



VIRGINIA GRISS  
EDWARD WHITE I  
RICHARD SHAFFEE

1  
00:00:13,110 --> 00:00:11,350  
good morning

2  
00:00:15,669 --> 00:00:13,120  
i'm steve feldman president of the

3  
00:00:17,830 --> 00:00:15,679  
astronauts memorial foundation

4  
00:00:20,310 --> 00:00:17,840  
i want to welcome you here today

5  
00:00:24,310 --> 00:00:20,320  
to a ceremony remembering the 25th

6  
00:00:27,349 --> 00:00:24,320  
anniversary of the challenger accident

7  
00:00:32,069 --> 00:00:27,359  
challenger sts-51l

8  
00:00:34,150 --> 00:00:32,079  
launched on january 28th 1986

9  
00:00:36,310 --> 00:00:34,160  
carrying seven astronauts

10  
00:00:38,709 --> 00:00:36,320  
including the first teacher scheduled to

11  
00:00:40,069 --> 00:00:38,719  
go into space

12  
00:00:42,790 --> 00:00:40,079  
tragically

13  
00:00:44,950 --> 00:00:42,800

73 seconds after the launch

14

00:00:47,670 --> 00:00:44,960

challenger was destroyed

15

00:00:49,830 --> 00:00:47,680

and all of the astronauts on board lost

16

00:00:50,950 --> 00:00:49,840

their lives

17

00:00:52,869 --> 00:00:50,960

today

18

00:00:55,510 --> 00:00:52,879

25 years later

19

00:00:56,830 --> 00:00:55,520

we gather here to remember and honor

20

00:00:59,349 --> 00:00:56,840

those

21

00:01:01,029 --> 00:00:59,359

astronauts appropriately

22

00:01:03,110 --> 00:01:01,039

we do this at the site of the space

23

00:01:06,310 --> 00:01:03,120

mirror memorial

24

00:01:09,190 --> 00:01:06,320

designated by the united states congress

25

00:01:11,429 --> 00:01:09,200

as the national memorial to honor all of

26

00:01:15,350 --> 00:01:11,439

those astronauts who have sacrificed

27

00:01:17,190 --> 00:01:15,360

their lives for our space program

28

00:01:19,830 --> 00:01:17,200

please rise for the singing of the

29

00:01:29,190 --> 00:01:19,840

national anthem by suzie cunningham a

30

00:01:33,749 --> 00:01:29,990

oh

31

00:01:39,030 --> 00:01:33,759

say can you see

32

00:01:40,190 --> 00:01:39,040

by the dawn's early light

33

00:01:43,670 --> 00:01:40,200

what so

34

00:01:48,710 --> 00:01:43,680

proudly we hate

35

00:01:53,510 --> 00:01:48,720

at the twilight's last gleaming

36

00:01:54,990 --> 00:01:53,520

whose broad stripes and bright stars

37

00:01:58,630 --> 00:01:55,000

through the

38

00:01:59,870 --> 00:01:58,640

perilous fight

39

00:02:03,190 --> 00:01:59,880

or the

40

00:02:04,749 --> 00:02:03,200

ramparts we watched

41

00:02:08,949 --> 00:02:04,759

were so

42

00:02:13,589 --> 00:02:08,959

gallantly streaming

43

00:02:18,790 --> 00:02:13,599

and the rockets red glare

44

00:02:23,510 --> 00:02:18,800

the bumps bursting in air

45

00:02:29,510 --> 00:02:23,520

gave proof through the night

46

00:02:40,309 --> 00:02:34,830

oh say does that star-spangled

47

00:02:46,070 --> 00:02:41,790

or the

48

00:02:46,080 --> 00:02:59,830

and the home

49

00:03:08,710 --> 00:03:00,869

thank you

50

00:03:12,229 --> 00:03:10,949

we will begin today's program with an

51  
00:03:14,949 --> 00:03:12,239  
invocation

52  
00:03:18,470 --> 00:03:14,959  
presented by a member of the amf board

53  
00:03:25,750 --> 00:03:18,480  
and a prominent author dr mick euclea dr

54  
00:03:31,030 --> 00:03:28,789  
today we're here to honor

55  
00:03:33,350 --> 00:03:31,040  
and to

56  
00:03:36,309 --> 00:03:33,360  
remember but also to celebrate seven

57  
00:03:38,869 --> 00:03:36,319  
lives that were lived well

58  
00:03:40,550 --> 00:03:38,879  
these individuals had families and half

59  
00:03:41,830 --> 00:03:40,560  
families and we also remember the

60  
00:03:44,390 --> 00:03:41,840  
families and

61  
00:03:46,390 --> 00:03:44,400  
the great sacrifice of releasing their

62  
00:03:48,070 --> 00:03:46,400  
loved ones to such an intense profession

63  
00:03:50,470 --> 00:03:48,080

to better mankind

64

00:03:53,110 --> 00:03:50,480

and even greater sacrifice

65

00:03:55,030 --> 00:03:53,120

of losing those that they dearly loved

66

00:03:57,190 --> 00:03:55,040

