

ANNUAL CHALLENGE



1
00:00:12,310 --> 00:00:10,230
well good morning everyone and welcome

2
00:00:13,830 --> 00:00:12,320
my name is dennis berkey and i have the

3
00:00:14,950 --> 00:00:13,840
high honor and great privilege of

4
00:00:16,390 --> 00:00:14,960
serving as

5
00:00:18,790 --> 00:00:16,400
president and ceo of worcester

6
00:00:20,950 --> 00:00:18,800
polytechnic institute i want to start

7
00:00:22,630 --> 00:00:20,960
this morning by saying personally how

8
00:00:25,670 --> 00:00:22,640
pleased i am

9
00:00:27,990 --> 00:00:25,680
that we can have so many of you here to

10
00:00:30,310 --> 00:00:28,000
celebrate not only the

11
00:00:32,630 --> 00:00:30,320
very important work that nasa continues

12
00:00:34,790 --> 00:00:32,640
to do for us in this nation but the

13
00:00:37,750 --> 00:00:34,800

celebration of science and technology

14

00:00:40,470 --> 00:00:37,760

and especially education it is a

15

00:00:43,350 --> 00:00:40,480

wonderful partnership that we enjoy with

16

00:00:46,229 --> 00:00:43,360

nasa in committing to help

17

00:00:49,510 --> 00:00:46,239

future generations of scientists and

18

00:00:52,470 --> 00:00:49,520

engineers and astronauts and leaders of

19

00:00:53,910 --> 00:00:52,480

industry understand just how important

20

00:00:56,229 --> 00:00:53,920

science and mathematics and

21

00:00:58,229 --> 00:00:56,239

technological education is

22

00:01:01,189 --> 00:00:58,239

to their intellectual platform that they

23

00:01:03,590 --> 00:01:01,199

will use to proceed to be highly

24

00:01:06,070 --> 00:01:03,600

productive and very strong in leadership

25

00:01:08,550 --> 00:01:06,080

for the nation so it's a great pleasure

26
00:01:10,469 --> 00:01:08,560
to welcome all of you we certainly want

27
00:01:13,910 --> 00:01:10,479
to welcome our distinguished guests from

28
00:01:16,310 --> 00:01:13,920
nasa including many nasa educators

29
00:01:18,230 --> 00:01:16,320
participating in this festival and

30
00:01:19,749 --> 00:01:18,240
others on the podium who will be more

31
00:01:20,710 --> 00:01:19,759
formally introduced in just a few

32
00:01:22,310 --> 00:01:20,720
minutes

33
00:01:24,830 --> 00:01:22,320
i want to welcome our political

34
00:01:27,749 --> 00:01:24,840
delegation including guests on the

35
00:01:30,230 --> 00:01:27,759
platform and our state senators harriet

36
00:01:32,789 --> 00:01:30,240
chandler and karen spilka and

37
00:01:34,469 --> 00:01:32,799
representative harold naughton

38
00:01:37,190 --> 00:01:34,479

i want to welcome the many worcester

39

00:01:39,510 --> 00:01:37,200

area business leaders and presidents and

40

00:01:41,749 --> 00:01:39,520

staffs from the other colleges and

41

00:01:44,069 --> 00:01:41,759

universities of our city

42

00:01:46,149 --> 00:01:44,079

a special welcome to melinda boone the

43

00:01:49,429 --> 00:01:46,159

superintendent of the worcester public

44

00:01:51,429 --> 00:01:49,439

schools and to many other educators

45

00:01:54,389 --> 00:01:51,439

committed parents and students for

46

00:01:57,030 --> 00:01:54,399

making time in your schedule today

47

00:01:59,270 --> 00:01:57,040

we are honored at wpi to be the first

48

00:02:00,709 --> 00:01:59,280

university to host a centennial

49

00:02:03,030 --> 00:02:00,719

challenge

50

00:02:05,830 --> 00:02:03,040

demonstrating important partnerships of

51
00:02:07,990 --> 00:02:05,840
universities and federal agencies to

52
00:02:09,190 --> 00:02:08,000
work together to solve important

53
00:02:11,910 --> 00:02:09,200
problems

54
00:02:15,350 --> 00:02:11,920
i want to say especially about nasa how

55
00:02:18,390 --> 00:02:15,360
much we at wpi appreciate not only their

56
00:02:20,390 --> 00:02:18,400
leadership in space exploration

57
00:02:23,030 --> 00:02:20,400
and the ways they have been

58
00:02:25,589 --> 00:02:23,040
so encouraging and so inspiring to

59
00:02:27,350 --> 00:02:25,599
generations now of young people in this

60
00:02:30,630 --> 00:02:27,360
country but for the enormous

61
00:02:33,750 --> 00:02:30,640
technological contributions that the

62
00:02:36,390 --> 00:02:33,760
agency has made to our daily lives the

63
00:02:39,430 --> 00:02:36,400

technological advances that many of us

64

00:02:41,350 --> 00:02:39,440

just don't realize come out of the high

65

00:02:44,869 --> 00:02:41,360

intensity work that is done by this

66

00:02:46,710 --> 00:02:44,879

agency it is a vitally important arm of

67

00:02:48,229 --> 00:02:46,720

the nation's advance and we're so proud

68

00:02:49,430 --> 00:02:48,239

to have our nasa colleagues with us

69

00:02:52,229 --> 00:02:49,440

today

70

00:02:55,110 --> 00:02:52,239

nasa has asked wpi not only to host this

71

00:02:57,670 --> 00:02:55,120

competition but to create a destination

72

00:02:59,589 --> 00:02:57,680

for younger populations to engage with

73

00:03:01,830 --> 00:02:59,599

the possibilities of science and

74

00:03:03,910 --> 00:03:01,840

engineering and we feel uniquely

75

00:03:07,270 --> 00:03:03,920

positioned to bring the robotics

76

00:03:09,830 --> 00:03:07,280

expertise and stem education component

77

00:03:12,309 --> 00:03:09,840

uh very prominently into the center

78

00:03:14,390 --> 00:03:12,319

stage for today's activities

79

00:03:16,869 --> 00:03:14,400

i want to begin by introducing and

80

00:03:18,630 --> 00:03:16,879

inviting to the podium our congressman

81

00:03:20,149 --> 00:03:18,640

james mcgovern

82

00:03:21,990 --> 00:03:20,159

jim has represented our third

83

00:03:23,750 --> 00:03:22,000

congressional district in massachusetts

84

00:03:26,550 --> 00:03:23,760

since 1996.

