NASA Student Launch 2023 Awards Ceremony

June 6, 2023 | 1:00 P.M. CT

Sponsored by

NASA Office of STEM Engagement—Next Gen STEM
Northrop Grumman
National Space Club—Huntsville
American Institute of Aeronautics & Astronautics
Relativity Space
NASA Space Operations Mission Directorate
National Association of Rocketry
Bastion Technologies, Inc.
Siemens Digital Industries Software

NASA STUDENT LAUNCH 2023

1
00:00:05,588 --> 00:00:07,107
Hi. Welcome

2
00:00:07,107 --> 00:00:10,810
to the 2023 Artemis Student Challenge.

3
00:00:11,861 --> 00:00:15,865
NASA hosts these challenges to attract
and inspire the world's

4
00:00:15,865 --> 00:00:21,071
next generation of scientists
and engineers and explorers.

5
00:00:21,688 --> 00:00:24,641
Thank you for your hard work
and your dedication.

6
00:00:24,641 --> 00:00:27,627
You are the Artemis Generation.

7
00:00:28,028 --> 00:00:33,249
You will lead us on to the next great
space adventure, to the moon,

8
00:00:33,666 --> 00:00:36,669
to Mars, and beyond.

9
00:00:38,938 --> 00:00:40,840
Hello and welcome to the awards

10
00:00:40,840 --> 00:00:44,377
broadcast for NASA's 2023 Student
Launch Challenge.

11
00:00:44,761 --> 00:00:46,629
I'm Lane Figueroa with NASA's

12

00:00:46,629 --> 00:00:49,616
Marshall Space
Flight Center here in Huntsville, Alabama.

13
00:00:49,649 --> 00:00:52,535
It is my pleasure to M.C. Today's event.

14
00:00:52,535 --> 00:00:54,487
We think NASA's administrator, Bill

15
00:00:54,487 --> 00:00:57,841
Nelson, for his inspiring words
of encouragement to each of you.

16
00:00:58,558 --> 00:01:00,927
It is now my pleasure to introduce
a former

17
00:01:00,927 --> 00:01:03,930
Marine Corps
pilot and retired NASA astronaut.

18
00:01:04,264 --> 00:01:08,134
He piloted space shuttle
missions, STS 127 and STS

19
00:01:08,134 --> 00:01:11,438
135, the final flight of the space
shuttle program.

20
00:01:12,005 --> 00:01:15,125
He also commanded
Space X as Crew Dragon Demo II

21
00:01:15,391 --> 00:01:19,028
and is now the senior director of business
development for Northrop Grumman.

22
00:01:19,379 --> 00:01:21,481
Please welcome Mr. Doug Hurley.

23
00:01:22,465 --> 00:01:23,466
Hello, everyone.

24
00:01:23,466 --> 00:01:25,018
My name is Doug Hurley and I'm

25
00:01:25,018 --> 00:01:28,705
the director of business development here
at Northrop Grumman Propulsion Systems.

26
00:01:29,456 --> 00:01:33,359
I am honored and excited to welcome you
all to the 2023

27
00:01:33,359 --> 00:01:36,362
NASA Student Launch awards ceremony.

28
00:01:36,446 --> 00:01:38,731
There are many awards
that will be presented today,

29
00:01:38,731 --> 00:01:42,418
and each one of them was earned by
the hard work done by members of a team.

30
00:01:43,419 --> 00:01:46,289
As we announce the winners,
I want each of you to reflect

31
00:01:46,289 --> 00:01:49,292
and think back on the work
you did as a member of your team.

32
00:01:49,809 --> 00:01:52,796
What skills did you bring that
helped your team succeed?

33
00:01:53,279 --> 00:01:55,265

What skills
did you develop during the year

34
00:01:55,265 --> 00:01:58,051
that will be important in your future?

35
00:01:58,051 --> 00:02:01,688
What skills did others bring
that you could not have succeeded without?

36
00:02:02,822 --> 00:02:04,808
I have been a member of many teams

37
00:02:04,808 --> 00:02:07,961
in my career and I know that
no individual succeeds a lot.

38
00:02:09,879 --> 00:02:12,599
The challenge issued by the Student
Launch Initiative

39
00:02:12,599 --> 00:02:16,953
is among the most demanding and difficult
of all Artemis Student challenges.

40
00:02:18,238 --> 00:02:21,941
It is a nine month commitment
simulating the rigor of an engineering

41
00:02:21,941 --> 00:02:25,445
design lifecycle,
including testing and performance.

42
00:02:26,579 --> 00:02:30,216
As a former astronaut,
I appreciate the hard work NASA engineers

43
00:02:30,216 --> 00:02:31,918
put into designing and testing

44
00:02:31,918 --> 00:02:34,954
the space vehicles
that I was so privileged to fly for.

45
00:02:36,306 --> 00:02:39,909
The astronauts of the future may very well
appreciate the work you do someday,

46
00:02:40,176 --> 00:02:43,329
and I hope you look back
to your participation in student launch

47
00:02:43,746 --> 00:02:47,800
as an invaluable experience and a positive
influence on your STEM career.

48
00:02:49,385 --> 00:02:51,821
The skills you learned
and the challenges you faced

49
00:02:51,821 --> 00:02:55,108
as part of the student
launch are foundational to success.

50
00:02:55,775 --> 00:02:58,378
As NASA moves ever further in the space,

51
00:02:58,378 --> 00:03:01,681
I hope you are part of our
mission, the Artemis mission.

52
00:03:02,665 --> 00:03:05,785
You are the art of this generation,
and we are relying on you

53
00:03:05,785 --> 00:03:08,788
to bring your skills
to overcome our greatest challenges.

54

00:03:09,606 --> 00:03:13,209
Congratulations
on a fantastic year and a job well done.

55
00:03:14,310 --> 00:03:17,313
I wish you all the best of luck
in your future endeavors.

56
00:03:19,465 --> 00:03:20,800
Thank you, Mr. Hurley.

57
00:03:20,800 --> 00:03:22,869
We appreciate your support.

58
00:03:22,869 --> 00:03:25,471
We will now begin the awards presentation.

59
00:03:25,471 --> 00:03:28,858
Our first award, the social media Award,
is presented by Mr.

60
00:03:28,858 --> 00:03:32,111
Kevin McGaw, director
of the Southeast Regional Office

61
00:03:32,111 --> 00:03:35,098
of NASA's Office of STEM Engagement.

62
00:03:36,065 --> 00:03:38,251
Social Media is an important communication

63
00:03:38,251 --> 00:03:41,254
tool for telling NASA's
stories to the world.

64
00:03:41,254 --> 00:03:44,641
The breathtaking images
sent back from the James Webb Telescope,

65

00:03:45,058 --> 00:03:48,544
the historic launch of Artemis
and the successful reentry

66
00:03:48,544 --> 00:03:52,899
and recovery of the Orion crew capsule,
and, of course, the long awaited

67
00:03:52,899 --> 00:03:57,387
announcement of the Artemis
two crew selection are just a few stories

68
00:03:57,387 --> 00:04:01,291
brought directly to you through NASA's
many social media platforms.

69
00:04:01,925 --> 00:04:05,612
And just like we use social media
to tell the world our story,

70
00:04:05,979 --> 00:04:09,399
the student launch teams
use it in amazing and innovative ways

71
00:04:09,599 --> 00:04:13,836
to tell their stories, stories
told through pictures and video

72
00:04:13,836 --> 00:04:18,491
of what it takes to design a rocket
and payloads system of the late nights

73
00:04:18,491 --> 00:04:24,180
working in the lab, or writing technical
reports of the excitement of completing

74
00:04:24,180 --> 00:04:29,168
in passing milestone presentations
or even the heartbreak of losing a rocket

75

00:04:29,168 --> 00:04:32,255
they put their heart and soul
into during a test launch.

76
00:04:32,972 --> 00:04:37,176
Stories of teens inspiring
students of all ages through science,

77
00:04:37,176 --> 00:04:41,998
math, engineering and technology,
of serving their communities,

78
00:04:42,298 --> 00:04:46,052
and of fostering the next generation
of space explorers.

79
00:04:47,020 --> 00:04:48,121
What teens showed the

80
00:04:48,121 --> 00:04:51,791
world was their dedication,
their perseverance,

81
00:04:52,108 --> 00:04:55,979
their wins and losses,
and their passion for what they do.

82
00:04:56,829 --> 00:04:57,697
Through their eyes,

83
00:04:57,697 --> 00:05:01,501
we were able to see what it makes,
what it takes to make up a team

84
00:05:01,901 --> 00:05:06,039
and what NASA's student launch and why
NASA's student launch is so impactful

85
00:05:06,606 --> 00:05:08,558
for the student

launched Social Media Award.