these individuals were able to combine

67

00:03:59,509 --> 00:03:57,200

their passions their talents their

68

00:04:01,750 --> 00:03:59,519

competencies

69

00:04:04,229 --> 00:04:01,760

as well as their vocation into one focus

70

00:04:06,149 --> 00:04:04,239

and so for this we honor them today

71

00:04:08,229 --> 00:04:06,159

remember them and were also inspired by

72

00:04:14,229 --> 00:04:08,239

the lives that they lived join me in

73

00:04:19,430 --> 00:04:17,509

our father you have created us to excel

74

00:04:22,069 --> 00:04:19,440

to be all that we can be for the purpose

75

00:04:24,550 --> 00:04:22,079

of serving other people

76  
00:04:26,830 --> 00:04:24,560  
we're created in your image

77  
00:04:29,510 --> 00:04:26,840  
and so we find that we also love to

78  
00:04:31,350 --> 00:04:29,520  
create and we subdue and we manage our

79  
00:04:33,909 --> 00:04:31,360  
environment

80  
00:04:35,430 --> 00:04:33,919  
and we love to explore

81  
00:04:37,270 --> 00:04:35,440  
to understand the wonders of your

82  
00:04:39,030 --> 00:04:37,280  
creation

83  
00:04:41,830 --> 00:04:39,040  
we're called to do this and for a rare

84  
00:04:45,189 --> 00:04:41,840  
few it even becomes dangerous

85  
00:04:47,590 --> 00:04:45,199  
even to the point of risking their lives

86  
00:04:49,909 --> 00:04:47,600  
and it's to those rare few that we come

87  
00:04:51,350 --> 00:04:49,919  
to honor today

88  
00:04:53,110 --> 00:04:51,360

the risks are well thought thought

89

00:04:55,430 --> 00:04:53,120

through they're not reckless but they

90

00:04:57,350 --> 00:04:55,440

are dangerous we accept it

91

00:04:59,110 --> 00:04:57,360

we accept that along with the promise of

92

00:05:00,950 --> 00:04:59,120

a better life

93

00:05:02,950 --> 00:05:00,960

and so we honor them today not only

94

00:05:06,390 --> 00:05:02,960

because they serve us

95

00:05:08,469 --> 00:05:06,400

but also because they inspire us

96

00:05:10,870 --> 00:05:08,479

like the great explorers of old magellan

97

00:05:12,550 --> 00:05:10,880

columbus and all the rest

98

00:05:14,629 --> 00:05:12,560

they explored new worlds and it was a

99

00:05:16,230 --> 00:05:14,639

world without completed maps or full

100

00:05:19,029 --> 00:05:16,240

proof manuals

101  
00:05:20,710 --> 00:05:19,039  
because they were creating them

102  
00:05:22,629 --> 00:05:20,720  
and so father we are reminded today that

103  
00:05:25,670 --> 00:05:22,639  
there is a time for everything a season

104  
00:05:27,590 --> 00:05:25,680  
for every activity under heaven

105  
00:05:29,590 --> 00:05:27,600  
the time they be born

106  
00:05:31,430 --> 00:05:29,600  
and the time to die

107  
00:05:33,749 --> 00:05:31,440  
a time to plan and a time to pluck up

108  
00:05:36,790 --> 00:05:33,759  
that which is planted

109  
00:05:39,029 --> 00:05:36,800  
so in the spirit of these heroic leaders

110  
00:05:41,830 --> 00:05:39,039  
the greatest way we can honor them is to

111  
00:05:43,830 --> 00:05:41,840  
not simply live for ourselves

112  
00:05:45,990 --> 00:05:43,840  
but to live and plant well as we serve

113  
00:05:47,749 --> 00:05:46,000

those around us

114

00:05:49,430 --> 00:05:47,759

father knowing that all of life is on

115

00:05:51,029 --> 00:05:49,440

loan from you

116

00:05:53,110 --> 00:05:51,039

we thank you for loaning us these

117

00:05:54,390 --> 00:05:53,120

incredible lives

118

00:05:55,909 --> 00:05:54,400

and we thank you that they are now

119

00:05:57,830 --> 00:05:55,919

safely back

120

00:06:06,870 --> 00:05:57,840

in your presence

121

00:06:11,270 --> 00:06:09,350

we are honored to have with us today

122

00:06:13,270 --> 00:06:11,280

members of the amf board of directors

123

00:06:14,950 --> 00:06:13,280

and trustees

124

00:06:16,710 --> 00:06:14,960

astronauts

125

00:06:19,590 --> 00:06:16,720

nasa officials

126

00:06:22,150 --> 00:06:19,600

corporate executives military officers

127

00:06:24,790 --> 00:06:22,160

and perhaps most important to us