85

00:03:29,270 --> 00:03:26,560

he is a tireless advocate for his

86

00:03:32,630 --> 00:03:29,280

district and for the nation and

87

00:03:34,710 --> 00:03:32,640

certainly is a great friend of wpi he's

88

00:03:36,470 --> 00:03:34,720

passionate about this economic recovery

89

00:03:39,110 --> 00:03:36,480

and job development in central

90

00:03:41,350 --> 00:03:39,120

massachusetts he's authored legislation

91

00:03:43,750 --> 00:03:41,360

in support of pell grants to provide

92

00:03:46,470 --> 00:03:43,760

crucial financial resources to allow

93

00:03:48,550 --> 00:03:46,480

young people to pursue higher education

94

00:03:50,550 --> 00:03:48,560

two of his sisters are school teachers

95

00:03:52,550 --> 00:03:50,560

in the worcester public school system

96

00:03:54,789 --> 00:03:52,560

today's activities resonate very

97

00:03:56,710 --> 00:03:54,799

strongly with jim's hope for a better

98

00:03:58,869 --> 00:03:56,720

future for the children and for his

99

00:04:03,830 --> 00:03:58,879

constituencies it's a great pleasure to

100

00:04:03,840 --> 00:04:07,030

thank you

101
00:04:11,190 --> 00:04:08,789
well let me thank my friend dennis

102
00:04:13,030 --> 00:04:11,200
berkey for the great introduction and i

103
00:04:14,550 --> 00:04:13,040
want to thank him and all my friends at

104
00:04:16,789 --> 00:04:14,560
wpi for

105
00:04:17,990 --> 00:04:16,799
inviting me to participate in today's

106
00:04:20,150 --> 00:04:18,000
events

107
00:04:21,990 --> 00:04:20,160
i'm pleased to see so many innovators

108
00:04:24,870 --> 00:04:22,000
gathered here to showcase their robotic

109
00:04:26,550 --> 00:04:24,880
creations and compete for prizes i

110
00:04:29,110 --> 00:04:26,560
welcome you and i hope that you all

111
00:04:30,950 --> 00:04:29,120
enjoy our city if you're not from here

112
00:04:33,350 --> 00:04:30,960
and i hope that you enjoy all of this

113
00:04:35,510 --> 00:04:33,360

great city has to offer

114

00:04:37,670 --> 00:04:35,520

i want to thank wpi

115

00:04:39,110 --> 00:04:37,680

again for hosting the nasa centennial

116

00:04:41,590 --> 00:04:39,120

challenges weekend

117

00:04:42,710 --> 00:04:41,600

wpi is a world-class research

118

00:04:45,590 --> 00:04:42,720

institution

119

00:04:48,230 --> 00:04:45,600

located in my hometown so i take credit

120

00:04:50,390 --> 00:04:48,240

for everywhere i go

121

00:04:52,230 --> 00:04:50,400

through its cutting-edge programs wpi

122

00:04:53,749 --> 00:04:52,240

helps to attract some of the brightest

123

00:04:56,310 --> 00:04:53,759

students in the country

124

00:04:57,590 --> 00:04:56,320

to right here in central massachusetts

125

00:04:59,670 --> 00:04:57,600

and it's working

126

00:05:01,909 --> 00:04:59,680

this area is quickly becoming a hub for

127

00:05:04,230 --> 00:05:01,919

some of the uh for some of the robotics

128

00:05:07,189 --> 00:05:04,240

uh industry feature here today video

129

00:05:10,150 --> 00:05:07,199

game design biotechnology and many more

130

00:05:11,749 --> 00:05:10,160

technologically innovative startups as

131

00:05:13,830 --> 00:05:11,759

the first university of the country to

132

00:05:16,550 --> 00:05:13,840

offer a bachelor's degree program in

133

00:05:18,230 --> 00:05:16,560

robotics engineering wpi is a

134

00:05:20,469 --> 00:05:18,240

particularly well-suited venue to

135

00:05:21,749 --> 00:05:20,479

showcase these

136

00:05:23,430 --> 00:05:21,759

creations

137

00:05:25,430 --> 00:05:23,440

i want to thank nasa deputy

138

00:05:27,189 --> 00:05:25,440