86
00:05:08,558 --> 00:05:13,262
Teams are judged on their posting
consistency, their creativity and

87
00:05:13,262 --> 00:05:14,647
their content.

88
00:05:14,647 --> 00:05:18,518
It is my honor to announce
the top three teams in each division

89
00:05:19,118 --> 00:05:22,121
for the middle school
and high school or SLI division.

90
00:05:22,238 --> 00:05:25,775
Finishing in third place is Boy
Scout Troop 17

91
00:05:25,975 --> 00:05:28,978
from Charlottesville, Virginia,

92
00:05:29,762 --> 00:05:32,765
in second placed East Aurora High School

93
00:05:32,849 --> 00:05:35,852
from East Aurora, New York.

94
00:05:36,519 --> 00:05:39,839
And in first place is Morris County 4-H.

95
00:05:40,239 --> 00:05:42,625
In Morris County, New Jersey.

96
00:05:42,625 --> 00:05:47,663
the Morris County4-H Rocketry Club
had a quality and active online presence

97
00:05:47,663 --> 00:05:53,553
that was regularly updated with photos,
video and details about their project.

98
00:05:53,886 --> 00:05:55,972
Congratulations. Morris County

99
00:05:58,174 --> 00:05:58,524
and for

100
00:05:58,524 --> 00:06:01,527
the college and University
or UCLA division.

101
00:06:01,527 --> 00:06:05,965
Finishing in third place is the University
of North Carolina in Charlotte

102
00:06:06,299 --> 00:06:09,302
from Charlotte, North Carolina,

103
00:06:09,385 --> 00:06:12,155
and in second place, North Carolina State

104
00:06:12,155 --> 00:06:15,141
University in Raleigh, North Carolina.

105
00:06:15,908 --> 00:06:18,411
And in first place
is the University of Puerto

106
00:06:18,411 --> 00:06:22,882
Rico Mayaguez
campus, the University of Puerto Rico.

107
00:06:22,899 --> 00:06:27,987
Social media presence throughout this year
was top notch from professional photo

108
00:06:27,987 --> 00:06:33,109
shoots, fundraising, sharing NASCAR
content, and meet the team segments.

109
00:06:33,476 --> 00:06:37,764
Their graphics, consistency
and quality of posts stood out.

110
00:06:37,947 --> 00:06:41,667
Congratulations
to the University of Puerto Rico Mayaguez.

111
00:06:42,535 --> 00:06:44,187
Thank you, Mr. McGaugh.

112
00:06:44,187 --> 00:06:48,324
Up next is the best looking Rocket Award
and is presented by Dr.

113
00:06:48,324 --> 00:06:49,459
Kari Olson,

114
00:06:49,459 --> 00:06:53,930
the project manager for Next Gen STEM
with NASA's Office of STEM Engagement.

115
00:06:54,347 --> 00:06:59,268
Student Launch Challenges Students
to Design, Build and Fly a high powered

116
00:06:59,268 --> 00:07:00,736
rocket and Payload.

117
00:07:00,736 --> 00:07:04,557
But performance is the isn't
the only thing that makes a team's rocket

118
00:07:04,557 --> 00:07:05,691

memorable.

119
00:07:05,691 --> 00:07:08,628
A rocket with a creative,
unique and appealing

120
00:07:08,628 --> 00:07:11,631
look make it stand out
amongst its competitors.

121
00:07:12,231 --> 00:07:14,984
Teams put hours into making their rockets

122
00:07:14,984 --> 00:07:17,987
not only perform well, but look good too.

123
00:07:18,588 --> 00:07:22,258
The best looking Rocket Award
is given to teams in both the middle

124
00:07:22,258 --> 00:07:25,795
and high school division
and the university and college division.

125
00:07:26,145 --> 00:07:28,965
It is voted on by the competitors
themselves

126
00:07:28,965 --> 00:07:32,335
at the Rocket Fair held
during launch week in Huntsville.

127
00:07:32,368 --> 00:07:36,539
Every April
this year, the winners in the SLI

128
00:07:36,539 --> 00:07:39,525
division are in third place

129

00:07:39,675 --> 00:07:43,379
Boy Scout
Troop 17, Charlottesville, Virginia

130
00:07:45,598 --> 00:07:47,333
in second place.

131
00:07:47,333 --> 00:07:49,552
Yamhill Carleton High School.

132
00:07:49,552 --> 00:07:52,555
Yamhill, Oregon.

133
00:07:53,122 --> 00:07:54,857
And in first place.

134
00:07:54,857 --> 00:07:56,809
Cedar Falls High School.

135
00:07:56,809 --> 00:07:59,812
Cedar Falls, Iowa.

136
00:08:02,482 --> 00:08:04,167
The winners in the U.S.

137
00:08:04,167 --> 00:08:07,854
Ally Division are in third place.

138
00:08:08,271 --> 00:08:09,889
Auburn University.

139
00:08:09,889 --> 00:08:12,892
Auburn, Alabama.

140
00:08:13,793 --> 00:08:15,495
In second place.

141
00:08:15,495 --> 00:08:19,165

Virginia Polytechnic Institute and State
University.

142
00:08:19,499 --> 00:08:22,485
Blacksburg, Virginia.

143
00:08:23,786 --> 00:08:25,705
And in first place.

144
00:08:25,705 --> 00:08:28,307
North Carolina State University.

145
00:08:28,307 --> 00:08:31,310
Raleigh, North Carolina.

146
00:08:31,978 --> 00:08:33,045
Congratulations

147
00:08:33,045 --> 00:08:36,616
to these teams on their unique
and great looking rockets.

148
00:08:36,749 --> 00:08:37,917
Well done.

149
00:08:37,917 --> 00:08:39,418
Thank you, Dr. Olsen.

150
00:08:39,418 --> 00:08:42,955
Our next speaker is a familiar face
to all our participating students.

151
00:08:43,189 --> 00:08:44,156
Please welcome Mr.

152
00:08:44,156 --> 00:08:48,744
Zack Cook, safety Engineer for Student
Launch with Bastion Technologies, Inc.

153
00:08:49,078 --> 00:08:52,198
He is presenting the US
Ally Project Review Award,

154
00:08:52,848 --> 00:08:56,869
Innovating, Enduring Setbacks,
and completing difficult work on Time.

155
00:08:57,286 --> 00:09:00,289
All Abilities
Critical for Success in Student Launch.

156
00:09:00,806 --> 00:09:03,809
They are, however, not the only skills
required.

157
00:09:03,893 --> 00:09:07,046
Communication is critical
to success in this program

158
00:09:07,346 --> 00:09:10,349
as well as in any career or pursuit.

159
00:09:10,800 --> 00:09:14,387
The Project Review Award recognizes
the college or university team

160
00:09:15,021 --> 00:09:18,658
that had the best combination
of written reports and milestone review

161
00:09:18,658 --> 00:09:21,794
presentations throughout the student
launch Project year.

162
00:09:22,678 --> 00:09:27,116
This year's winners are in third place
the University of Notre Dame.

163

00:09:27,416 --> 00:09:28,584
Notre Dame. Indiana.

164
00:09:30,386 --> 00:09:31,554
In second place

165
00:09:31,554 --> 00:09:34,557
is Vanderbilt University,
Nashville, Tennessee.

166
00:09:36,208 --> 00:09:38,961
And in first place,
the University of North Carolina

167
00:09:38,961 --> 00:09:41,964
at Charlotte, Charlotte, North Carolina.

168
00:09:43,099 --> 00:09:45,201
The University of North Carolina
at Charlotte

169
00:09:45,201 --> 00:09:49,455
consistently produced exceptional
quality reports that were well-organized,

170
00:09:49,855 --> 00:09:52,858
make good use of graphics and drawings,

171
00:09:52,908 --> 00:09:55,761
and presented all essential information.

172
00:09:55,761 --> 00:09:56,963
Clearly,

173
00:09:56,963 --> 00:10:01,284
their presentations were efficient
and understandable, and every team member

174
00:10:01,500 --> 00:10:05,638

displayed a strong understanding of the
material that they were responsible for.

175
00:10:06,389 --> 00:10:09,375
Congratulations to the University
of North Carolina at Charlotte.

176
00:10:10,109 --> 00:10:11,577
Thank you, Mr. Cook.

177
00:10:11,577 --> 00:10:14,630
It is now my pleasure
to introduce a key leader with NASA.

178
00:10:14,847 --> 00:10:16,399
We welcome Chris Brown,

179
00:10:16,399 --> 00:10:20,486
deputy associate administrator
for NASA's Office of STEM Engagement.

180
00:10:20,870 --> 00:10:23,689
To present a brand new award
this year, the US

181
00:10:23,689 --> 00:10:26,692
Ally Service Academy Award

182
00:10:26,809 --> 00:10:30,079
Student launch is a major undertaking
for any team.

