1
00:00:04,630 --> 00:00:02,389
hi i'm john coward at nasa's kennedy

2
00:00:06,470 --> 00:00:04,640
space center in florida i'm the deputy

3
00:00:09,830 --> 00:00:06,480
mission manager for the aries 1x flight

4
00:00:12,390 --> 00:00:09,840
test ares 1x or simply 1x as we call it

5
00:00:14,070 --> 00:00:12,400
is like a midterm exam for us the flight

6
00:00:15,509 --> 00:00:14,080
test is designed to show us whether we

7
00:00:17,109 --> 00:00:15,519
are on the right track in building the

8
00:00:17,990 --> 00:00:17,119
next system to lift astronauts into

9
00:00:19,349 --> 00:00:18,000
space

10
00:00:20,790 --> 00:00:19,359
now there won't be any astronauts on

11
00:00:22,950 --> 00:00:20,800
board the one x when it lifts off from

12
00:00:24,870 --> 00:00:22,960
pad 39b here at kennedy but our

13
00:00:26,230 --> 00:00:24,880

attention to every detail will be

14
00:00:29,750 --> 00:00:26,240
intense

15
00:00:32,069 --> 00:00:29,760
the ares 1x is 327 feet tall and uses a

16
00:00:33,510 --> 00:00:32,079
solid rocket booster as a first stage

17
00:00:35,910 --> 00:00:33,520
but where later rockets will have an

18
00:00:38,549 --> 00:00:35,920
operational upper stage and apollo style

19
00:00:41,030 --> 00:00:38,559
spacecraft atop the booster the ares 1x

20
00:00:42,950 --> 00:00:41,040
uses weight simulators instead

21
00:00:44,950 --> 00:00:42,960
the idea is to test the ability of the

22
00:00:47,029 --> 00:00:44,960
booster rocket to lift the upper stage

23
00:00:49,670 --> 00:00:47,039
and spacecraft the fight also will show

24
00:00:51,350 --> 00:00:49,680
us whether it will separate safely

25
00:00:53,590 --> 00:00:51,360
so where does onex fit

26
00:00:55,189 --> 00:00:53,600
basically it's the most detailed test we

27
00:00:56,229 --> 00:00:55,199
have attempted in the program to this

28
00:00:57,990 --> 00:00:56,239
point

29
00:00:59,750 --> 00:00:58,000
there are thousands of engineers

30
00:01:01,670 --> 00:00:59,760
technicians and others working at nasa

31
00:01:03,590 --> 00:01:01,680
centers around the united states on the

32
00:01:05,189 --> 00:01:03,600
effort

33
00:01:07,270 --> 00:01:05,199
so we know there are a lot of challenges

34
00:01:09,190 --> 00:01:07,280
with this areas 1x flight test that's

35
00:01:10,230 --> 00:01:09,200
all right nasa's launched plenty of

36
00:01:11,590 --> 00:01:10,240
firsts

37
00:01:14,230 --> 00:01:11,600
although nasa has been launching

38
00:01:16,230 --> 00:01:14,240

astronauts into space since 1961 the

39
00:01:17,990 --> 00:01:16,240
space agency started with rockets that

40
00:01:19,830 --> 00:01:18,000
did not carry anyone

41
00:01:21,590 --> 00:01:19,840
after all there were no sophisticated

42
00:01:23,350 --> 00:01:21,600
computers that could accurately predict

43
00:01:26,070 --> 00:01:23,360
exactly what would happen after engines

44
00:01:28,469 --> 00:01:26,080
were ignited so engineers tested rockets

45
00:01:30,469 --> 00:01:28,479
often to see how they'd work sometimes

46
00:01:32,310 --> 00:01:30,479
the design worked well

47
00:01:33,830 --> 00:01:32,320
sometimes they didn't

48
00:01:35,990 --> 00:01:33,840
but each launch was a learning

49
00:01:37,670 --> 00:01:36,000
experience and researchers quickly

50
00:01:39,830 --> 00:01:37,680
learned from the problems and advanced

51
00:01:43,030 --> 00:01:39,840
each design until they were comfortable

52
00:01:45,270 --> 00:01:43,040
enough to start putting payloads aboard

53
00:01:48,310 --> 00:01:45,280
nasa sent its first satellite into orbit

54
00:01:51,270 --> 00:01:48,320
explorer 1 in 1958 the rockets weren't

55
00:01:53,350 --> 00:01:51,280
perfect yet but they made progress

56
00:01:56,230 --> 00:01:53,360
alan shepard became the first american

57
00:01:59,030 --> 00:01:56,240
in space in 1961 riding in a mercury

58
00:02:00,870 --> 00:01:59,040
capsule perched on a redstone rocket

59
00:02:02,469 --> 00:02:00,880
more successes followed including the