administrator laurie yarber

139

00:05:29,189 --> 00:05:27,199

and other nasa officials are traveling

140

00:05:31,189 --> 00:05:29,199

to washington today to participate in

141

00:05:33,350 --> 00:05:31,199

the competition i want to thank mason

142

00:05:35,510 --> 00:05:33,360

peck the nasa chief technology

143

00:05:36,710 --> 00:05:35,520

technologist who's here who i was kind

144

00:05:38,150 --> 00:05:36,720

enough to come out of my office in

145

00:05:40,469 --> 00:05:38,160

washington a couple of days ago kind of

146

00:05:41,749 --> 00:05:40,479

briefly on a lot of the things that nasa

147

00:05:43,670 --> 00:05:41,759

is involved with

148

00:05:44,950 --> 00:05:43,680

we are exceptionally lucky to have one

149

00:05:47,350 --> 00:05:44,960

of our nation's most treasured

150

00:05:49,670 --> 00:05:47,360

organizations supporting strong math and

151
00:05:52,070 --> 00:05:49,680
science education and research at every

152
00:05:52,950 --> 00:05:52,080
level from elementary schools to higher

153
00:05:54,950 --> 00:05:52,960
ed

154
00:05:57,029 --> 00:05:54,960
additionally nasa is doing some truly

155
00:05:59,270 --> 00:05:57,039
groundbreaking research that has real

156
00:06:00,550 --> 00:05:59,280
world applications and touches all of

157
00:06:02,629 --> 00:06:00,560
our lives

158
00:06:04,469 --> 00:06:02,639
i believe that as we work to compete in

159
00:06:06,390 --> 00:06:04,479
a more globalized world

160
00:06:08,390 --> 00:06:06,400
investments in aerospace technology

161
00:06:10,629 --> 00:06:08,400
are more important than ever these

162
00:06:12,629 --> 00:06:10,639
technological investments have led to

163
00:06:15,029 --> 00:06:12,639

efficiency improvements in ground and

164

00:06:17,110 --> 00:06:15,039

air transportation improved biomedical

165

00:06:19,430 --> 00:06:17,120

applications and have even supported the

166

00:06:20,790 --> 00:06:19,440

creation of cameras found in our cell

167

00:06:22,469 --> 00:06:20,800

phones

168

00:06:24,070 --> 00:06:22,479

companies throughout massachusetts have

169

00:06:25,990 --> 00:06:24,080

partnered with nasa to develop and

170

00:06:28,469 --> 00:06:26,000

improve technology that assist the

171

00:06:30,469 --> 00:06:28,479

surgeries insulate people and materials

172

00:06:33,110 --> 00:06:30,479

against extreme temperatures and help

173

00:06:35,909 --> 00:06:33,120

u.s troops in iraq and afghanistan clear

174

00:06:37,430 --> 00:06:35,919

caves and bunkers search buildings and

175

00:06:39,830 --> 00:06:37,440

deal with the dangers posed by

176
00:06:41,350 --> 00:06:39,840
improvised explosive devices

177
00:06:43,029 --> 00:06:41,360
these advancements

178
00:06:45,110 --> 00:06:43,039
and the research that you were

179
00:06:47,270 --> 00:06:45,120
displaying here today can lead to

180
00:06:49,350 --> 00:06:47,280
innovative discoveries and will advance

181
00:06:50,390 --> 00:06:49,360
our scientific knowledge in ways we may

182
00:06:51,749 --> 00:06:50,400
not even

183
00:06:56,230 --> 00:06:51,759
imagine

184
00:06:57,749 --> 00:06:56,240
companies and go to a lot of conferences

185
00:06:58,710 --> 00:06:57,759
in massachusetts and throughout the

186
00:07:01,110 --> 00:06:58,720
country

187
00:07:02,950 --> 00:07:01,120
but there is little that i do that is as

188
00:07:05,189 --> 00:07:02,960

exciting as this event

189

00:07:07,110 --> 00:07:05,199

which gives us a glimpse of the tomorrow

190

00:07:08,230 --> 00:07:07,120

that's being built by the trailblazers

191

00:07:10,790 --> 00:07:08,240