183
00:10:30,229 --> 00:10:33,499
The women and men of the United States
service academies

184
00:10:33,866 --> 00:10:37,286
have very busy days
full of classes, drill and training.

185
00:10:37,820 --> 00:10:39,238
The additional rigors

186
00:10:39,238 --> 00:10:43,309
of the Student Launch initiative provide
additional workload and challenges.

187
00:10:43,859 --> 00:10:47,780
As such, it is both admirable
and worthy of recognition

188
00:10:47,780 --> 00:10:51,317
that each year several of the academies
compete in the program.

189
00:10:52,184 --> 00:10:55,888
The Service Academy Award
is given to the top performing team

190
00:10:55,888 --> 00:10:58,874
from one of the United
States service academies.

191
00:11:00,076 --> 00:11:00,926
The winner of the

192
00:11:00,926 --> 00:11:04,463
2023 Service Academy Award is

193
00:11:05,748 --> 00:11:08,384
the United States Military Academy

194
00:11:08,384 --> 00:11:11,387
in West Point, New York.

195
00:11:11,787 --> 00:11:12,988
Throughout the competition

196

00:11:12,988 --> 00:11:16,125
season,
the United States Military Academy team

197
00:11:16,125 --> 00:11:20,246
members proved that they were capable,
adaptable and determined.

198
00:11:20,279 --> 00:11:24,900
Overcoming a multitude of setbacks
and difficulties, ultimately

199
00:11:24,900 --> 00:11:29,338
completing the student launch program
with a successful launch in Huntsville.

200
00:11:30,206 --> 00:11:32,358
Congratulate missions to the United States

201
00:11:32,358 --> 00:11:35,361
Military Academy.

202
00:11:35,661 --> 00:11:37,196
Thank you, Mrs. Brown.

203
00:11:37,196 --> 00:11:38,664
Next, we welcome Dr.

204
00:11:38,664 --> 00:11:39,648
a lot of Taylor.

205
00:11:39,648 --> 00:11:42,735
NASA's director of Strategic
Integration and Management.

206
00:11:42,918 --> 00:11:45,921
She is presenting the Altitude Award.

207
00:11:46,972 --> 00:11:49,558

When launching rockets,

208
00:11:49,558 --> 00:11:52,344
the question always ask is

209
00:11:52,344 --> 00:11:55,197
how high does it go

210
00:11:55,197 --> 00:11:58,167
for the do not launch Project

211
00:11:58,167 --> 00:12:01,854
teams decide the target altitude
for their rockets.

212
00:12:02,188 --> 00:12:08,127
Early in the program, as part of their
planetary design review each fall,

213
00:12:09,178 --> 00:12:11,063
teams then design their

214
00:12:11,063 --> 00:12:15,584
rocket and propulsion systems
to meet stringent weight

215
00:12:16,285 --> 00:12:19,188
and thrust values needed to reach as close

216
00:12:19,188 --> 00:12:22,191
as they can to that target.

217
00:12:22,374 --> 00:12:26,896
Modeling and simulation
software is used to predict

218
00:12:26,896 --> 00:12:30,900
their rocket's performance
before any actual launching is done.

219
00:12:31,884 --> 00:12:35,354
Only then or test launches performed

220
00:12:35,688 --> 00:12:38,691
to confirm that their models are accurate.

221
00:12:39,208 --> 00:12:44,029
Once adjustments,
we and tests are complete.

222
00:12:44,747 --> 00:12:47,783
The team calls its final launch

223
00:12:48,167 --> 00:12:51,170
hoping for the best possible results.

224
00:12:51,771 --> 00:12:55,224
In each division,
the team that comes closest

225
00:12:55,224 --> 00:12:59,428
to their predicted altitude
in their final launch

226
00:12:59,695 --> 00:13:02,698
wins the altitude award.

227
00:13:02,865 --> 00:13:07,520
This award can be close competition,
sometimes

228
00:13:07,520 --> 00:13:11,273
coming down to single digit differences
in feet

229
00:13:11,957 --> 00:13:14,960
between teams and their targets.

230
00:13:15,644 --> 00:13:20,299
For this year's
middle and High school Division or SL II,

231
00:13:20,699 --> 00:13:23,452
the winners are third place

232
00:13:24,470 --> 00:13:26,839
math mania, Robotics.

233
00:13:26,839 --> 00:13:29,842
El Kayvon, California.

234
00:13:32,511 --> 00:13:34,580
In second place,

235
00:13:34,580 --> 00:13:38,217
famous high school, famous Washington.

236
00:13:41,303 --> 00:13:43,405
And this year's SL High

237
00:13:43,405 --> 00:13:48,711
Altitude Award goes to Spring Grove Area
High School.

238
00:13:49,078 --> 00:13:52,064
Spring Grove, Pennsylvania.

239
00:13:55,017 --> 00:13:58,187
Ringrose Nearly perfect flight left them

240
00:13:58,187 --> 00:14:01,307
just 28 feet from their target altitude

241
00:14:01,707 --> 00:14:04,460
of 4500 feet.

242
00:14:04,460 --> 00:14:05,728
Congratulations.

243
00:14:05,728 --> 00:14:08,714
Spring Grove Area High School

244
00:14:09,748 --> 00:14:13,736
for the College and University
Vision or U.S.

245
00:14:13,736 --> 00:14:14,970
ally.

246
00:14:14,970 --> 00:14:18,507
The winters are finishing third.

247
00:14:18,958 --> 00:14:22,344
The University of Alabama in Huntsville.

248
00:14:23,028 --> 00:14:26,031
Huntsville, Alabama,

249
00:14:26,365 --> 00:14:28,133
in second place.

250
00:14:28,133 --> 00:14:31,253
University of North Carolina at Charlotte.

251
00:14:31,770 --> 00:14:34,757
Charlotte, North Carolina.

252
00:14:35,307 --> 00:14:36,375
And the U.S.

253
00:14:36,375 --> 00:14:38,310
ally. First place.

254

00:14:38,310 --> 00:14:43,732
Altitude
Food Award goes to Vanderbilt University.

255
00:14:44,033 --> 00:14:47,036
Nashville, Tennessee.

256
00:14:49,271 --> 00:14:50,506
Vanderbilt's target

257
00:14:50,506 --> 00:14:56,095
altitude was also 4500 feet,
but their design

258
00:14:56,095 --> 00:14:59,265
this year included a sophisticated

259
00:14:59,515 --> 00:15:02,518
altitude control thin system.

260
00:15:03,202 --> 00:15:06,772
The team was able to hone in
on their target altitude,

261
00:15:07,439 --> 00:15:11,327
running calculations in real time
during their rocket ascent

262
00:15:11,894 --> 00:15:16,398
and only missed
being dead on by four feet.

263
00:15:17,149 --> 00:15:20,002
Congratulations to Vanderbilt University.

264
00:15:20,986 --> 00:15:23,722
Congratulations to all.

265
00:15:23,722 --> 00:15:25,174

Thank you, Dr. Taylor.

266
00:15:25,174 --> 00:15:25,641
The U.S.

267
00:15:25,641 --> 00:15:29,428
allies safety Award is up next
and is presented by early midnight.

268
00:15:29,762 --> 00:15:32,815
The Institutional Safety
and Quality manager for Bastion

269
00:15:32,815 --> 00:15:35,818
Technologies, Inc..

270
00:15:35,968 --> 00:15:37,586
Hello.

271
00:15:37,586 --> 00:15:39,655
I'm honored to represent Bastion

272
00:15:39,655 --> 00:15:42,658
Technologies and NASA's student launch

273
00:15:42,958 --> 00:15:46,495
for the presentation of the 2023
Safety award.

274
00:15:48,113 --> 00:15:51,266
When working with rockets,
there are many areas

275
00:15:51,266 --> 00:15:55,170
in which things can go wrong for our teams
and our program.

276
00:15:56,488 --> 00:15:58,490
Therefore, safety must be

277
00:15:58,490 --> 00:16:01,493
the highest priority.

278
00:16:01,493 --> 00:16:03,112
Working in machine shops

279
00:16:03,112 --> 00:16:08,100
and laboratories, launching at the field,
handling energetics

280
00:16:08,600 --> 00:16:12,271
and testing hardware involves
some level of danger.

281
00:16:13,656 --> 00:16:16,325
Even watching a live rocket

282
00:16:16,325 --> 00:16:19,311
launch involves some measurable risk.

283
00:16:20,646 --> 00:16:23,666
This year, the teams did an excellent job

284
00:16:23,666 --> 00:16:27,770
of incorporating safety measures
into their programs.

285
00:16:29,304 --> 00:16:32,307
They researched how hazards may manifest

286
00:16:32,758 --> 00:16:36,745
and they documented
the steps taken to mitigate those steps.

