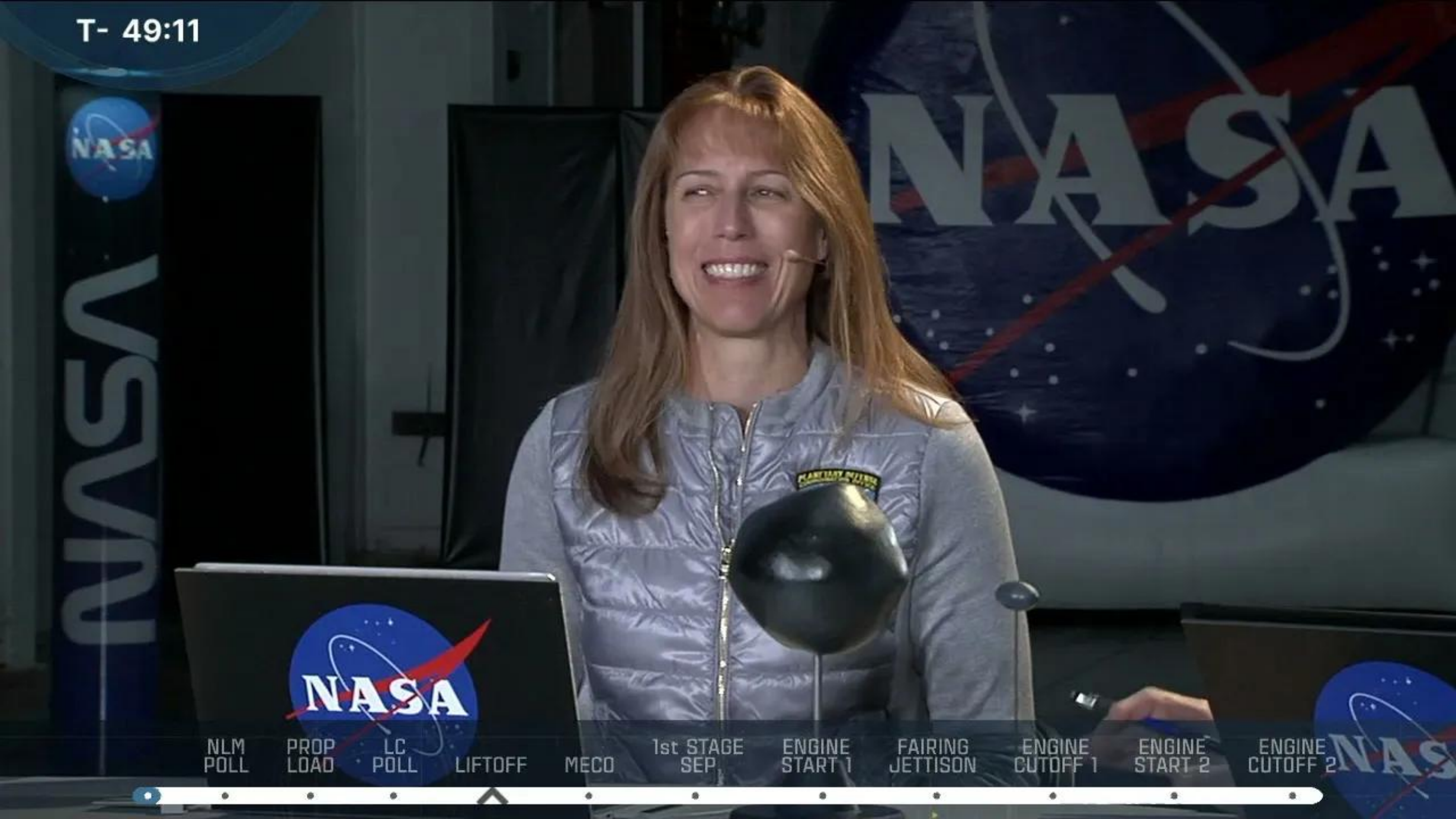
T- 49:11
NLM POLL
PROP LOAD
LC POLL
LIFTOFF
MECO
1st STAGE SEP
ENGINE START 1
FAIRING JETTISON
ENGINE CUTOFF 1
ENGINE START 2
ENGINE CUTOFF 2