128

00:06:27,270 --> 00:06:24,800

family members of those astronauts whom

129

00:06:29,350 --> 00:06:27,280

we honor

130

00:06:32,150 --> 00:06:29,360

the commander of challenger and its true

131

00:06:34,309 --> 00:06:32,160

leader was dick scobee

132

00:06:36,550 --> 00:06:34,319

his wife june has since become one of

133

00:06:38,230 --> 00:06:36,560

the most respected members of the space

134

00:06:40,230 --> 00:06:38,240

community

135

00:06:42,550 --> 00:06:40,240

her original book about challenger

136

00:06:46,390 --> 00:06:42,560

entitled silver linings the triumph of

137

00:06:49,110 --> 00:06:46,400

the challenger was truly inspirational

138

00:06:52,230 --> 00:06:49,120

she wrote a book moon-based crisis

139

00:06:55,270 --> 00:06:52,240

about motivating young people to study

140

00:06:57,990 --> 00:06:55,280

science technology engineering and math

141

00:06:59,589 --> 00:06:58,000

and her most recent book an update of

142

00:07:03,110 --> 00:06:59,599

silver linings and really her

143

00:07:05,189 --> 00:07:03,120

autobiography which is just that is also

144

00:07:08,230 --> 00:07:05,199

inspirational and really something for

145

00:07:10,230 --> 00:07:08,240

all of us to admire

146

00:07:11,990 --> 00:07:10,240

she also was founding chairman of the

147

00:07:13,749 --> 00:07:12,000

challenger centers for space science

148

00:07:16,629 --> 00:07:13,759

education

149

00:07:19,270 --> 00:07:16,639

she earns a phd degree from texas a m

150

00:07:20,150 --> 00:07:19,280

university and has taught every grade

151

00:07:23,510 --> 00:07:20,160

level

152

00:07:25,029 --> 00:07:23,520

from kindergarten through college

153

00:07:26,230 --> 00:07:25,039

she hasn't been interviewed on 60

154

00:07:28,390 --> 00:07:26,240

minutes

155

00:07:31,270 --> 00:07:28,400

the o'reilly factor the oprah winfrey

156

00:07:33,909 --> 00:07:31,280

show good morning america and untold

157

00:07:35,670 --> 00:07:33,919

untold additional shows she has too many

158

00:07:37,270 --> 00:07:35,680

awards for me to be able to mention this

159

00:07:39,990 --> 00:07:37,280

morning but it is a pleasure to

160

00:07:49,510 --> 00:07:40,000

introduce our keynote speaker dr june

161

00:07:54,390 --> 00:07:51,589

thank you very much dr feldman for those

162

00:07:55,670 --> 00:07:54,400

nice words makes me feel like i'm

163

00:08:00,230 --> 00:07:55,680

somebody

164

00:08:04,070 --> 00:08:00,240

and it wasn't even my own funeral

165

00:08:05,510 --> 00:08:04,080

well it's a nice cool brisk morning here

166

00:08:07,189 --> 00:08:05,520

chamber of commerce didn't get the

167

00:08:09,270 --> 00:08:07,199

message to make it a beautiful day for

168

00:08:13,029 --> 00:08:09,280

us to talk about florida

169

00:08:16,150 --> 00:08:15,110

um just so many of you that have joined

170

00:08:18,150 --> 00:08:16,160

today

171

00:08:21,510 --> 00:08:18,160

uh thank you for coming out on this cool

172

00:08:23,749 --> 00:08:21,520

brisk day uh to help us honor

173

00:08:25,430 --> 00:08:23,759

the challenger crew and in fact all

174

00:08:27,909 --> 00:08:25,440

those names that are

175

00:08:30,150 --> 00:08:27,919

behind me on this beautiful mirror

176

00:08:33,509 --> 00:08:30,160

memorial

177

00:08:36,709 --> 00:08:33,519

on behalf of all the challenger families

178

00:08:38,829 --> 00:08:36,719

um i'm i'm happy to be here we're

179

00:08:42,070 --> 00:08:38,839

represented by the resnick families as

180

00:08:43,750 --> 00:08:42,080

well so hello to you

181

00:08:46,310 --> 00:08:43,760

i thank you for being here to help us

182

00:08:48,550 --> 00:08:46,320

honor our loved ones and the spirit of

183

00:08:49,750 --> 00:08:48,560

the mission of the space shuttle

184

00:08:52,070 --> 00:08:49,760

challenger

185

00:08:54,389 --> 00:08:52,080

it's hard to believe that 25 years has

186

00:08:56,949 --> 00:08:54,399

passed since that fateful day january

187

00:08:58,630 --> 00:08:56,959

1986.