287
00:16:39,298 --> 00:16:39,865
The safety

288

00:16:39,865 --> 00:16:44,403
award is given to the team
that has met all of student launches,

289
00:16:44,403 --> 00:16:48,357
safety expectations, and documented it

290
00:16:48,357 --> 00:16:51,360
to the highest quality

291
00:16:52,911 --> 00:16:54,663
bastion Technologies

292
00:16:54,663 --> 00:17:00,352
as a leader in safety and mission
Assurance has been a proud sponsor

293
00:17:00,352 --> 00:17:03,355
of NASA's student launch for many years.

294
00:17:04,790 --> 00:17:08,277
Bastion
demonstrates its commitment to safety

295
00:17:08,660 --> 00:17:12,114
and to continued support
for student launch

296
00:17:12,681 --> 00:17:15,951
by providing a $500 prize

297
00:17:16,385 --> 00:17:19,371
to the first place winner of this award.

298
00:17:22,141 --> 00:17:24,026
This year's recipient

299
00:17:24,026 --> 00:17:28,864
of the 2023 Student Launch Safety Award is

300
00:17:30,899 --> 00:17:34,053
the University of North Carolina
at Charlotte

301
00:17:34,586 --> 00:17:37,589
in Charlotte, North Carolina.

302
00:17:40,492 --> 00:17:43,495
The University of North Carolina
at Charlotte

303
00:17:43,562 --> 00:17:47,316
produced a thorough hazard analysis
documentation,

304
00:17:48,267 --> 00:17:51,954
taking extra care to see that all hazards

305
00:17:51,954 --> 00:17:54,957
were accounted for and mitigated.

306
00:17:55,791 --> 00:17:59,611
Additionally, their standard
operating and launch procedures

307
00:18:00,262 --> 00:18:04,349
clearly detailed
every step of the team's operations,

308
00:18:04,800 --> 00:18:10,589
including safety practices, accountable
ability and technical specifications.

309
00:18:13,025 --> 00:18:14,843
Congratulations to the

310
00:18:14,843 --> 00:18:17,930
University of North Carolina at Charlotte.

311
00:18:19,314 --> 00:18:20,015
Thank you, Mr.

312
00:18:20,015 --> 00:18:23,335
Big Night for our next award,
we welcome Sophie Amster,

313
00:18:23,485 --> 00:18:26,371
the events program manager
for Relativity Space.

314
00:18:26,371 --> 00:18:29,374
She is presenting the 3D printing award

315
00:18:29,758 --> 00:18:34,763
from 1986 when the first pilot was issued
for a 3D printing device.

316
00:18:35,097 --> 00:18:38,066
Individuals and companies
have been pushing the boundaries

317
00:18:38,066 --> 00:18:41,103
of what can be manufactured
using 3D printing.

318
00:18:41,753 --> 00:18:45,424
Earlier this year, Relativity Space
launched Terran one

319
00:18:45,691 --> 00:18:50,362
their first nearly entirely 3D
printed rocket and proved 3D

320
00:18:50,362 --> 00:18:54,983
printing is viable, bypassing max-q
the mass stress on the rocket

321

00:18:55,467 --> 00:19:00,689
Terran one was also the first methane
fueled rocket in the West to reach space

322
00:19:01,023 --> 00:19:06,094
past the 100 kilometer
Karman line Relativity has now accelerated

323
00:19:06,094 --> 00:19:10,432
the company's focus on Terran R,
which is our next generation.

324
00:19:10,432 --> 00:19:15,504
Reusable 3D printed rocket set to launch
starting in 2026,

325
00:19:15,871 --> 00:19:18,841
with more and more student
launch teams utilizing

326
00:19:18,841 --> 00:19:21,844
3D printing in their vehicle
and payload designs.

327
00:19:22,044 --> 00:19:26,882
Relativity is honored to present the 3D
printing award to the S, I

328
00:19:26,915 --> 00:19:32,788
I and you supply team with the best
application design and implementation

329
00:19:32,788 --> 00:19:36,175
of 3D printing into their
launch vehicle and payload

330
00:19:37,142 --> 00:19:38,794
for the SLI division.

331
00:19:38,794 --> 00:19:42,147

The winner of the 3D
printing award is East

332
00:19:42,147 --> 00:19:45,150
Aurora High School from East Aurora,
New York.

333
00:19:46,768 --> 00:19:50,522
This award comes with a $1,000 prize
sponsor.

334
00:19:50,522 --> 00:19:52,524
Buy Relativity Space.

335
00:19:52,524 --> 00:19:57,512
East Aurora High School utilized 3D
printing to manufacture their nose cone

336
00:19:57,746 --> 00:20:01,116
GPUs and secondary structure
for their payload bay.

337
00:20:01,550 --> 00:20:05,404
The team made sure to evaluate
material trades and reasoning

338
00:20:05,704 --> 00:20:10,192
for opting for 3D components over
conventional materials.

339
00:20:10,676 --> 00:20:14,012
East Aurora took advantage of the benefits
of 3D printing

340
00:20:14,012 --> 00:20:17,015
to optimize packaging
within the payload bay.

341
00:20:17,015 --> 00:20:18,383
Congratulations ESA.

342
00:20:18,383 --> 00:20:20,786
Our high school

343
00:20:20,786 --> 00:20:22,704
for the US Division.

344
00:20:22,704 --> 00:20:26,425
The winner of the 3D printing award
is Iowa State

345
00:20:26,425 --> 00:20:29,428
University from Ames, Iowa.

346
00:20:30,662 --> 00:20:32,848
This award comes with a $1,000

347
00:20:32,848 --> 00:20:35,851
prize sponsored by Relativity Space.

348
00:20:35,968 --> 00:20:38,270
Iowa State University utilized 3D

349
00:20:38,270 --> 00:20:42,241
printing to manufacture
majority of their rocket components.

350
00:20:42,574 --> 00:20:45,661
They took advantage of 3D
printing to manufacture

351
00:20:45,661 --> 00:20:50,282
a unique nose cone design to improve
their capabilities of the rocket.

352
00:20:50,666 --> 00:20:54,419
The team worked beyond simplifying
manufacturing challenges

353
00:20:54,686 --> 00:20:58,941
and evaluated material properties of 3D
printed coupons for their design.

354
00:20:59,341 --> 00:21:01,143
Congratulations, Iowa State.

355
00:21:02,427 --> 00:21:03,061
Thank you. Mrs.

356
00:21:03,061 --> 00:21:07,232
Amster The National Association
of Rocketry provides technical support

357
00:21:07,232 --> 00:21:10,702
for student launch and is instrumental
to the competition's success.

358
00:21:11,069 --> 00:21:12,471
Their President, Mr.

359
00:21:12,471 --> 00:21:15,741
John Horkheimer, is presenting the STEM
Engagement Award.

360
00:21:17,342 --> 00:21:18,627
Good afternoon.

361
00:21:18,627 --> 00:21:22,464
Each year, NASA's student launch
and the National Association of Rocketry

362
00:21:22,497 --> 00:21:27,035
dedicate the STEM Engagement Award
to an individual in the rocketry community

363
00:21:27,202 --> 00:21:30,238
who has gone above
and beyond mentoring young people in STEM.

364
00:21:30,906 --> 00:21:34,142
This year,
we dedicate the award in memory of Dr.

365
00:21:34,142 --> 00:21:37,145
Pavel Pincus,
who passed away earlier this year.

366
00:21:37,713 --> 00:21:41,283
Dr. Pincus supported rocketry programs,
including NASA's student

367
00:21:41,283 --> 00:21:45,954
launch for over 26 years
as a mentor for Madison Less Rocket Club.

368
00:21:45,954 --> 00:21:48,957
Dr. Pincus encouraged
well over 500 students

369
00:21:49,257 --> 00:21:52,260
to pursue their passions
in STEM learning and careers.

370
00:21:52,611 --> 00:21:56,131
His team was consistently a top performer
and student launch

371
00:21:56,515 --> 00:21:59,518
American Rocketry
Challenge and Rockets for schools.

372
00:21:59,968 --> 00:22:03,655
It is our honor to dedicate the NASA's
Student Life STEM Engagement

373
00:22:03,655 --> 00:22:04,890
Award in his memory

374
00:22:06,141 --> 00:22:09,061
Passion for science, technology,
engineering and math

375
00:22:09,061 --> 00:22:12,080
is at the heart of every national student
launch participant.

376
00:22:12,681 --> 00:22:15,417
Often
this passion was ignited and nurtured

377
00:22:15,417 --> 00:22:18,420
in them by a parent, teacher, or mentor.

378
00:22:18,537 --> 00:22:22,791
That is why, as a part of this program,
our teams are tasked with reaching out

379
00:22:22,791 --> 00:22:26,812
and inspiring the next generation
of STEM learners in their own communities.

