1
00:01:45,990 --> 00:01:43,030
the asteroid

2
00:01:48,710 --> 00:01:46,000
2012 da14 flying by the earth friday

3
00:01:52,310 --> 00:01:48,720
afternoon at 2 30 east coast time flies

4
00:01:54,389 --> 00:01:52,320
so far away more than 17 000 miles from

5
00:01:56,709 --> 00:01:54,399
the earth that no one on earth is in

6
00:02:01,109 --> 00:01:56,719
danger nor will any of our satellites be

7
00:02:05,590 --> 00:02:03,270
nasa has an extensive program that

8
00:02:08,550 --> 00:02:05,600
surveys the skies using ground-based

9
00:02:10,630 --> 00:02:08,560
telescopes and space-based telescopes to

10
00:02:13,190 --> 00:02:10,640
look for near-earth objects

11
00:02:15,350 --> 00:02:13,200
and we find these all the time and we

12
00:02:16,790 --> 00:02:15,360
study them we look at their orbits and

13
00:02:21,190 --> 00:02:16,800

we determine if they're potentially

14
00:02:26,630 --> 00:02:23,430
the planetary scientists are really

15
00:02:29,670 --> 00:02:26,640
excited about this passage of da14

16
00:02:32,390 --> 00:02:29,680
by the earth because as it flies by

17
00:02:35,270 --> 00:02:32,400
we're going to use our radars to bounce

18
00:02:36,470 --> 00:02:35,280
radio waves off this asteroid watch it

19
00:02:38,630 --> 00:02:36,480
spin

20
00:02:41,270 --> 00:02:38,640
look at the reflections and understand

21
00:02:46,150 --> 00:02:41,280
its size its shape and perhaps even a

22
00:02:50,630 --> 00:02:47,990
near earth objects that nasa has been

23
00:02:52,550 --> 00:02:50,640
studying do fly close to the earth

24
00:02:54,390 --> 00:02:52,560
this particular one is flying fairly

25
00:02:56,309 --> 00:02:54,400
close and once again it's we're at a

26
00:02:58,630 --> 00:02:56,319
very safe distance and allows us to

27
00:02:59,750 --> 00:02:58,640
study it in greater detail but this

28
00:03:04,949 --> 00:02:59,760
happens

29
00:03:09,110 --> 00:03:06,470
nasa is currently

30
00:03:12,949 --> 00:03:09,120
studying about 9000 of these near-earth

31
00:03:15,910 --> 00:03:12,959
asteroids about 1 800 of them are are

32
00:03:18,309 --> 00:03:15,920
fairly large and those are very of very

33
00:03:20,470 --> 00:03:18,319
particular interest to us we study their

34
00:03:23,190 --> 00:03:20,480
orbital motions and we understand where

35
00:03:27,350 --> 00:03:23,200
they'll be extrapolated well in it well

36
00:03:32,390 --> 00:03:29,430
the near-earth objects these asteroids

37
00:03:34,630 --> 00:03:32,400
that come by us that we see today

38
00:03:36,789 --> 00:03:34,640

actually originate in the asteroid belt

39
00:03:38,789 --> 00:03:36,799
we have a mission called dawn that's

40
00:03:40,869 --> 00:03:38,799
been in the asteroid belt now more than

41
00:03:42,470 --> 00:03:40,879
a year studying some of the largest

42
00:03:44,390 --> 00:03:42,480
asteroids around

43
00:03:46,229 --> 00:03:44,400
these are important objects because they

44
00:03:49,190 --> 00:03:46,239
are fundamental building blocks of

45
00:03:52,710 --> 00:03:49,200
planets so by studying asteroids we see

46
00:03:53,990 --> 00:03:52,720
what the early composition and the early

47
00:03:56,070 --> 00:03:54,000
accretion

48
00:04:00,869 --> 00:03:56,080
material of our early solar system that

49
00:04:05,750 --> 00:04:02,710
there's a very exciting event coming up

50
00:04:07,429 --> 00:04:05,760
uh today 2012 da14 is going to do a

51
00:04:10,149 --> 00:04:07,439
close flyby to the earth at a distance

52
00:04:11,910 --> 00:04:10,159
of about 17 000 miles the good news is

53
00:04:13,589 --> 00:04:11,920
that the earth is safe the international

54
00:04:18,789 --> 00:04:13,599
space station is safe and all of our

55
00:04:22,310 --> 00:04:20,550
nasa has an extensive near-earth

56
00:04:24,150 --> 00:04:22,320
observation program that's been scanning

57
00:04:25,909 --> 00:04:24,160
the skies for well over a decade to

58
00:04:27,830 --> 00:04:25,919
catalog the most potentially hazardous

59
00:04:29,430 --> 00:04:27,840
asteroids and to assess their impact

60
00:04:31,189 --> 00:04:29,440
threat this has been a phenomenally

61
00:04:32,790 --> 00:04:31,199
successful program and we've retired the

62
00:04:38,390 --> 00:04:32,800
majority of risk associated with an

63
00:04:43,110 --> 00:04:41,189

the flyby of asteroid 2012 da14 is a

64
00:04:44,550 --> 00:04:43,120
historic event never before in human

65
00:04:46,950 --> 00:04:44,560
history have we been able to see an

66
00:04:48,550 --> 00:04:46,960
object come this close of this size

67
00:04:50,070 --> 00:04:48,560
this is an attribute to uh the

68
00:04:51,909 --> 00:04:50,080
phenomenal success of our asteroid

69
00:04:53,510 --> 00:04:51,919
observation programs we've been scanning

70
00:04:55,270 --> 00:04:53,520
the skies for well over a decade to

71
00:04:56,469 --> 00:04:55,280
catalog these objects we're able to

72
00:04:58,550 --> 00:04:56,479
predict their orbits well into the