1
00:00:07,309 --> 00:00:05,059
the NEOWISE data have returned two very

2
00:00:10,009 --> 00:00:07,319
important findings first we've been able

3
00:00:11,330 --> 00:00:10,019
to determine that we've found 93% of all

4
00:00:12,620 --> 00:00:11,340
the near-earth asteroids that are out

5
00:00:15,110 --> 00:00:12,630
there that are larger than 1 kilometer

6
00:00:16,970 --> 00:00:15,120
and thus we've satisfied the goals of

7
00:00:19,429 --> 00:00:16,980
the congressionally mandated Spaceguard

8
00:00:20,990 --> 00:00:19,439
project we've also been able to tell

9
00:00:23,060 --> 00:00:21,000
that there are somewhat fewer near-earth

10
00:00:25,390 --> 00:00:23,070
asteroids that are larger than 100

11
00:00:27,439 --> 00:00:25,400
meters and were previously fought before

12
00:00:29,720 --> 00:00:27,449
surveys had indicated that there were

13
00:00:32,120 --> 00:00:29,730

about 36,000 near-earth objects that

14
00:00:33,530 --> 00:00:32,130
were larger than about 100 years with

15
00:00:34,700 --> 00:00:33,540
the Neo ice data we've been able to

16
00:00:38,600 --> 00:00:34,710
determine that there are really only

17
00:00:41,479 --> 00:00:38,610
about 20,500 in the total population so

18
00:00:44,330 --> 00:00:41,489
somewhat fewer however fewer does not

19
00:00:46,220 --> 00:00:44,340
mean none that leaves about 15,000

20
00:00:50,150 --> 00:00:46,230
asteroids larger than 100 years that

21
00:00:51,380 --> 00:00:50,160
remain to be found the NEOWISE survey

22
00:00:53,389 --> 00:00:51,390
that we've carried out could be viewed

23
00:00:55,340 --> 00:00:53,399
as a pilot project for a larger survey

24
00:00:57,020 --> 00:00:55,350
when we look at asteroids from far away

25
00:01:00,470 --> 00:00:57,030
using a telescope they just look like

26
00:01:02,599 --> 00:01:00,480
tiny dots so something that is small but

27
00:01:04,549 --> 00:01:02,609
very reflective could look the same as

28
00:01:06,469 --> 00:01:04,559
something that's large but very dark and

29
00:01:08,600 --> 00:01:06,479
to a visible telescope they will look

30
00:01:10,490 --> 00:01:08,610
alike but if you use an infrared

31
00:01:13,700 --> 00:01:10,500
telescope likewise we can tell the

32
00:01:15,499 --> 00:01:13,710
difference we've shown with NEOWISE that

33
00:01:16,940 --> 00:01:15,509
infrared surveys are an efficient and

34
00:01:19,039 --> 00:01:16,950
effective way of learning something

35
00:01:21,080 --> 00:01:19,049
about the true numbers sizes and

36
00:01:24,050 --> 00:01:21,090
reflectivity zuv astronauts that are out

37
00:01:26,240 --> 00:01:24,060
there this is pretty amazingly cool I am

38
00:01:27,890 --> 00:01:26,250

so pleased to finally see this answer

39
00:01:29,210 --> 00:01:27,900
after working on this for years and