380
00:22:27,562 --> 00:22:31,083
This year, student launch teams engage
more than 53,000

381
00:22:31,083 --> 00:22:35,220
students, educators and the public
at their summit engagement events

382
00:22:36,304 --> 00:22:36,922
each year.

383
00:22:36,922 --> 00:22:41,510
The STEM Engagement Award is given to the
top team in each division who competes,

384
00:22:42,627 --> 00:22:45,680

who completes the project requirements
through a combination

385
00:22:45,680 --> 00:22:48,683
of creative and effective STEM engagement
activities

386
00:22:49,101 --> 00:22:52,170
and events, quality reports
and numbers of learners.

387
00:22:52,170 --> 00:22:57,659
Reached is my honor to recognize the top
three teams from each division

388
00:22:57,659 --> 00:23:02,848
and announce the winners of the 2023
Student Launch STEM Engagement Award

389
00:23:03,982 --> 00:23:04,533
for the

390
00:23:04,533 --> 00:23:08,904
SLI Division, finishing in third
place is Camas High School.

391
00:23:08,970 --> 00:23:11,640
Kamasi Washington

392
00:23:11,640 --> 00:23:14,543
Finishing second place is Mass

393
00:23:14,543 --> 00:23:17,612
Mania Robotics, Mission Viejo, California,

394
00:23:18,864 --> 00:23:23,702
and this year's Middle and High School
division winner of the 2023 NASA's Student

395

00:23:23,702 --> 00:23:27,239
led STEM Engagement Award is Cedar Falls

396
00:23:27,239 --> 00:23:30,242
High School, Cedar Falls, Iowa.

397
00:23:31,593 --> 00:23:32,494
The Cedar Falls

398
00:23:32,494 --> 00:23:35,480
High School team
reached over 500 participants

399
00:23:35,664 --> 00:23:38,667
through their STEM engagement events
this year.

400
00:23:39,501 --> 00:23:43,622
Their various events included
hands on activities to teach K-through-12

401
00:23:43,622 --> 00:23:47,793
students about parachutes, aerodynamics
and the engineering design cycle.

402
00:23:48,477 --> 00:23:51,446
The team's activity reports
were well-written,

403
00:23:51,446 --> 00:23:55,767
and the passion they have for sharing
their love of rocketry shone through.

404
00:23:56,401 --> 00:23:58,920
The team will receive a $1,000 cash

405
00:23:58,920 --> 00:24:01,923
prize provided by the National Association
of Rocketry.

406
00:24:02,390 --> 00:24:05,393
Congratulations, Cedar Falls

407
00:24:06,061 --> 00:24:07,229
and in the U.S.

408
00:24:07,229 --> 00:24:11,099
Ally Division, finishing in third place
is the University of Alabama

409
00:24:11,099 --> 00:24:12,267
in Huntsville, Alabama.

410
00:24:13,835 --> 00:24:15,153
In second place

411
00:24:15,153 --> 00:24:18,156
is University of Notre Dame,
Notre Dame, Indiana.

412
00:24:19,107 --> 00:24:24,179
And this year's University division,
winner of the 2023 NASA's Student on STEM

413
00:24:24,179 --> 00:24:27,632
Engagement Award is Vanderbilt University,

414
00:24:27,899 --> 00:24:30,902
Nashville, Tennessee.

415
00:24:31,319 --> 00:24:32,521
Vanderbilt University

416
00:24:32,521 --> 00:24:36,241
engaged more than 1400
students, educators and adults

417
00:24:36,424 --> 00:24:40,595

in their community in a variety of STEM
activities, including a simple, yet

418
00:24:40,595 --> 00:24:44,966
unique activity
that taught participants about biomimicry

419
00:24:44,966 --> 00:24:48,570
and aerodynamics, and how engineers
get inspiration from nature

420
00:24:49,404 --> 00:24:52,774
by reaching out to a variety of groups,
including K through 12

421
00:24:52,774 --> 00:24:56,845
schools, community programs
like the YMCA and Nashville Zoo.

422
00:24:57,245 --> 00:25:01,132
The team was able to reach an extremely
diverse group of participants.

423
00:25:02,284 --> 00:25:06,605
Their reports were well-written
and included activity presentations,

424
00:25:06,605 --> 00:25:12,177
student handouts, examples of student work
and photos of from their events.

425
00:25:12,744 --> 00:25:15,297
The team will receive a $1,000

426
00:25:15,297 --> 00:25:18,717
cash prize provided
by the National Association of Rocketry.

427
00:25:18,934 --> 00:25:20,936
Congratulations. Vanderbilt University.

428
00:25:23,038 --> 00:25:23,638
Thank you, Mr.

429
00:25:23,638 --> 00:25:24,539
Horkheimer.

430
00:25:24,539 --> 00:25:28,026
Our next speaker is Bob Seibold,
the senior project leader

431
00:25:28,026 --> 00:25:29,995
for the Aerospace Corporation.

432
00:25:29,995 --> 00:25:32,731
He is presenting the US Ally Air,

433
00:25:32,731 --> 00:25:35,901
a reusable
launch vehicle Innovative Payload Award.

434
00:25:37,269 --> 00:25:40,255
Rocketry is a very demanding work,

435
00:25:40,255 --> 00:25:44,125
but NASA's student
launch is much more than just rocketry.

436
00:25:44,910 --> 00:25:47,963
Teams are also tasked
with designing, building

437
00:25:47,963 --> 00:25:50,966
and executing a scientific payload
mission.

438
00:25:51,600 --> 00:25:54,953
Traditionally, rockets
are a means to transport

439
00:25:54,953 --> 00:25:58,557
payloads
human and non-human to their destinations.

440
00:25:58,557 --> 00:26:01,893
In the solar system,
the payload can be anything

441
00:26:01,893 --> 00:26:05,096
from a scientific experiment
bound for the SS

442
00:26:05,630 --> 00:26:09,534
to the first humans
to set foot on the moon since 1969.

443
00:26:11,403 --> 00:26:13,355
This year, student launch

444
00:26:13,355 --> 00:26:17,826
teams were challenged to design a payload
that, upon landing,

445
00:26:18,143 --> 00:26:21,146
was capable of autonomously receiving

446
00:26:21,146 --> 00:26:25,250
radio frequency commands instructing,
instructing

447
00:26:25,250 --> 00:26:28,703
a series of tasks to be performed
by an onboard camera system.

448
00:26:29,571 --> 00:26:32,574
This type of technology vehicle capability

449
00:26:32,641 --> 00:26:35,543

is notably useful for unmanned planetary

450
00:26:35,543 --> 00:26:40,131
exploration, like the Mars Rover missions,
where a set of instructions

451
00:26:40,131 --> 00:26:43,835
must be delivered to onboard systems
for a task

452
00:26:43,835 --> 00:26:46,821
to be carried out
efficiently and correctly.

453
00:26:47,422 --> 00:26:50,125
They aiaa reusable

454
00:26:50,125 --> 00:26:53,612
launch vehicle
and the Innovative Payload Award

455
00:26:54,179 --> 00:26:56,815
is given to the college or university team

456
00:26:56,815 --> 00:27:01,319
with the most creative and innovative
way of tackling the challenge

457
00:27:01,820 --> 00:27:06,391
while maximizing safety
and science and engineering value.

458
00:27:07,826 --> 00:27:09,461
In third place,

459
00:27:09,461 --> 00:27:12,530
the University of North Carolina
at Charlotte,

460

00:27:15,900 --> 00:27:17,585
second place,

461
00:27:17,585 --> 00:27:20,005
Washington University and Saint Louis,

462
00:27:20,005 --> 00:27:23,008
Missouri,

463
00:27:23,158 --> 00:27:24,726
and first place,

464
00:27:24,726 --> 00:27:27,712
the University of Alabama in Huntsville.

465
00:27:30,332 --> 00:27:33,601
This award comes with a $1,000 prize

466
00:27:33,868 --> 00:27:36,688
sponsored by AIAA,

467
00:27:36,688 --> 00:27:39,124
the University of Alabama in Huntsville.

468
00:27:39,124 --> 00:27:42,110
An innovative approach
to this year's challenge

469
00:27:42,243 --> 00:27:46,014
resulted in a controlled
landing configuration design

470
00:27:46,381 --> 00:27:49,884
with a passively deployed
landing legs system.

471
00:27:50,669 --> 00:27:55,340
Their autonomous camera system
received decoded and executed

472
00:27:55,623 --> 00:28:00,512
the radio frequency commands sent by NASA
and under 30 seconds.

473
00:28:01,162 --> 00:28:04,132
Congratulations
to the University of Alabama

474
00:28:04,132 --> 00:28:07,135
in Huntsville.

475
00:28:07,552 --> 00:28:08,153
Thank you, Mr.