1
00:00:05,990 --> 00:00:03,510
and in less than an hour this spacex

2
00:00:08,870 --> 00:00:06,000
rocket will launch the dart spacecraft

3
00:00:09,750 --> 00:00:08,880
on a six million mile head-on collision

4
00:00:12,070 --> 00:00:09,760
course

5
00:00:14,470 --> 00:00:12,080
with a near-earth asteroid

6
00:00:16,470 --> 00:00:14,480
welcome and thank you for joining us

7
00:00:18,470 --> 00:00:16,480
here inside the nasa hangar at the

8
00:00:20,390 --> 00:00:18,480
vandenberg space force base on the

9
00:00:23,029 --> 00:00:20,400
central coast of california i'm your

10
00:00:25,589 --> 00:00:23,039
host daryl nail and joining me is kelly

11
00:00:28,070 --> 00:00:25,599
fast she is a program scientist with the

12
00:00:29,669 --> 00:00:28,080
planetary defense coordination office

13
00:00:31,750 --> 00:00:29,679

welcome kelly it's great to have you

14
00:00:33,830 --> 00:00:31,760
here thank you daryl it's fabulous to be

15
00:00:36,229 --> 00:00:33,840
here uh helping to cheer dart off the

16
00:00:38,790 --> 00:00:36,239
planet now right at the top let's talk

17
00:00:40,869 --> 00:00:38,800
about this are there any asteroids

18
00:00:43,270 --> 00:00:40,879
threatening earth that we know of

19
00:00:45,350 --> 00:00:43,280
now thankfully there are no known

20
00:00:47,270 --> 00:00:45,360
asteroid impact threats to earth you

21
00:00:48,869 --> 00:00:47,280
keep tracking them we don't know of any

22
00:00:50,069 --> 00:00:48,879
it's the one that's that we don't know

23
00:00:52,389 --> 00:00:50,079
about that we're concerned about but

24
00:00:54,549 --> 00:00:52,399
that's why nasa surveys for an earth

25
00:00:56,389 --> 00:00:54,559
asteroid searches for them and does a

26
00:00:58,470 --> 00:00:56,399
test like dart to have that in the

27
00:01:01,029 --> 00:00:58,480
toolbox okay and this asteroid dart is

28
00:01:03,590 --> 00:01:01,039
going to hit what's the story there

29
00:01:05,509 --> 00:01:03,600
well the asteroid didymos does not pose

30
00:01:07,590 --> 00:01:05,519
an impact threat to earth it keeps its

31
00:01:10,710 --> 00:01:07,600
distance stays like it gets no closer

32
00:01:13,590 --> 00:01:10,720
than 3.7 million miles to earth's orbit

33
00:01:16,630 --> 00:01:13,600
but that's what makes it a fabulous test

34
00:01:19,510 --> 00:01:16,640
uh situation for dart we can go safely

35
00:01:22,070 --> 00:01:19,520
test and impact uh the kinetic impact

36
00:01:24,070 --> 00:01:22,080
technique uh and ditamos is the perfect

37
00:01:26,789 --> 00:01:24,080
laboratory for that okay and this

38
00:01:28,950 --> 00:01:26,799

spacecraft is is this something that

39
00:01:30,469 --> 00:01:28,960
could one day save the planet well

40
00:01:32,710 --> 00:01:30,479
what's nice about this i mean it's a

41
00:01:34,390 --> 00:01:32,720
nice mature technique kinetic impact you

42
00:01:36,230 --> 00:01:34,400
just impact something but now we're

43
00:01:37,270 --> 00:01:36,240
actually going to test it so this is

44
00:01:38,950 --> 00:01:37,280
going to be really good to have

45
00:01:41,429 --> 00:01:38,960
something in the toolbox that we've

46
00:01:44,550 --> 00:01:41,439
actually tried taking it from modeling

47
00:01:46,550 --> 00:01:44,560
to an actual test well it is certainly

48
00:01:49,030 --> 00:01:46,560
exciting just to hear you talk about it

49
00:01:51,429 --> 00:01:49,040
and when that moment happens in the fall

50
00:01:52,710 --> 00:01:51,439
of 2022 when that impact happens that's