60
00:02:06,310 --> 00:02:02,479
launch of the first american to orbit

61
00:02:07,990 --> 00:02:06,320
the earth john glenn in february 1962

62
00:02:09,830 --> 00:02:08,000
each launch added to the record of

63
00:02:12,309 --> 00:02:09,840

achievement and soon it was time for

64
00:02:13,750 --> 00:02:12,319
nasa to test its largest rocket ever the

65
00:02:15,990 --> 00:02:13,760
saturn v

66
00:02:18,390 --> 00:02:16,000
confident of the design engineers took

67
00:02:20,470 --> 00:02:18,400
the unusual step for the time of testing

68
00:02:22,630 --> 00:02:20,480
the rocket and its three stages all at

69
00:02:24,070 --> 00:02:22,640
once the first time up

70
00:02:25,990 --> 00:02:24,080
the test launches were loaded with

71
00:02:27,990 --> 00:02:26,000
instruments and cameras that was in case

72
00:02:29,350 --> 00:02:28,000
something unexpected happened engineers

73
00:02:31,910 --> 00:02:29,360
could have something to evaluate the

74
00:02:33,750 --> 00:02:31,920
problem for the saturn 5 the cameras

75
00:02:36,790 --> 00:02:33,760
returned some of the most spectacular

76
00:02:38,869 --> 00:02:36,800
images of the historic apollo program

77
00:02:40,710 --> 00:02:38,879
saturn's successes were still being

78
00:02:42,949 --> 00:02:40,720
recorded as nasa engineers set about

79
00:02:45,110 --> 00:02:42,959
developing its replacement a reusable

80
00:02:47,110 --> 00:02:45,120
craft that glided back to earth

81
00:02:48,070 --> 00:02:47,120
that design would become the space

82
00:02:50,070 --> 00:02:48,080
shuttle

83
00:02:52,790 --> 00:02:50,080
just like with the previous rockets the

84
00:02:54,229 --> 00:02:52,800
shuttle underwent extensive testing

85
00:02:56,150 --> 00:02:54,239
the glide back to earth had to be

86
00:02:57,910 --> 00:02:56,160
evaluated firsthand

87
00:03:00,229 --> 00:02:57,920
in a break with previous crude

88
00:03:01,670 --> 00:03:00,239

spacecraft though the first complete

89
00:03:03,430 --> 00:03:01,680
shuttle stack was launched with

90
00:03:05,589 --> 00:03:03,440
astronauts on board

91
00:03:07,990 --> 00:03:05,599
john young and robert crippen put the

92
00:03:12,309 --> 00:03:08,000
shuttle design through its first paces

93
00:03:14,470 --> 00:03:12,319
in space during sts-1 in april 1981.

94
00:03:16,790 --> 00:03:14,480
now with those experiences of the past

95
00:03:19,270 --> 00:03:16,800
as a guide the stage has been set for

96
00:03:20,949 --> 00:03:19,280
the ares 1x flight test

97
00:03:22,949 --> 00:03:20,959
we've stacked the experimental rocket

98
00:03:25,270 --> 00:03:22,959
carefully and already have run a number

99
00:03:27,509 --> 00:03:25,280
of tests on it as it stood high inside

100
00:03:29,030 --> 00:03:27,519
kennedy's vehicle assembly building

101
00:03:30,869 --> 00:03:29,040
and we've modified one of the launch

102
00:03:32,550 --> 00:03:30,879
pads that used to host shuttles and

103
00:03:34,149 --> 00:03:32,560
apollo rockets

104
00:03:36,309 --> 00:03:34,159
just like we've done since the first

105
00:03:38,390 --> 00:03:36,319
saturn 5 launch we used a crawler

106
00:03:40,070 --> 00:03:38,400
transporter to carefully move 1x out to

107
00:03:42,550 --> 00:03:40,080
the launch pad

108
00:03:44,710 --> 00:03:42,560
in short we at nasa know we have a big

109
00:03:46,470 --> 00:03:44,720
test coming up and we are ready for it

110
00:03:48,710 --> 00:03:46,480
this is an exciting time for us because

111
00:03:50,309 --> 00:03:48,720
it is an early payoff for a significant

112
00:03:52,229 --> 00:03:50,319
amount of work we've already carried out

113
00:03:53,589 --> 00:03:52,239

on this program it's also an exciting

114
00:03:55,670 --> 00:03:53,599
time for the nation because this new

115
00:03:57,270 --> 00:03:55,680
rocket will give us a fresh look at

116
00:03:59,429 --> 00:03:57,280
possible ways to reach beyond earth

117
00:04:01,270 --> 00:03:59,439
orbit thanks for joining us today from