188

00:09:00,790 --> 00:08:58,640

we know it when we look at our kids and

189

00:09:02,470 --> 00:09:00,800

how they've grown and we have nine

190

00:09:04,389 --> 00:09:02,480

grandchildren

191

00:09:05,269 --> 00:09:04,399

but like everyone watching around the

192

00:09:08,470 --> 00:09:05,279

world

193

00:09:11,910 --> 00:09:08,480

we were stunned to see the unspeakable

194

00:09:13,990 --> 00:09:11,920

unfold right before our eyes

195

00:09:15,430 --> 00:09:14,000

could this really happen no one believed

196

00:09:17,590 --> 00:09:15,440

it could happen

197

00:09:19,030 --> 00:09:17,600

what should have been a day heralded for

198

00:09:21,670 --> 00:09:19,040

education

199

00:09:23,350 --> 00:09:21,680

turned to tragedy in a split second our

200

00:09:25,110 --> 00:09:23,360

loved ones were gone

201  
00:09:29,110 --> 00:09:25,120  
our nation grieved

202  
00:09:33,509 --> 00:09:31,509  
later uh years later after we lost the

203  
00:09:35,190 --> 00:09:33,519  
beloved columbia crew

204  
00:09:39,670 --> 00:09:35,200  
my daughter wrote a letter to those

205  
00:09:43,910 --> 00:09:42,310  
she said everyone around the world

206  
00:09:46,070 --> 00:09:43,920  
saw how

207  
00:09:49,110 --> 00:09:46,080  
our

208  
00:09:51,030 --> 00:09:49,120  
challenger crew my dad died

209  
00:09:53,030 --> 00:09:51,040  
they all wanted to say goodbye to

210  
00:09:55,190 --> 00:09:53,040  
american heroes

211  
00:09:57,190 --> 00:09:55,200  
me i just wanted to say goodbye to my

212  
00:09:59,350 --> 00:09:57,200  
daddy

213  
00:10:02,389 --> 00:09:59,360

she helped those children to realize

214

00:10:04,069 --> 00:10:02,399

that their lives had become very public

215

00:10:07,509 --> 00:10:04,079

but that are

216

00:10:10,470 --> 00:10:07,519

keep the memories alive

217

00:10:12,710 --> 00:10:10,480

of their parents ask people

218

00:10:14,230 --> 00:10:12,720

that knew them to tell you stories about

219

00:10:16,389 --> 00:10:14,240

their dads

220

00:10:18,630 --> 00:10:16,399

i remember being

221

00:10:22,550 --> 00:10:18,640

at the memorial service at johnson space

222

00:10:25,750 --> 00:10:22,560

center shortly after this la accident

223

00:10:26,630 --> 00:10:25,760

watching this missing man formation fly

224

00:10:28,949 --> 00:10:26,640

over

225

00:10:31,829 --> 00:10:28,959

one plane i think you all are aware one

226

00:10:33,990 --> 00:10:31,839

plane pulls up and climbs to the heavens

227

00:10:35,910 --> 00:10:34,000

to symbolize the loss

228

00:10:38,630 --> 00:10:35,920

but the other planes continue on to

229

00:10:40,790 --> 00:10:38,640

carry on the mission

230

00:10:43,910 --> 00:10:40,800

that's when it dawned on me

231

00:10:45,350 --> 00:10:43,920

challenger's mission a mission to teach

232

00:10:47,509 --> 00:10:45,360

was incomplete

233

00:10:50,230 --> 00:10:47,519

lessons were left untaught

234

00:10:53,829 --> 00:10:50,240

scientific and engineering problems were

235

00:10:56,710 --> 00:10:53,839

left unsolved but the saddest reality

236

00:10:58,870 --> 00:10:56,720

was the impact on the children

237

00:11:03,990 --> 00:10:58,880

the chance to really touch a child and

238

00:11:10,389 --> 00:11:05,670

the families of the challenger 7

239

00:11:15,509 --> 00:11:13,030

we didn't somehow if we didn't somehow

240

00:11:18,230 --> 00:11:15,519

continue challenger's mission of

241

