
NORTHROP
GRUMMAN

1
00:00:00,333 --> 00:00:08,408
[music]

2
00:00:08,408 --> 00:00:09,075
>> Hi, everybody,

3
00:00:09,075 --> 00:00:10,744
and welcome to the 2020

4
00:00:10,744 --> 00:00:12,912
NASA Student Launch Awards.

5
00:00:12,912 --> 00:00:14,280
This year, I greatly missed

6
00:00:14,280 --> 00:00:15,648
seeing you all in person

7
00:00:15,648 --> 00:00:16,649
and being able to see

8
00:00:16,649 --> 00:00:18,251
your projects and efforts

9
00:00:18,251 --> 00:00:19,719
culminate on launch day.

10
00:00:19,719 --> 00:00:20,854
I know you've all put in

11
00:00:20,854 --> 00:00:22,455
a lot of hard work,

12
00:00:22,455 --> 00:00:23,123
and I trust you

13
00:00:23,123 --> 00:00:24,157

enjoyed the project

14
00:00:24,157 --> 00:00:25,959
and learned a lot along the way.

15
00:00:25,959 --> 00:00:27,460
I'm proud that Northrop Grumman

16
00:00:27,460 --> 00:00:28,862
has continued to be

17
00:00:28,862 --> 00:00:30,530
the premier corporate sponsor

18
00:00:30,530 --> 00:00:31,698
of Student Launch

19
00:00:31,698 --> 00:00:33,199
for 13 years now.

20
00:00:33,199 --> 00:00:34,534
And it's been my great privilege

21
00:00:34,534 --> 00:00:35,735
to participate in many

22
00:00:35,735 --> 00:00:38,138
rocket fairs and launch events.

23
00:00:38,138 --> 00:00:39,406
It's really an exciting time

24
00:00:39,406 --> 00:00:40,473
to partner with NASA

25
00:00:40,473 --> 00:00:41,207
as we look forward

26
00:00:41,207 --> 00:00:42,675
to the first launch of NASA's

27
00:00:42,675 --> 00:00:44,077
space launch system,

28
00:00:44,077 --> 00:00:45,111
the heavy lift rocket,

29
00:00:45,111 --> 00:00:46,780
and the Orion Spacecraft.

30
00:00:46,780 --> 00:00:48,715
It'll happen next year.

31
00:00:48,715 --> 00:00:50,483
This first launch, Artemis I,

32
00:00:50,483 --> 00:00:51,951
paves the way for Americans

33
00:00:51,951 --> 00:00:53,153
to have boots on the moon

34
00:00:53,153 --> 00:00:55,054
in 2024.

35
00:00:55,054 --> 00:00:56,156
In preparation for that

36
00:00:56,156 --> 00:00:57,524
first flight, Northrop Grumman

37
00:00:57,524 --> 00:00:59,292
is shipping our booster segments

38
00:00:59,292 --> 00:01:00,960

to Kennedy Space Center

39
00:01:00,960 --> 00:01:02,095
where they'll be processed

40
00:01:02,095 --> 00:01:03,596
and stacked into the twin

41
00:01:03,596 --> 00:01:05,465
five segment boosters

42
00:01:05,465 --> 00:01:07,734
that will provide more than 75%

43
00:01:07,734 --> 00:01:09,235
of the initial thrust

44
00:01:09,235 --> 00:01:10,270
for the rocket's escape

45
00:01:10,270 --> 00:01:11,938
from Earth's gravity.

46
00:01:11,938 --> 00:01:13,206
The core stage of the rocket

47
00:01:13,206 --> 00:01:14,374
is at Stennis

48
00:01:14,374 --> 00:01:15,341
and is in preparation

49
00:01:15,341 --> 00:01:16,376
for green run testing

50
00:01:16,376 --> 00:01:17,277
that's critical to

51
00:01:17,277 --> 00:01:18,978
this first launch.

52
00:01:18,978 --> 00:01:20,447
The Orion spacecraft returned

53
00:01:20,447 --> 00:01:21,781
to Kennedy after completing

54
00:01:21,781 --> 00:01:22,982
environmental testing

55
00:01:22,982 --> 00:01:24,250
at Plumbrook Station

56
00:01:24,250 --> 00:01:25,452
back in March.

57
00:01:25,452 --> 00:01:26,352
It is nearly ready to

58
00:01:26,352 --> 00:01:27,353
go into storage until

59
00:01:27,353 --> 00:01:28,955
the core stage is ready.

60
00:01:28,955 --> 00:01:29,956
Now having participated

61
00:01:29,956 --> 00:01:31,558
in the NASA Student Launch,

62
00:01:31,558 --> 00:01:32,725
you're very familiar with

63
00:01:32,725 --> 00:01:34,060

what it takes to design,

64
00:01:34,060 --> 00:01:35,462
to manufacture,

65
00:01:35,462 --> 00:01:36,796
and to launch a rocket.

66
00:01:36,796 --> 00:01:38,131
And you know there are many

67
00:01:38,131 --> 00:01:40,633
steps and setbacks as you go.

68
00:01:40,633 --> 00:01:41,701
There's a lot of learning,

69
00:01:41,701 --> 00:01:42,502
making changes

70
00:01:42,502 --> 00:01:43,503
and sometimes even going

71
00:01:43,503 --> 00:01:45,872
back to the drawing board.

