1
00:00:11,350 --> 00:00:08,950
this is our home in the universe

2
00:00:13,669 --> 00:00:11,360
and these are satellites that keep an

3
00:00:15,430 --> 00:00:13,679
eye on our planet right now

4
00:00:17,990 --> 00:00:15,440
so why launch another earth observing

5
00:00:19,990 --> 00:00:18,000
satellite well spacecraft instruments

6
00:00:22,710 --> 00:00:20,000
just like anything else grow old they

7
00:00:24,390 --> 00:00:22,720
decay and they break not only do we need

8
00:00:26,230 --> 00:00:24,400
to replace the old instruments but we

9
00:00:28,390 --> 00:00:26,240
also need to improve what's out there in

10
00:00:30,150 --> 00:00:28,400
order to get more accurate observations

11
00:00:33,030 --> 00:00:30,160
that's why nasa and noaa are working

12
00:00:36,229 --> 00:00:33,040
together to build launch and operate a

13
00:00:37,830 --> 00:00:36,239

new polar orbiting satellite called npp

14
00:00:39,510 --> 00:00:37,840
this new satellite will collect critical

15
00:00:41,670 --> 00:00:39,520
measurements about our planet's

16
00:00:43,350 --> 00:00:41,680
atmosphere oceans and land surfaces and

17
00:00:45,910 --> 00:00:43,360
to understand how our climate is

18
00:00:48,150 --> 00:00:45,920
changing over long periods of time we

19
00:00:51,430 --> 00:00:48,160
need continuous observations of features

20
00:00:53,430 --> 00:00:51,440
like sea ice clouds and force what's

21
00:00:55,990 --> 00:00:53,440
really important is that npp continue

22
00:00:57,830 --> 00:00:56,000
adding to its two dozen plus key data

23
00:01:00,069 --> 00:00:57,840
records started by previous earth

24
00:01:01,750 --> 00:01:00,079
observing satellites these records are

25
00:01:04,149 --> 00:01:01,760
critical for understanding the health of

26
00:01:06,310 --> 00:01:04,159
our planet now as well as how things

27
00:01:08,710 --> 00:01:06,320
might change in the future

28
00:01:10,390 --> 00:01:08,720
and mpp will test five instruments in

29
00:01:13,510 --> 00:01:10,400
preparation for the new generation of

30
00:01:15,749 --> 00:01:13,520
weather satellites known as jpss

31
00:01:17,270 --> 00:01:15,759
the largest and most complex instrument

32
00:01:19,990 --> 00:01:17,280
is an imager that will monitor broad

33
00:01:21,590 --> 00:01:20,000
swaths of land oceans and air two other

34
00:01:23,270 --> 00:01:21,600
instruments will work together aid in

35
00:01:25,350 --> 00:01:23,280
weather forecasting by focusing on

36
00:01:27,590 --> 00:01:25,360
atmospheric temperatures and moisture

37
00:01:29,109 --> 00:01:27,600
profiles another instrument will monitor

38
00:01:31,190 --> 00:01:29,119

changes in the ozone layer which

39
00:01:32,230 --> 00:01:31,200
protects earth from harmful ultraviolet

40
00:01:34,469 --> 00:01:32,240
radiation

41
00:01:36,310 --> 00:01:34,479
mpp will also have an instrument that

42
00:01:38,710 --> 00:01:36,320
will focus on energy reflecting back

43
00:01:39,830 --> 00:01:38,720
from the clouds and the surface the data

44
00:01:42,069 --> 00:01:39,840
from this instrument will help

45
00:01:43,350 --> 00:01:42,079
understand the changes in climate over

46
00:01:45,670 --> 00:01:43,360
time

47
00:01:48,310 --> 00:01:45,680
that is a broad suite of observations

48
00:01:50,550 --> 00:01:48,320
and because oceans land atmosphere and

49
00:01:52,469 --> 00:01:50,560
living organisms are all connected if

50
00:01:54,469 --> 00:01:52,479
one changes it would affect the other

51
00:01:56,469 --> 00:01:54,479
elements in the earth system

52
00:01:58,469 --> 00:01:56,479
exactly and by making these individual

53
00:02:00,389 --> 00:01:58,479
measurements we're one step closer to

54
00:02:02,789 --> 00:02:00,399
understanding the big picture

55
00:02:05,190 --> 00:02:02,799
let's be clear that npp can't do it all

56
00:02:07,910 --> 00:02:05,200
npp is more focused on the here and now

57
00:02:09,990 --> 00:02:07,920
while users like nasa noaa and others

58
00:02:11,750 --> 00:02:10,000
will use complex computer models to

59
00:02:13,589 --> 00:02:11,760
predict tomorrow's weather over the

60
00:02:16,390 --> 00:02:13,599
course of climate change

61
00:02:18,949 --> 00:02:16,400
so npp has two specific goals one is

62
00:02:20,470 --> 00:02:18,959
deliver data for weather forecasting the

63
00:02:22,550 --> 00:02:20,480

other is to add new and better

64
00:02:24,630 --> 00:02:22,560
measurements to the decades of existing

65
00:02:26,309 --> 00:02:24,640
datasets which makes mpp the nation's

66
00:02:27,910 --> 00:02:26,319
first attempt to combine weather

67
00:02:29,750 --> 00:02:27,920
monitoring and climate observing on the

68
00:02:31,750 --> 00:02:29,760
same platform helping scientists