of today

192

00:07:13,189 --> 00:07:10,800

and let me just say one final thing i

193

00:07:15,589 --> 00:07:13,199

think we all and i we all and i include

194

00:07:17,589 --> 00:07:15,599

myself in that we all

195

00:07:20,150 --> 00:07:17,599

need to do a better job about talking

196

00:07:21,830 --> 00:07:20,160

about the importance of nasa to uh

197

00:07:25,510 --> 00:07:21,840

constituencies that may not quite

198

00:07:28,629 --> 00:07:25,520

understand what nasa nasa does

199

00:07:30,870 --> 00:07:28,639

it is it is more than

200

00:07:32,710 --> 00:07:30,880

rockets and start to correct in star

201
00:07:34,790 --> 00:07:32,720
wars uh it is as i mentioned and

202
00:07:37,830 --> 00:07:34,800
president berkey mentioned a whole bunch

203
00:07:40,390 --> 00:07:37,840
of very localized uh advancements that

204
00:07:42,790 --> 00:07:40,400
we all pretty much take for granted

205
00:07:45,270 --> 00:07:42,800
and when we cut back uh on that

206
00:07:47,670 --> 00:07:45,280
investment um we cut back not only on

207
00:07:49,270 --> 00:07:47,680
the chance that we will develop more

208
00:07:52,070 --> 00:07:49,280
advancements

209
00:07:54,230 --> 00:07:52,080
but we also put ourselves at an economic

210
00:07:56,710 --> 00:07:54,240
disadvantage

211
00:07:58,309 --> 00:07:56,720
i'm not an engineer

212
00:08:00,710 --> 00:07:58,319
i've looked at i've seen some of the

213
00:08:02,869 --> 00:08:00,720

exhibits i can't begin to understand

214

00:08:05,189 --> 00:08:02,879

what these exhibits uh entail to put

215

00:08:07,510 --> 00:08:05,199

together but i do know this as a member

216

00:08:09,830 --> 00:08:07,520

of congress i want very much to see our

217

00:08:11,830 --> 00:08:09,840

economy grow i want more people working

218

00:08:13,510 --> 00:08:11,840

i want to see our manufacturing

219

00:08:15,670 --> 00:08:13,520

back up and running again

220

00:08:18,070 --> 00:08:15,680

and i know enough

221

00:08:19,589 --> 00:08:18,080

of what i've seen here today and what

222

00:08:21,189 --> 00:08:19,599

i've seen over the years here at this

223

00:08:22,230 --> 00:08:21,199

university

224

00:08:24,629 --> 00:08:22,240

that

225

00:08:28,230 --> 00:08:24,639

the key to the future of our economy is

226

00:08:30,629 --> 00:08:28,240

right here uh and so we need to do those

227

00:08:32,469 --> 00:08:30,639

investments when mason was by my office

228

00:08:34,550 --> 00:08:32,479

uh you know i was telling him that

229

00:08:36,070 --> 00:08:34,560

sometimes people ask me why do we spend

230

00:08:38,790 --> 00:08:36,080

so much money in outer space why don't

231

00:08:40,709 --> 00:08:38,800

we spend more money right here on earth

232

00:08:42,630 --> 00:08:40,719

and he had a great response he said we

233

00:08:46,070 --> 00:08:42,640

don't spend any money in our space we do

234

00:08:47,110 --> 00:08:46,080

spend it all here on earth and research

235

00:08:50,230 --> 00:08:47,120

grants

236

00:08:53,030 --> 00:08:50,240

and you know and and and developing

237

00:08:55,910 --> 00:08:53,040

parts for you know whether it's the

238

00:08:57,430 --> 00:08:55,920

space shuttle or or uh you know our

239

00:08:59,590 --> 00:08:57,440

devices that we're going to use to do

240

00:09:02,070 --> 00:08:59,600

our space exploration those things put

241

00:09:04,070 --> 00:09:02,080

people to work right here you know let's

242

00:09:05,030 --> 00:09:04,080

let's we need to better connect those

243

00:09:09,110 --> 00:09:05,040

dots

244

00:09:11,430 --> 00:09:09,120