72
00:01:45,872 --> 00:01:46,873
This competition

73
00:01:46,873 --> 00:01:48,107
has provided you with

74
00:01:48,107 --> 00:01:49,509
a lot of experiences

75
00:01:49,509 --> 00:01:51,110
that will serve you well

76
00:01:51,110 --> 00:01:52,178
regardless of the career

77
00:01:52,178 --> 00:01:54,314
you plan to explore.

78
00:01:54,314 --> 00:01:55,148
I would encourage you

79
00:01:55,148 --> 00:01:56,516
to take the lessons

80
00:01:56,516 --> 00:01:57,183
that you've learned

81
00:01:57,183 --> 00:01:59,519
along the way and use them

82
00:01:59,519 --> 00:02:00,987
in your life as you go forward

83
00:02:00,987 --> 00:02:02,455
to do great things.

84
00:02:02,455 --> 00:02:04,524
Remember that whether your path

85
00:02:04,524 --> 00:02:06,159
is to be a rocket scientist,

86
00:02:06,159 --> 00:02:07,861
an astronaut,

87
00:02:07,861 --> 00:02:09,362
an engineer or something

88
00:02:09,362 --> 00:02:11,531

completely unrelated,

89
00:02:11,531 --> 00:02:12,999
what matters most is that

90
00:02:12,999 --> 00:02:14,968
you enjoy what you're doing.

91
00:02:14,968 --> 00:02:16,402
Find the thing you enjoy

92
00:02:16,402 --> 00:02:18,104
the most, where your passion is,

93
00:02:18,104 --> 00:02:18,905
and work to become

94
00:02:18,905 --> 00:02:20,840
the best at it and do that

95
00:02:20,840 --> 00:02:22,542
one thing with passion.

96
00:02:22,542 --> 00:02:24,077
The rest will follow.

97
00:02:24,077 --> 00:02:25,278
I congratulate you

98
00:02:25,278 --> 00:02:26,479
on completing your project

99
00:02:26,479 --> 00:02:28,481
for the NASA Student Launch.

100
00:02:28,481 --> 00:02:29,916
It's challenging enough

101
00:02:29,916 --> 00:02:31,551
in the best of times,

102
00:02:31,551 --> 00:02:32,352
and ever more so

103
00:02:32,352 --> 00:02:33,386
during the unique times

104
00:02:33,386 --> 00:02:34,754
we're living in now.

105
00:02:34,754 --> 00:02:37,123
Congratulations, good luck,

106
00:02:37,123 --> 00:02:37,790
and I wish you

107
00:02:37,790 --> 00:02:38,625
the very, very best

108
00:02:38,625 --> 00:02:40,827
in your future endeavors.

109
00:02:46,199 --> 00:02:47,300
>> The Vehicle Design Award

110
00:02:47,300 --> 00:02:48,134
is given to the team

111
00:02:48,134 --> 00:02:49,335
with the most creative,

112
00:02:49,335 --> 00:02:50,737
innovative and well-constructed

113
00:02:50,737 --> 00:02:52,071

overall vehicle design

114
00:02:52,071 --> 00:02:53,573
for their intended payload,

115
00:02:53,573 --> 00:02:54,474
while still maximizing

116
00:02:54,474 --> 00:02:56,109
safety and efficiency.

117
00:02:56,109 --> 00:02:58,144
Here are our winners.

118
00:02:58,144 --> 00:02:59,445
Third place, University

119
00:02:59,445 --> 00:03:02,515
of North Carolina, Charlotte.

120
00:03:02,515 --> 00:03:03,449
Second place,

121
00:03:03,449 --> 00:03:04,851
the University of Florida,

122
00:03:04,851 --> 00:03:07,287
Gainesville, Florida.

123
00:03:07,287 --> 00:03:08,388
And in first place,

124
00:03:08,388 --> 00:03:09,489
Vanderbilt University

125
00:03:09,489 --> 00:03:13,693
of Nashville, Tennessee.

126
00:03:13,693 --> 00:03:15,228
Vanderbilt iterated their design

127
00:03:15,228 --> 00:03:16,896
to a precise and refined product

128
00:03:16,896 --> 00:03:18,031
justifying their decisions

129
00:03:18,031 --> 00:03:19,132
with a wealth of analysis

130
00:03:19,132 --> 00:03:20,700
and testing, both computer-aided

131
00:03:20,700 --> 00:03:22,235
and simulation.

132
00:03:22,235 --> 00:03:22,835
The team provided

133
00:03:22,835 --> 00:03:23,836
accurate and thorough

134
00:03:23,836 --> 00:03:25,204
computer-aided design models

135
00:03:25,204 --> 00:03:26,139
which clearly showed

136
00:03:26,139 --> 00:03:27,540
how the different systems,

137
00:03:27,540 --> 00:03:28,841
subsystems and components

138
00:03:28,841 --> 00:03:30,810

integrated together.

139
00:03:30,810 --> 00:03:32,045
This team used the fundamentals

140
00:03:32,045 --> 00:03:33,446
of rocket science to design

141
00:03:33,446 --> 00:03:34,614
and construct a vehicle

142
00:03:34,614 --> 00:03:36,082
that performed as designed