476
00:28:08,153 --> 00:28:09,003
Seibold.

477
00:28:09,003 --> 00:28:13,675
Next up is a US Ally Air, a reusable
launch vehicle award

478
00:28:13,675 --> 00:28:16,678
presented by Kurt Pols in the region
to director

479
00:28:16,678 --> 00:28:19,881
of the American Institute
of Aeronautics and Astronautics.

480
00:28:21,232 --> 00:28:22,751
Thank you for having me today.

481
00:28:22,751 --> 00:28:26,755
I am so pleased to join you
on behalf of the end to recognize the hard

482
00:28:26,755 --> 00:28:29,941
work of university students participating

in the NASA's student launch.

483
00:28:30,775 --> 00:28:34,112
Our Institute's mission
is shaping the future of aerospace,

484
00:28:34,796 --> 00:28:37,232
and that can sound
like a pretty bold statement,

485
00:28:37,232 --> 00:28:41,403
but it is the world's largest
professional aerospace technical society,

486
00:28:41,853 --> 00:28:45,140
so we are doing that
with the engagement of 30,000 professional

487
00:28:45,140 --> 00:28:48,359
and student members,
along with 100 corporate members.

488
00:28:49,227 --> 00:28:52,714
One of the most important aspects
of shaping the future of aerospace

489
00:28:53,164 --> 00:28:56,217
is ensuring that there's a talented,
qualified workforce.

490
00:28:57,085 --> 00:29:01,806
We want to see university students
like all of you develop into the leaders

491
00:29:01,806 --> 00:29:05,193
of the aerospace profession,
moving from classroom to career.

492
00:29:06,060 --> 00:29:09,080
You're taking an important step

on your journey by participating

493
00:29:09,080 --> 00:29:13,084
in this event and gaining
extremely valuable hands on experience.

494
00:29:14,152 --> 00:29:15,053
And student

495
00:29:15,053 --> 00:29:18,540
members have this type of opportunity
along with so much more.

496
00:29:19,073 --> 00:29:20,458
Everybody wants to be sure

497
00:29:20,458 --> 00:29:23,795
our student members
careers are connected to their passions.

498
00:29:24,245 --> 00:29:27,682
We support student members
dreams with three broad programs.

499
00:29:28,349 --> 00:29:33,655
One, we connect students with our diverse
international membership as mentors.

500
00:29:34,139 --> 00:29:36,574
This is the start
of your professional network.

501
00:29:36,574 --> 00:29:39,561
Then it can support you and help
you meet your goals and dreams

502
00:29:39,694 --> 00:29:43,865
every step of the way
throughout your career, too.

503
00:29:44,132 --> 00:29:45,083
We provide students

504
00:29:45,083 --> 00:29:48,770
with other competition and scholarship
opportunities, much like this one.

505
00:29:49,504 --> 00:29:53,725
And three, we give students access
to a cutting edge technical knowledge base

506
00:29:54,125 --> 00:29:56,761
of the aeronautics and aerospace industry,

507
00:29:56,761 --> 00:29:59,764
which dates back to the early 1900s.

508
00:30:00,181 --> 00:30:04,586
Now let's move forward the presentation
of the Reusable Launch Vehicle Award.

509
00:30:06,004 --> 00:30:08,122
Student
launch teams are challenged to design

510
00:30:08,122 --> 00:30:11,242
not just a high powered rocket,
but one that is reusable

511
00:30:11,242 --> 00:30:15,330
and can repeatedly fly to predictable
altitudes carrying an engineering payload.

512
00:30:16,164 --> 00:30:17,882
Over the course of the project year.

513
00:30:17,882 --> 00:30:21,653
Each team's design is evaluated
repeatedly by the National Review

514
00:30:21,653 --> 00:30:24,656
Panel
for Safety, Performance and Innovation.

515
00:30:25,340 --> 00:30:30,111
The Reusable Launch Vehicle Award
is given to the US Allied Division team,

516
00:30:30,378 --> 00:30:33,565
the most creative, innovative
and well constructed

517
00:30:33,565 --> 00:30:36,751
vehicle designed that maximizes safety
and efficiency

518
00:30:37,802 --> 00:30:39,504
for the 2023 year.

519
00:30:39,504 --> 00:30:41,990
The winners are

520
00:30:41,990 --> 00:30:44,309
in third place.

521
00:30:44,309 --> 00:30:46,377
The University of Alabama in Huntsville,

522
00:30:46,377 --> 00:30:49,380
Huntsville, Alabama.

523
00:30:52,166 --> 00:30:54,335
In second place,

524
00:30:54,335 --> 00:30:56,638
Washington University in Saint Louis,

525

00:30:56,638 --> 00:30:59,641
Saint Louis, Missouri.

526
00:31:02,393 --> 00:31:04,412
And in first place,

527
00:31:04,412 --> 00:31:07,415
New York University, New York, New York.

528
00:31:11,135 --> 00:31:12,303
This award is accompanied

529
00:31:12,303 --> 00:31:15,290
by a $1,000 prize provided by a Double-A

530
00:31:16,040 --> 00:31:19,193
New York University, provided
excellent design and construction

531
00:31:19,193 --> 00:31:22,764
documentation
through each design milestone review.

532
00:31:23,481 --> 00:31:26,968
Their design packages
included decision matrices for materials

533
00:31:27,385 --> 00:31:32,040
component shapes and hardware options,
beautifully rendered CAD and stress

534
00:31:32,040 --> 00:31:35,310
modeling images
and detailed calculations and test data

535
00:31:35,310 --> 00:31:38,313
justifying their design and construction
methodologies.

536

00:31:38,546 --> 00:31:42,600
Their final product was within specs
and met all performance demands.

537
00:31:43,051 --> 00:31:45,470
Congratulations to New York University.

538
00:31:46,854 --> 00:31:48,740
Mr. Posen will also present the U.S.

539
00:31:48,740 --> 00:31:51,743
Ally Aid, a rookie award.

540
00:31:53,278 --> 00:31:54,295
NASA's student launch

541
00:31:54,295 --> 00:31:57,298
is a challenging competition,
requiring a large amount of work.

542
00:31:57,832 --> 00:32:01,502
Teams are tasked with designing,
building and launching a high powered

543
00:32:01,502 --> 00:32:05,757
amateur rocket and taking on
the experimental payload design challenge.

544
00:32:06,591 --> 00:32:10,011
Throughout the program, teams
also participate in milestone reviews

545
00:32:10,311 --> 00:32:14,482
that challenge both their technical
writing skills and presentation skills.

546
00:32:15,566 --> 00:32:18,720
All of this is an immense
undertaking for veteran teams

547
00:32:18,720 --> 00:32:21,456
in the competition,
so teams that are participating

548
00:32:21,456 --> 00:32:24,509
for the first time
may feel the strain even more.

549
00:32:25,443 --> 00:32:27,512
The rookie teams
that participated this year

550
00:32:27,512 --> 00:32:31,432
in our college and university division
deserve recognition for succeeding

551
00:32:31,683 --> 00:32:35,136
and making it through the rigors
of the NASA's student launch project.

552
00:32:36,054 --> 00:32:36,838
Each year.

553
00:32:36,838 --> 00:32:40,858
The most exceptional of these teams
are presented with the Rookie Award.

554
00:32:41,693 --> 00:32:43,344
Here are this year's winners.

555
00:32:45,980 --> 00:32:47,515
In third place

556
00:32:47,515 --> 00:32:50,301
is the University of Central Florida,
Orlando,

557
00:32:50,301 --> 00:32:53,304
Florida.

558
00:32:56,307 --> 00:32:57,141
Our second place

559
00:32:57,141 --> 00:33:00,445
rookie team is Angelo State University.

560
00:33:00,862 --> 00:33:03,865
San Angelo, Texas.

561
00:33:08,486 --> 00:33:10,221
And the winner

562
00:33:10,221 --> 00:33:13,374
is the United States
Military Academy, West Point,

563
00:33:13,374 --> 00:33:16,377
New York.

564
00:33:18,413 --> 00:33:21,899
The Rookie award is accompanied
by a $1,000 prize

565
00:33:21,899 --> 00:33:24,902
to the winning team provided by

566
00:33:24,936 --> 00:33:27,472
the United States
Military Academy, overcame

567
00:33:27,472 --> 00:33:30,541
great adversity this year as a new team

568
00:33:30,541 --> 00:33:33,961
with the added rigor and restrictions
of their service academy curriculum.

569

00:33:34,379 --> 00:33:36,831
The road to Huntsville
was a difficult one.

570
00:33:36,831 --> 00:33:39,600
They consistently persevered despite it

571
00:33:39,600 --> 00:33:43,671
providing quality design presentations,
performing multiple flight tests

572
00:33:44,038 --> 00:33:47,041
and completing their competition launch
in Huntsville successfully.

