 00:02:32,239

the road

72

00:02:38,949 --> 00:02:35,920

in in this now 35 plus years of

73

00:02:41,030 --> 00:02:38,959

observations without landsat 5

74

00:02:43,990 --> 00:02:41,040

i'm not sure we would have had a landsat

75

00:02:45,030 --> 00:02:44,000

7 i'm a true believer though that uh

76

00:02:47,910 --> 00:02:45,040

that

77

00:02:50,630 --> 00:02:47,920

a good mission sells itself and one

78

00:02:51,910 --> 00:02:50,640

reason landsat 5 lived on was the need

79

00:02:54,309 --> 00:02:51,920

to have it

80

00:02:56,229 --> 00:02:54,319

and the engineer's motivation to keep it

81

00:02:58,630 --> 00:02:56,239

going and

82

00:02:59,509 --> 00:02:58,640

and i believe strongly that a big part

83

00:03:01,350 --> 00:02:59,519

of it

84

00:03:05,030 --> 00:03:01,360

was the mission

85

00:03:06,630 --> 00:03:05,040

that landsat holds and and that

86

00:03:08,630 --> 00:03:06,640

transcends

87

00:03:10,710 --> 00:03:08,640

a lot of things

88

00:03:13,910 --> 00:03:10,720

for all its achievements scientific and

89

00:03:15,910 --> 00:03:13,920

technical nasa and usgs wish a happy