00:11:20,870 --> 00:11:18,240

education than our loved ones would have

242

00:11:23,430 --> 00:11:20,880

died in vain and certainly that entire

243

00:11:26,069 --> 00:11:23,440

crew embraced

244

00:11:28,949 --> 00:11:26,079

christa McAuliffe and was known as the

245

00:11:31,350 --> 00:11:28,959

teacher in space mission

246

00:11:33,750 --> 00:11:31,360

we couldn't let that happen

247

00:11:36,470 --> 00:11:33,760

that they'd be forgotten so we began to

248

00:11:38,790 --> 00:11:36,480

turn this unimaginable tragedy into a

249

00:11:40,790 --> 00:11:38,800

monumental triumph

250

00:11:43,030 --> 00:11:40,800

the entire world

251  
00:11:44,550 --> 00:11:43,040  
knew how the challenger crew died

252  
00:11:46,310 --> 00:11:44,560  
we wanted the world to know how they

253  
00:11:48,949 --> 00:11:46,320  
lived and for what

254  
00:11:50,550 --> 00:11:48,959  
they were risking their lives

255  
00:11:53,750 --> 00:11:50,560  
we

256  
00:11:56,389 --> 00:11:53,760  
jane smith lorna onozuka sheryl mcnair

257  
00:11:57,670 --> 00:11:56,399  
marcia jarvis steve mcauliffe and chuck

258  
00:12:01,110 --> 00:11:57,680  
resnick

259  
00:12:04,629 --> 00:12:01,120  
all seven families banded together

260  
00:12:06,310 --> 00:12:04,639  
to create a cause greater than ourselves

261  
00:12:07,509 --> 00:12:06,320  
that would not only take us into the

262  
00:12:09,990 --> 00:12:07,519  
future

263  
00:12:12,550 --> 00:12:10,000

but help us to heal our hearts and the

264

00:12:15,110 --> 00:12:12,560

hearts of those in our nation

265

00:12:16,710 --> 00:12:15,120

one night only weeks after the accident

266

00:12:18,790 --> 00:12:16,720

while sitting around in my living room

267

00:12:20,629 --> 00:12:18,800

in my home in houston

268

00:12:21,590 --> 00:12:20,639

we conceived the idea of the challenger

269

00:12:24,470 --> 00:12:21,600

center

270

00:12:26,310 --> 00:12:24,480

a living tribute to our loved ones a

271

00:12:29,190 --> 00:12:26,320

place that would provide america's

272

00:12:32,150 --> 00:12:29,200

students with access to outstanding

273

00:12:34,310 --> 00:12:32,160

space science educational opportunities

274

00:12:36,389 --> 00:12:34,320

we envisioned activities where children

275

00:12:37,750 --> 00:12:36,399

teachers and citizens alike could touch

276

00:12:39,750 --> 00:12:37,760

the future

277

00:12:42,069 --> 00:12:39,760

manipulating equipment conducting

278

00:12:44,629 --> 00:12:42,079

scientific experiments solving problems

279

00:12:46,629 --> 00:12:44,639

working together immersing themselves in

280

00:12:49,750 --> 00:12:46,639

a space-like surroundings and growing

281

00:12:51,509 --> 00:12:49,760

accustomed to the space technology

282

00:12:54,550 --> 00:12:51,519

our hope was to spark in our young

283

00:12:57,509 --> 00:12:54,560

people and interest in a joy in science

284

00:12:59,670 --> 00:12:57,519

a spark that could change their lives

285

00:13:01,990 --> 00:12:59,680

our vision became reality

286

00:13:04,150 --> 00:13:02,000

when when you visit a challenger center

287

00:13:06,710 --> 00:13:04,160

you'll see children climb aboard a

288

00:13:09,030 --> 00:13:06,720

child-sized space simulator

289

00:13:11,670 --> 00:13:09,040

with their teacher and fly a simulated

290

00:13:13,190 --> 00:13:11,680

space mission into the future

291

00:13:15,910 --> 00:13:13,200

