1
00:00:08,470 --> 00:00:06,070
before the saturn v rocket successfully

2
00:00:11,030 --> 00:00:08,480
launched americans to the moon

3
00:00:12,950 --> 00:00:11,040
its tremendously powerful first stage

4
00:00:16,630 --> 00:00:12,960
was proven during testing here at nasa's

5
00:00:19,189 --> 00:00:16,640
marshall space flight center

6
00:00:21,269 --> 00:00:19,199
that was two decades ago but soon the

7
00:00:23,109 --> 00:00:21,279
roar of rocket engines will echo again

8
00:00:24,630 --> 00:00:23,119
from this massive concrete and steel

9
00:00:27,269 --> 00:00:24,640
test stand

10
00:00:29,189 --> 00:00:27,279
this historic site has now been restored

11
00:00:30,950 --> 00:00:29,199
into a hotbed of rocket engine research

12
00:00:33,190 --> 00:00:30,960
for the future it's called the

13
00:00:35,350 --> 00:00:33,200

technology test bed and it will give

14
00:00:37,270 --> 00:00:35,360
nasa engineers a chance to test theories

15
00:00:39,030 --> 00:00:37,280
and hardware aimed at improving the

16
00:00:41,190 --> 00:00:39,040
space shuttle main engine and the

17
00:00:42,869 --> 00:00:41,200
engines that will follow the first thing

18
00:00:45,270 --> 00:00:42,879
it's going to do is give us a much

19
00:00:47,590 --> 00:00:45,280
better understanding of what's happening

20
00:00:49,110 --> 00:00:47,600
inside the engine john mccarty is the

21
00:00:51,110 --> 00:00:49,120
director of the propulsion lab here at

22
00:00:52,950 --> 00:00:51,120
the marshall center it points out that

23
00:00:55,670 --> 00:00:52,960
on standard flight models of the shuttle

24
00:00:57,270 --> 00:00:55,680
engine there are 50 sensors on the test

25
00:00:59,590 --> 00:00:57,280
engine here there can be more than 12

26
00:01:01,189 --> 00:00:59,600
times that many the data generated

27
00:01:03,029 --> 00:01:01,199
during these tests will be used to

28
00:01:05,189 --> 00:01:03,039
improve the engines that will propel the

29
00:01:07,350 --> 00:01:05,199
nation's space program for decades to

30
00:01:10,469 --> 00:01:07,360
come the bottom line is going to be a

31
00:01:13,429 --> 00:01:10,479
reduction in the cost of the engines but

32
00:01:14,789 --> 00:01:13,439
by i project at least 50

33
00:01:17,190 --> 00:01:14,799
along with increased safety and

34
00:01:19,270 --> 00:01:17,200
reliability mccarty says that building a

35
00:01:21,749 --> 00:01:19,280
new test facility would have cost 10

36
00:01:23,670 --> 00:01:21,759
times as much as refurbishing this one

37
00:01:25,910 --> 00:01:23,680
soon this artifact of the past which

38
00:01:28,230 --> 00:01:25,920

helped put man on the moon will roar

39
00:01:30,710 --> 00:01:28,240
back to life to help nasa make manned

40
00:01:52,550 --> 00:01:30,720
flights safe and reliable far into the

41
00:01:52,560 --> 00:02:28,630
percent

42
00:02:33,110 --> 00:02:31,190
well i think if we look off five to ten

43
00:02:34,949 --> 00:02:33,120
years into the future

44
00:02:37,350 --> 00:02:34,959
we would expect that then

45
00:02:39,509 --> 00:02:37,360
that we could see engines that are 50

46
00:02:40,790 --> 00:02:39,519
percent of the cost of of these current

47
00:02:42,390 --> 00:02:40,800
engines

48
00:02:44,630 --> 00:02:42,400
that are safer and have higher

49
00:02:46,470 --> 00:02:44,640
reliability than what we have today and

50
00:02:49,030 --> 00:02:46,480
that's the whole thrust of the program