573
00:33:47,492 --> 00:33:50,661
Congratulations to the United States
Military Academy.

574
00:33:53,364 --> 00:33:53,698
Thank you.

575
00:33:53,698 --> 00:33:55,016
Mr. Polzin.

576
00:33:55,016 --> 00:33:58,019
Northrop Grumman is a long time
sponsor of Student Lot.

577
00:33:58,202 --> 00:34:01,172
Representing them
today is Jill Eskew, manager

578
00:34:01,172 --> 00:34:03,508
of the Marshall resident Management
Office.

579
00:34:03,508 --> 00:34:07,161
Ms.. Eskew will present the Solid Payload
Design Award and Slide

580
00:34:07,161 --> 00:34:08,396
Vehicle Design Award.

581
00:34:09,714 --> 00:34:10,565
Each year,

582
00:34:10,565 --> 00:34:14,185
Student launch teams, in addition
to a high powered rocket,

583
00:34:14,302 --> 00:34:18,172
must also design and build a scientific
or engineering payload.

584
00:34:18,773 --> 00:34:21,642
While the college and university or U.S.

585
00:34:21,642 --> 00:34:25,463
SLI division teams are tasked
with completing a predetermined

586
00:34:25,463 --> 00:34:29,333
payload mission
and given specific parameters, the Middle

587
00:34:29,333 --> 00:34:34,956
and High School or SLI division
teams have more flexibility easily.

588
00:34:34,956 --> 00:34:38,459
Teams can choose to complete the college
level payload challenge

589
00:34:38,793 --> 00:34:42,113
or design a scientific or engineering
payload of their own choosing.

590
00:34:42,747 --> 00:34:45,633

The best designed
and highest performing SLA

591
00:34:45,633 --> 00:34:48,986
payload is awarded
the Sally Payload Design Award.

592
00:34:49,470 --> 00:34:52,190
This year's winner of the 2023

593
00:34:52,190 --> 00:34:55,743
Sally Payload Design Award
goes to Portland Rocketry.

594
00:34:55,743 --> 00:34:58,746
Portland, Oregon.

595
00:34:59,330 --> 00:35:01,315
This prize is accompanied

596
00:35:01,315 --> 00:35:05,336
by $1,000 prize provided
by the National Space Club of Huntsville,

597
00:35:05,870 --> 00:35:10,458
Portland Rocketry designed and tested
novel approach to an air brake system.

598
00:35:10,475 --> 00:35:12,243
This competition season.

599
00:35:12,243 --> 00:35:16,013
Through multiple iterations,
the team revived refine the design,

600
00:35:16,230 --> 00:35:19,984
and ended the season with a nearly fully
3D printed system

601

00:35:20,184 --> 00:35:22,920
that they flew
at the competition in Huntsville.

602
00:35:22,920 --> 00:35:25,056
Congratulations to Portland Rocketry.

603
00:35:28,109 --> 00:35:29,093
Each year,

604
00:35:29,093 --> 00:35:33,481
student launch teams are tasked
with designing, building, testing

605
00:35:33,481 --> 00:35:35,066
and ultimately launching a high

606
00:35:35,066 --> 00:35:38,436
powered rocket carrying a scientific
or engineering payload.

607
00:35:38,970 --> 00:35:42,540
Teams declare the target altitude
at the beginning of the project year

608
00:35:42,740 --> 00:35:45,776
and work to design and build their rocket
and propulsion systems

609
00:35:45,927 --> 00:35:48,930
to meet this altitude
as closely as possible.

610
00:35:49,197 --> 00:35:51,833
A successful launch includes
a well-designed

611
00:35:51,833 --> 00:35:55,670
and well built vehicle
that launches to apogee and descends

612
00:35:55,670 --> 00:35:59,190
with a fully successful recovery system
in under 90 seconds.

613
00:35:59,790 --> 00:36:02,577
Upon landing, the rocket must be recovered

614
00:36:02,577 --> 00:36:06,080
and deemed reusable without modifications
or repairs.

615
00:36:06,531 --> 00:36:09,200
The SLC Vehicle Design Award is given

616
00:36:09,200 --> 00:36:12,687
to the Middle and High School
division team with the most innovative

617
00:36:12,687 --> 00:36:16,974
and challenging rocket design
that achieves a successful final launch.

618
00:36:17,725 --> 00:36:20,728
This year's winner of the 2023 SLI

619
00:36:20,728 --> 00:36:25,416
Vehicle Design Award goes to Yamhill
Carleton High School, Yamhill, Oregon.

620
00:36:27,485 --> 00:36:28,352
The winner of this

621
00:36:28,352 --> 00:36:33,057
award will receive a $1,000 prize
provided by the National Space Club

622
00:36:33,057 --> 00:36:37,195
of Huntsville, Yamhill carleton

Shoko based a strong understanding

623
00:36:37,195 --> 00:36:41,365
of the mathematics and engineering skills
essential to designing a rocket.

624
00:36:41,732 --> 00:36:43,734
They displayed these skills with detailed

625
00:36:43,734 --> 00:36:47,071
drawings, calculations
and CAD renderings in their reports.

626
00:36:47,488 --> 00:36:50,091
Their competition launch went beautifully

627
00:36:50,091 --> 00:36:53,644
and was a perfect summation of the effort
they put into their rocket.

628
00:36:54,028 --> 00:36:57,031
Congratulations to Yamhill Carleton
High School.

629
00:36:58,115 --> 00:36:59,667
Thank you, Mrs. Eskew.

630
00:36:59,667 --> 00:37:02,153
To present the Slide Judges Choice Award,

631
00:37:02,153 --> 00:37:06,324
we have another representative
of a long time student lunch sponsor, Mr.

632
00:37:06,324 --> 00:37:11,095
Terry Abell, the co-chair of education
for the National Space Club of Huntsville.

633
00:37:12,780 --> 00:37:15,366

Each year,
an outstanding team in the middle

634
00:37:15,366 --> 00:37:18,352
and high school division
with the best combination

635
00:37:18,352 --> 00:37:22,857
of all the aspects of the NASA Student
Launch project is awarded

636
00:37:22,857 --> 00:37:27,328
the Judges Choice Award,
The winning team stands out in areas

637
00:37:27,328 --> 00:37:31,349
including their report and documentation,
their presentation,

638
00:37:31,832 --> 00:37:35,102
their scientific
and experimental creativity,

639
00:37:35,636 --> 00:37:39,290
vehicle design and construction,
and STEM engagement.

640
00:37:40,174 --> 00:37:44,045
The winning team is selected
by the NASA's Student Launch Review panel.

641
00:37:45,263 --> 00:37:46,080
While all of the

642
00:37:46,080 --> 00:37:50,434
solid teams in this year's program rose
to the rigorous challenges of the project,

643
00:37:50,885 --> 00:37:54,388
here are the top three that showcased

exemplary efforts

644
00:37:54,689 --> 00:37:57,692
and performance in their overall project,

645
00:37:58,893 --> 00:38:00,845
finishing in third place.

646
00:38:00,845 --> 00:38:04,115
Ms.. Mania Robotics from El Cajon,

647
00:38:04,115 --> 00:38:07,101
Calif. Enya

648
00:38:07,952 --> 00:38:08,519
in second

649
00:38:08,519 --> 00:38:11,522
place, SEABROOK Intermediate School,

650
00:38:11,639 --> 00:38:14,642
SEABROOK, Texas.

651
00:38:16,043 --> 00:38:17,611
And in first place,

652
00:38:17,611 --> 00:38:20,998
Cedar Falls High School,
Cedar Falls, Iowa.

653
00:38:22,433 --> 00:38:24,869
This award comes with a $1,000 prize

654
00:38:24,869 --> 00:38:28,289
to the first place winner
from the National Space Club, Huntsville.

655
00:38:28,506 --> 00:38:32,493

Cedar Falls proved throughout the year
that they fully understood

656
00:38:32,493 --> 00:38:35,496
the expectations
of the student launch program.

657
00:38:36,147 --> 00:38:38,766
Their unique design's use of CAD

658
00:38:38,766 --> 00:38:43,921
modeling and an interesting
and novel UAV payload showcase

659
00:38:44,121 --> 00:38:47,158
just how much this team
put into their projects.

660
00:38:48,092 --> 00:38:49,460
Congratulations.

661
00:38:49,460 --> 00:38:51,028
Cedar Falls High School.

662
00:38:52,646 --> 00:38:54,782
We will now announce the second place

663
00:38:54,782 --> 00:38:58,536
winning team for NASA's
2023 Student Launch Challenge.

664
00:38:58,736 --> 00:39:00,721
To do so, we welcome back, Mr.