uh and so i'm i'm reinvigorated by what

245

00:09:12,790 --> 00:09:11,440

i see here so that when i go across my

246

00:09:15,430 --> 00:09:12,800

district talking to various business

247

00:09:18,230 --> 00:09:15,440

groups i will incorporate robotics and

248

00:09:22,870 --> 00:09:18,240

the importance of nasa uh in my in my in

249

00:09:25,350 --> 00:09:22,880

my conversation uh so i am very grateful

250

00:09:27,990 --> 00:09:25,360

uh that this is happening here today

251
00:09:29,910 --> 00:09:28,000
and um i i'm

252
00:09:31,190 --> 00:09:29,920
grateful to all of you for inviting me

253
00:09:33,350 --> 00:09:31,200
to participate

254
00:09:36,070 --> 00:09:33,360
uh i look forward to learning more about

255
00:09:37,990 --> 00:09:36,080
your projects uh and more about ways

256
00:09:39,590 --> 00:09:38,000
that we can marry the stuff that we're

257
00:09:40,550 --> 00:09:39,600
talking about here today to our public

258
00:09:43,269 --> 00:09:40,560
schools

259
00:09:46,310 --> 00:09:43,279
and to our colleges as well uh because

260
00:09:48,230 --> 00:09:46,320
uh stem education is vitally important

261
00:09:49,269 --> 00:09:48,240
uh if this economy is gonna remain

262
00:09:52,310 --> 00:09:49,279
number one

263
00:09:53,829 --> 00:09:52,320

and we have a lot of work to do but this

264

00:09:56,710 --> 00:09:53,839

is an exciting day

265

00:10:05,590 --> 00:09:56,720

and i am very grateful to all of you who

266

00:10:09,430 --> 00:10:07,829

thanks jim for your optimism and your

267

00:10:10,949 --> 00:10:09,440

passion and your leadership all very

268

00:10:12,710 --> 00:10:10,959

much appreciate it

269

00:10:16,310 --> 00:10:12,720

it's now a great pleasure to introduce

270

00:10:18,949 --> 00:10:16,320

miss laurie garver who's the nasa deputy

271

00:10:21,509 --> 00:10:18,959

administrator let me interpret that for

272

00:10:23,509 --> 00:10:21,519

you she's the number two person in nasa

273

00:10:26,550 --> 00:10:23,519

the chief executive of nasa is referred

274

00:10:28,150 --> 00:10:26,560

to as the administrator uh i guess in an

275

00:10:30,630 --> 00:10:28,160

act of humility

276

00:10:32,310 --> 00:10:30,640

but we are so honored to have her today

277

00:10:34,630 --> 00:10:32,320

it's a great pleasure to bring her

278

00:10:37,590 --> 00:10:34,640

forward she was nominated by president

279

00:10:39,430 --> 00:10:37,600

obama confirmed by the senate in 2009

280

00:10:42,630 --> 00:10:39,440

she provides leadership planning and

281

00:10:46,710 --> 00:10:42,640

policy direction for the agency she

282

00:10:49,190 --> 00:10:46,720

worked for nasa from 1996 to 2001

283

00:10:51,030 --> 00:10:49,200

prior to her current appointment serving

284

00:10:53,750 --> 00:10:51,040

as a special assistant to the nasa

285

00:10:56,230 --> 00:10:53,760

administrator and senior policy analyst

286

00:10:57,990 --> 00:10:56,240

for the office of policy and plans she

287

00:11:00,389 --> 00:10:58,000

was then named associate administrator

288

00:11:02,870 --> 00:11:00,399

for the office of policy and plans

289

00:11:04,389 --> 00:11:02,880

ms garber is a michigan native she took

290

00:11:06,310 --> 00:11:04,399

her bachelor's degree in political

291

00:11:08,870 --> 00:11:06,320

science and economics from colorado

292

00:11:11,670 --> 00:11:08,880

college she became interested in space

293

00:11:14,389 --> 00:11:11,680

when she began working for senator john

294

00:11:16,150 --> 00:11:14,399

glenn from my home state of ohio

295

00:11:17,509 --> 00:11:16,160

in 1983.

296

00:11:19,590 --> 00:11:17,519

her career has been long and

297

00:11:21,910 --> 00:11:19,600

distinguished with her two tours of duty

298

00:11:24,230 --> 00:11:21,920

for nasa as well as time in the private

299

00:11:25,910 --> 00:11:24,240

sector between those two stints it's a

300

00:11:27,990 --> 00:11:25,920

great pleasure to have her with us this

301
00:11:35,350 --> 00:11:28,000
morning and i invite her to speak to you

302
00:11:39,750 --> 00:11:37,590
thank you very much president it is

303
00:11:41,829 --> 00:11:39,760
fabulous to be here

304
00:11:46,069 --> 00:11:41,839
with your polytechnic institute it is my

305
00:11:48,230 --> 00:11:46,079
first time uh to this uh institute and

306
00:11:50,230 --> 00:11:48,240
how wonderful to

307
00:11:52,470 --> 00:11:50,240
already uh by this time of day on a

308
00:11:55,110 --> 00:11:52,480
saturday morning we've been able to meet

309
00:11:57,670 --> 00:11:55,120
with all of the teams and

310
00:12:00,069 --> 00:11:57,680
address all of you talking with uh the

311
00:12:02,150 --> 00:12:00,079
congressman i believe that it is already

312
00:12:03,190 --> 00:12:02,160
a very worthwhile morning to be able to

313
00:12:05,509 --> 00:12:03,200

see

314

00:12:06,230 --> 00:12:05,519

elected members

315

00:12:08,550 --> 00:12:06,240

who

316

00:12:11,269 --> 00:12:08,560

recognize the value of what it is that

317

00:12:13,269 --> 00:12:11,279

nasa does is an incredible thing and

318

00:12:15,670 --> 00:12:13,279

allows i think all of us and the

319

00:12:17,910 --> 00:12:15,680

university to be able to advance to

320

00:12:20,550 --> 00:12:17,920

those next great challenges so nasa is

321

00:12:23,269 --> 00:12:20,560

all about uh addressing challenges right

322

00:12:26,150 --> 00:12:23,279

we were founded in 1958 to address the

323

00:12:27,750 --> 00:12:26,160

challenge after sputnik and uh our

324

00:12:30,870 --> 00:12:27,760

challenge by president kennedy to go to

325

00:12:33,430 --> 00:12:30,880

the moon was really to have our nation

326

00:12:36,389 --> 00:12:33,440

lead in the technological areas that

327

00:12:39,590 --> 00:12:36,399

have made this country this university

328

00:12:41,670 --> 00:12:39,600

uh great and nasa continues with these

329

00:12:44,069 --> 00:12:41,680

challenges while they have changed while

330

00:12:46,389 --> 00:12:44,079

we were all about beating the soviet

331

00:12:49,269 --> 00:12:46,399

union back in the 60s our challenge

332

00:12:51,269 --> 00:12:49,279

today is working internationally in

333

00:12:53,910 --> 00:12:51,279

peaceful ways with the russians on the

334

00:12:55,829 --> 00:12:53,920

international space station we have had

335

00:12:57,990 --> 00:12:55,839

the international space station with

336

00:13:00,230 --> 00:12:58,000

astronauts permanently working and

337

00:13:03,750 --> 00:13:00,240

living in space for over 11 years now

338

00:13:07,110 --> 00:13:03,760

with 15 different nations including the

339

00:13:09,430 --> 00:13:07,120

us and the uh former soviet union the

340

00:13:12,389 --> 00:13:09,440

russians i just want to highlight that

341

00:13:15,030 --> 00:13:12,399

we have two such astronauts here today

342

00:13:18,069 --> 00:13:15,040

lee morin who is uh showing off his

343

00:13:19,670 --> 00:13:18,079

astronaut status i'm sure we made him at

344

00:13:20,470 --> 00:13:19,680

nasa headquarters so thank you for

345

00:13:22,710 --> 00:13:20,480

wearing

346

00:13:25,030 --> 00:13:22,720

uh your blue suit astronaut and chris

347

00:13:26,550 --> 00:13:25,040

ferguson who uh is now with boeing who

348

00:13:29,030 --> 00:13:26,560

you'll hear from later but also an

349

00:13:31,509 --> 00:13:29,040

astronaut so i know lots of you want to

350

00:13:33,509 --> 00:13:31,519

grow up to be astronauts and i'm here to

351

00:13:35,990 --> 00:13:33,519

tell you that while my political science

352

00:13:38,710 --> 00:13:36,000

and economics degree didn't get me uh to

353

00:13:39,509 --> 00:13:38,720

be an astronaut i do get to work at nasa

354

00:13:41,110 --> 00:13:39,519

and

355

00:13:42,150 --> 00:13:41,120

i say if you

356

00:13:46,230 --> 00:13:42,160

want to

357

00:13:47,750 --> 00:13:46,240

work in space and in space and those

358

00:13:49,189 --> 00:13:47,760

activities that we're doing that are

359

00:13:51,829 --> 00:13:49,199

such great value

360

00:13:53,350 --> 00:13:51,839

go get one of those stem degrees uh or

361

00:13:54,629 --> 00:13:53,360

and i don't normally say this in front

362

00:13:56,710 --> 00:13:54,639

of congress get a political science

363

00:13:58,150 --> 00:13:56,720

degree and come up with conflict but it

364

00:14:02,870 --> 00:13:58,160