665
00:39:00,721 --> 00:39:02,690
Terry able

666
00:39:02,690 --> 00:39:05,459
to all of our winners today

and to all the teams

667
00:39:05,459 --> 00:39:08,462
who participated in this year's program.

668
00:39:08,512 --> 00:39:11,932
Your passion and dedication has not gone
unnoticed.

669
00:39:12,533 --> 00:39:17,521
It's my pleasure to the hard work
and the accomplishments of two such teams

670
00:39:17,938 --> 00:39:20,524
by announcing the third place
finishing team

671
00:39:20,524 --> 00:39:24,862
and presenting the Second Place
Winner award and the U.S.

672
00:39:24,862 --> 00:39:28,566
Ally Division of this year's
Nassar student launch.

673
00:39:30,117 --> 00:39:33,270
Finishing in third place is Vanderbilt
University,

674
00:39:33,604 --> 00:39:36,590
Nashville, Tennessee,

675
00:39:38,008 --> 00:39:40,761
and the 2023 student launch.

676
00:39:40,761 --> 00:39:45,983
Second place winner is the University
of North Carolina at Charlotte.

677

00:39:46,384 --> 00:39:48,836
Charlotte, North Carolina.

678
00:39:48,836 --> 00:39:52,740
The University of North Carolina
at Charlotte will receive a prize award

679
00:39:53,007 --> 00:39:57,294
of 20 $500 provided
by the National Space Club of Huntsville.

680
00:39:58,162 --> 00:40:02,700
This team's consistent hard work,
adherence to schedule and budget,

681
00:40:03,184 --> 00:40:08,305
excellent design and construction
methods and quality STEM outreach

682
00:40:08,305 --> 00:40:12,993
activities are just a part
of their amazing performance all season.

683
00:40:14,278 --> 00:40:15,413
Congratulations to the

684
00:40:15,413 --> 00:40:18,416
University of North Carolina at Charlotte.

685
00:40:19,283 --> 00:40:20,551
Thank you, Mr. Abell.

686
00:40:20,551 --> 00:40:21,786
And now Ms..

687
00:40:21,786 --> 00:40:25,139
Kay Anderson, the manager
of communications for Northrop Grumman,

688

00:40:25,406 --> 00:40:28,859
will announce
the overall winner of NASA's 2023

689
00:40:28,859 --> 00:40:31,862
student launch challenge

690
00:40:32,096 --> 00:40:35,816
over the course to the student launch
program team spent thousands of hours

691
00:40:35,816 --> 00:40:40,654
designing, simulating building, testing
and launching their rockets and payloads.

692
00:40:41,071 --> 00:40:44,074
A tremendous amount of work
and effort goes into their project,

693
00:40:44,158 --> 00:40:47,428
and they have worked diligently,
tirelessly toward their goals,

694
00:40:47,661 --> 00:40:50,664
competing at the highest level
of rocketry competition.

695
00:40:50,698 --> 00:40:52,583
We are honored
to recognize the achievement

696
00:40:52,583 --> 00:40:55,586
that every student launch team
has made here today.

697
00:40:55,653 --> 00:40:59,690
It is now my privilege to announce
the team that exemplified the 2023

698
00:40:59,940 --> 00:41:03,861

NASA's student launch challenge and rose
to the top in their project performance.

699
00:41:04,712 --> 00:41:09,416
The winner of the 2023 NASA's Student
launch US Ally Competition

700
00:41:09,416 --> 00:41:13,554
is the University of Alabama
in Huntsville, Huntsville, Alabama.

701
00:41:14,855 --> 00:41:16,223
The 2023 NASA's

702
00:41:16,223 --> 00:41:19,677
student launch winner
will receive a monetary prize of $5,000.

703
00:41:20,194 --> 00:41:23,013
The University of Alabama
in Huntsville exemplify

704
00:41:23,013 --> 00:41:26,000
what it means to be a well-rounded
and disciplined team,

705
00:41:26,183 --> 00:41:28,836
a combination of great design
work, construction

706
00:41:28,836 --> 00:41:32,306
methodologies, STEM engagement,
safety practices,

707
00:41:32,690 --> 00:41:35,392
and perhaps most critical to their success
this season.

708
00:41:35,392 --> 00:41:39,146
Testing

allowed you to succeed at every milestone.

709
00:41:39,713 --> 00:41:42,983
Their competition, flight
and payload performance were spectacular

710
00:41:43,200 --> 00:41:46,070
and ultimately prove their quality
and dedication.

711
00:41:46,070 --> 00:41:49,073
Congratulations, UAH.

712
00:41:49,406 --> 00:41:50,124
Thank you, Mrs.

713
00:41:50,124 --> 00:41:53,644
Anderson, and congratulations
to the University of Alabama

714
00:41:53,644 --> 00:41:56,764
in Huntsville and congratulations
to all the teams.

715
00:41:56,764 --> 00:41:59,583
Your achievements are truly incredible.

716
00:41:59,583 --> 00:42:03,804
To conclude today's award ceremony with
NASA's final remarks, we welcome back.

717
00:42:03,804 --> 00:42:05,489
Another Familiar face.

718
00:42:05,489 --> 00:42:08,375
Mr. John Eckhardt, education
specialist with student

719
00:42:08,375 --> 00:42:11,362

launch representing Guardians of Honor.

720
00:42:12,112 --> 00:42:12,513
Thank you.

721
00:42:12,513 --> 00:42:17,935
Laine It is my honor to close out the 2023
NASA's student launch activity.

722
00:42:18,569 --> 00:42:22,773
I want to start by thanking all of our
sponsors and supporting organizations.

723
00:42:23,190 --> 00:42:27,411
Student launch would not be possible
without the support of the NASA's next gen

724
00:42:27,411 --> 00:42:30,414
STEM project, the NASA's Space Operations

725
00:42:30,414 --> 00:42:34,585
Mission Directorate, Northrop Grumman,
National Space

726
00:42:34,585 --> 00:42:38,105
Club, Huntsville,
the National Association of Rocketry.

727
00:42:38,706 --> 00:42:41,692
The American Institute of Aeronautics
and Astronautics,

728
00:42:41,909 --> 00:42:47,731
Relativity, Space Bastion Technologies
and Siemens Digital Industries Software.

729
00:42:48,966 --> 00:42:51,502
I would
also like to thank all of the volunteers

730
00:42:51,502 --> 00:42:55,022
who helped support Milestone
reviews and launch week activities.

731
00:42:55,806 --> 00:42:59,510
A special thank you to the Range Safety
Officer John Lindahl

732
00:42:59,843 --> 00:43:03,964
for assisting in all of the design reviews
and launch planning execution.

733
00:43:04,949 --> 00:43:09,453
A huge thanks to our activity
lead Fred Kepner along with our management

734
00:43:09,453 --> 00:43:13,073
team, Allison Chouinard, Zachary Cook,

735
00:43:13,741 --> 00:43:16,744
Andrew Toomey and Tyler Sprague.

736
00:43:17,428 --> 00:43:20,431
Thank you to our communications
team, Chris and Lane,

737
00:43:20,481 --> 00:43:24,084
for constantly sharing the hard work
our teams were doing throughout the year.

738
00:43:24,935 --> 00:43:29,790
Most of all, I want to thank you
the students and team mentors.

739
00:43:30,324 --> 00:43:33,694
Without your hard work and dedication
for the past nine months,

740
00:43:34,011 --> 00:43:37,014

NASA's student
launch would not be possible.

741
00:43:37,431 --> 00:43:41,819
Our team thoroughly enjoyed
meeting with you during your design review

742
00:43:41,819 --> 00:43:45,689
presentations to hear your unique
payload and vehicle ideas.

743
00:43:46,707 --> 00:43:49,677
It was energizing
to interact with the teams who traveled

744
00:43:49,677 --> 00:43:52,730
to Huntsville
for our culminating launch event.

745
00:43:53,931 --> 00:43:55,916
Regardless of the results today,

746
00:43:55,916 --> 00:43:59,870
all of you should be incredibly proud
for completing this rigorous project.

747
00:44:00,654 --> 00:44:03,724
We hope you take some time
to reflect on the knowledge and skills

748
00:44:03,724 --> 00:44:06,894
you have gained, the challenges
and setbacks you overcame,

749
00:44:07,378 --> 00:44:10,731
and the importance
of what it means to be a part of a team.

750
00:44:11,315 --> 00:44:14,034
These are life's skills.

751
00:44:14,034 --> 00:44:16,737
They will help you
as you continue in your studies

752
00:44:16,737 --> 00:44:19,740
or as you transition
into your professional careers.

753
00:44:19,940 --> 00:44:25,346
Remember, you are the future of Naza
Aerospace and STEM,

754
00:44:25,863 --> 00:44:29,750
and I can confidently say
we are in good hands.

755
00:44:30,484 --> 00:44:33,470
Once again,
congratulations to all of our winners.