is

365

00:14:05,110 --> 00:14:02,880

are all about providing that value to

366

00:14:07,110 --> 00:14:05,120

the public and keeping this nation on

367

00:14:08,629 --> 00:14:07,120

the cutting edge and driving innovation

368

00:14:10,470 --> 00:14:08,639

and technology to keep us in a

369

00:14:13,750 --> 00:14:10,480

leadership position nasa is doing that

370

00:14:16,870 --> 00:14:13,760

today in new ways and new partnerships

371

00:14:18,949 --> 00:14:16,880

you have most recently seen the dragon

372

00:14:21,110 --> 00:14:18,959

spacecraft docked to the international

373

00:14:23,110 --> 00:14:21,120

space station we have a competition

374

00:14:25,110 --> 00:14:23,120

right now for not only

375

00:14:27,189 --> 00:14:25,120

providing that cargo to international

376

00:14:29,269 --> 00:14:27,199

space station but also our precious

377

00:14:30,949 --> 00:14:29,279

astronauts uh over

378

00:14:32,069 --> 00:14:30,959

the next

379

00:14:33,829 --> 00:14:32,079

at least

380

00:14:35,269 --> 00:14:33,839

eight years of the space station we will

381

00:14:38,389 --> 00:14:35,279

have our international space station

382

00:14:40,629 --> 00:14:38,399

until 2020 and as we are

383

00:14:43,829 --> 00:14:40,639

spending less on those transportation

384

00:14:47,110 --> 00:14:43,839

needs to low-earth orbit for nasa we're

385

00:14:50,470 --> 00:14:47,120

investing in rockets and spacecraft that

386

00:14:51,990 --> 00:14:50,480

are going to go beyond again uh back

387

00:14:54,389 --> 00:14:52,000

around the moon initially for test

388

00:14:57,910 --> 00:14:54,399

flights and the president has set a goal

389

00:15:00,389 --> 00:14:57,920

of going to an asteroid by 2025 and on

390

00:15:02,629 --> 00:15:00,399

to mars and mid-2030s so the challenge

391

00:15:05,910 --> 00:15:02,639

we have today literally with those of

392

00:15:09,430 --> 00:15:05,920

you who are developing uh these robots

393

00:15:11,910 --> 00:15:09,440

is to in preparation for humans going to

394

00:15:12,790 --> 00:15:11,920

mars to go to mars and pick up a sample

395

00:15:18,949 --> 00:15:12,800

return

396

00:15:20,310 --> 00:15:18,959

saw and met a bunch of the students who

397

00:15:23,030 --> 00:15:20,320

are doing that today and i'm very

398

00:15:25,189 --> 00:15:23,040

excited to uh see the competition but

399

00:15:27,829 --> 00:15:25,199

why do we do prizes at nasa if we are

400

00:15:30,069 --> 00:15:27,839

about technology and innovation this is

401
00:15:31,829 --> 00:15:30,079
a way to advance technology and

402
00:15:33,910 --> 00:15:31,839
innovation it is

403
00:15:36,230 --> 00:15:33,920
a great way to solve some of these great

404
00:15:39,430 --> 00:15:36,240
challenges that nasa is all about

405
00:15:42,069 --> 00:15:39,440
solving and to help us continue to

406
00:15:44,310 --> 00:15:42,079
inspire future generations to go into

407
00:15:46,310 --> 00:15:44,320
these fields which again will help fuel

408
00:15:48,710 --> 00:15:46,320
our economy and give us all a better

409
00:15:51,430 --> 00:15:48,720
future so nasa's vision

410
00:15:53,990 --> 00:15:51,440
is to reach for new heights and reveal

411
00:15:56,949 --> 00:15:54,000
the unknown so that what we do and learn

412
00:16:00,470 --> 00:15:56,959
will benefit all humankind so what a

413
00:16:02,870 --> 00:16:00,480

great place to work right uh we do the

414

00:16:05,110 --> 00:16:02,880

hardest things that have never been done

415

00:16:07,749 --> 00:16:05,120

and we do it just to do it

416

00:16:10,310 --> 00:16:07,759

no we do it to benefit all humankind

417

00:16:11,749 --> 00:16:10,320

lots of ways to benefit humankind human

418

00:16:13,990 --> 00:16:11,759

health our

419

00:16:15,430 --> 00:16:14,000

environment pushing the technology and

420

00:16:18,310 --> 00:16:15,440

health our economic and national

421

00:16:20,230 --> 00:16:18,320

security base so it is great to see so

422

00:16:24,310 --> 00:16:20,240

many people continue to be excited about

423

00:16:26,550 --> 00:16:24,320

nasa we have a very vibrant future so as

424

00:16:28,629 --> 00:16:26,560

we explore the universe we continue to

425

00:16:31,910 --> 00:16:28,639

need autonomous robots

426
00:16:34,389 --> 00:16:31,920
folks here uh much smarter than me are

427
00:16:37,670 --> 00:16:34,399
showing us how we can do that in very

428
00:16:40,629 --> 00:16:37,680
creative ways we have teams from

429
00:16:43,110 --> 00:16:40,639
two members to 60 members from students

430
00:16:47,189 --> 00:16:43,120
to adults and it's great to see them

431
00:16:48,949 --> 00:16:47,199
being inspired by prizes so in prizes

432
00:16:51,189 --> 00:16:48,959
nasa doesn't have to spend the money

433
00:16:54,389 --> 00:16:51,199
until we sell the challenge right prizes

434
00:16:55,509 --> 00:16:54,399
have been there as a tool for uh

435
00:16:58,230 --> 00:16:55,519
innovation

436
00:17:00,870 --> 00:16:58,240
for centuries and the most famous one

437
00:17:03,990 --> 00:17:00,880
perhaps the ortiz prize where charles

438
00:17:07,189 --> 00:17:04,000

limber won it by going across the

439

00:17:08,470 --> 00:17:07,199

atlantic ocean and in that prize alone

440

00:17:12,549 --> 00:17:08,480

his team

441

00:17:14,789 --> 00:17:12,559

raised over twice the 25 000 prize money

442

00:17:17,110 --> 00:17:14,799

and that and they were not the only team

443

00:17:19,750 --> 00:17:17,120

so it is a way to leverage in our nasa

444

00:17:21,590 --> 00:17:19,760

view since we are funded by the taxpayer

445

00:17:23,110 --> 00:17:21,600

a better value for your taxpayer

446

00:17:24,630 --> 00:17:23,120

investment to get you a lot more

447

00:17:27,189 --> 00:17:24,640

innovation and a lot of people have

448

00:17:30,070 --> 00:17:27,199

different ideas about how to solve these

449

00:17:32,789 --> 00:17:30,080

challenges so we pay only for success

450

00:17:34,950 --> 00:17:32,799

and establish a goal that is meaningful

451
00:17:37,350 --> 00:17:34,960
that is something we need to do and then

452
00:17:41,190 --> 00:17:37,360
a lot more people get to help reach that

453
00:17:43,750 --> 00:17:41,200
goal they inspire risk taking

454
00:17:45,750 --> 00:17:43,760
i saw a lot of people today letting us

455
00:17:47,750 --> 00:17:45,760
know that they're not going to make it

456
00:17:50,310 --> 00:17:47,760
today but they will be back next year

457
00:17:53,750 --> 00:17:50,320
one uh gentleman is wearing a yes

458
00:17:55,430 --> 00:17:53,760
failure is an option t-shirt and i

459
00:17:57,270 --> 00:17:55,440
commented right away when i saw it and

460
00:18:00,390 --> 00:17:57,280
he lit up he said i wore it for you i

461
00:18:02,230 --> 00:18:00,400
saw massa was coming uh and you know

462
00:18:03,990 --> 00:18:02,240
that's great because my boss charlie

463
00:18:07,350 --> 00:18:04,000

bolton the head of nasa four-time

464

00:18:09,750 --> 00:18:07,360

astronaut two-star marine channel uh has

465

00:18:11,750 --> 00:18:09,760

told our leadership team often he has

466

00:18:15,029 --> 00:18:11,760

never learned from a success

467

00:18:17,750 --> 00:18:15,039

you learn from failures and so uh while

468

00:18:21,350 --> 00:18:17,760

we hope to give away some money today we

469

00:18:23,430 --> 00:18:21,360

would love absolutely to uh have winners

470

00:18:25,909 --> 00:18:23,440

for those who are not able to make the

471

00:18:27,909 --> 00:18:25,919

challenge today uh you're learning from

472

00:18:30,310 --> 00:18:27,919

it and i even had a learn from you so i

473

00:18:33,350 --> 00:18:30,320

so appreciate that uh the benefits of

474

00:18:35,029 --> 00:18:33,360

course are crucial to nasa as we open

475

00:18:37,270 --> 00:18:35,039

this next chapter

476
00:18:39,029 --> 00:18:37,280
of space we talk about human space like

477
00:18:41,669 --> 00:18:39,039
any robotic space flight like they're

478
00:18:45,190 --> 00:18:41,679
two different things but they're not not

479
00:18:47,990 --> 00:18:45,200
only do we not spend any money in space

480
00:18:49,990 --> 00:18:48,000
my my favorite line from an astronaut

481
00:18:51,909 --> 00:18:50,000
was yet took my wallet but there was

482
00:18:54,150 --> 00:18:51,919
nothing to buy

483
00:18:56,470 --> 00:18:54,160
nothing no stores in space it's all

484
00:18:57,909 --> 00:18:56,480
spent right here earth but also

485
00:18:59,830 --> 00:18:57,919
these technologies don't build

486
00:19:02,390 --> 00:18:59,840
themselves these rockets don't build

487
00:19:05,430 --> 00:19:02,400
themselves it's all about people it is

488
00:19:08,470 --> 00:19:05,440

the people throughout the agency and our

489

00:19:12,390 --> 00:19:08,480

contractor community and our academic

490

00:19:15,029 --> 00:19:12,400

partners who help us create the future

491

00:19:17,190 --> 00:19:15,039

so thank you for being here

492

00:19:19,750 --> 00:19:17,200

today and giving up your saturday i

493

00:19:22,630 --> 00:19:19,760

could not be more excited this is one of

494

00:19:25,270 --> 00:19:22,640

the greatest things i get to do as well

495

00:19:28,070 --> 00:19:25,280

while it is fabulous to be the deputy of

496

00:19:29,909 --> 00:19:28,080

nasa it truly is about

497

00:19:31,350 --> 00:19:29,919

all the things that you were doing here

498

00:19:33,430 --> 00:19:31,360

today and representing with the

499

00:19:42,230 --> 00:19:33,440

centennial challenges so thank you for