there they are challenged to apply

292

00:13:18,069 --> 00:13:15,920

skills in math and science while working

293

00:13:20,550 --> 00:13:18,079

together as a team to complete a

294

00:13:22,949 --> 00:13:20,560

successful mission they learn critical

295

00:13:25,269 --> 00:13:22,959

skills needed for the 21st century

296

00:13:27,829 --> 00:13:25,279

teamwork dealing with adversity solving

297

00:13:29,590 --> 00:13:27,839

problems and the fundamentals of human

298

00:13:31,269 --> 00:13:29,600

interaction

299

00:13:32,389 --> 00:13:31,279

we launched our first challenger center

300

00:13:34,550 --> 00:13:32,399

in houston

301

00:13:36,710 --> 00:13:34,560

today we've grown to a network of 48

302

00:13:38,470 --> 00:13:36,720

challenger centers throughout america as

303

00:13:41,910 --> 00:13:38,480

well as in canada south korea and

304

00:13:43,670 --> 00:13:41,920

england and later today i'll join

305

00:13:45,990 --> 00:13:43,680

those folks at the challenger learning

306

00:13:48,629 --> 00:13:46,000

center in houston to celebrate that

307

00:13:51,430 --> 00:13:48,639

memory and which i do every year i go to

308

00:13:55,030 --> 00:13:51,440

a challenger center to see children

309

00:13:56,790 --> 00:13:55,040

doing what our beloved challenger space

310

00:13:59,350 --> 00:13:56,800

crew loves so much

311

00:14:01,110 --> 00:13:59,360

well each year more than 400 000 school

312

00:14:03,350 --> 00:14:01,120

students visit one of our centers and

313

00:14:05,350 --> 00:14:03,360

experience the thrill and excitement of

314

00:14:07,910 --> 00:14:05,360

space exploration

315

00:14:09,990 --> 00:14:07,920

and with our new chairman

316

00:14:11,990 --> 00:14:10,000

scott perezinski i think that number

317

00:14:14,230 --> 00:14:12,000

will double in no time

318

00:14:17,990 --> 00:14:14,240

and in the past 25 years we have reached

319

00:14:21,990 --> 00:14:20,470

we have strong partnerships with nasa

320

00:14:24,150 --> 00:14:22,000

and other federal

321

00:14:26,629 --> 00:14:24,160

agencies numerous universities and

322

00:14:29,910 --> 00:14:26,639

aerospace contractors help us keep our

323

00:14:31,590 --> 00:14:29,920

curriculum current throughout ongoing

324

00:14:34,230 --> 00:14:31,600

evaluation

325

00:14:36,150 --> 00:14:34,240

and consultation and leadership on our

326

00:14:37,990 --> 00:14:36,160

board of directors has laid a solid

327

00:14:40,949 --> 00:14:38,000

foundation for growth in numerous

328

00:14:42,790 --> 00:14:40,959

directions so you see

329

00:14:45,590 --> 00:14:42,800

challenger wasn't the final chapter in

330

00:14:47,910 --> 00:14:45,600

the book of space exploration

331

00:14:50,870 --> 00:14:47,920

just a transition chapter

332

00:14:55,030 --> 00:14:50,880

in this great book

333

00:14:56,870 --> 00:14:55,040

nor is space shuttle the final chapter

334

00:14:58,949 --> 00:14:56,880

as i wrote

335

00:15:00,949 --> 00:14:58,959

and like any good school teacher i

336

00:15:05,030 --> 00:15:00,959

brought my prop along

337

00:15:09,110 --> 00:15:05,040

as i wrote in the silver linings book

338

00:15:14,949 --> 00:15:11,430

we are a nation of believers

339

00:15:16,230 --> 00:15:14,959

we are innovators and problem solvers

340

00:15:19,030 --> 00:15:16,240

and yes

341

00:15:21,350 --> 00:15:19,040

risk takers with a pioneering spirit

342

00:15:23,430 --> 00:15:21,360

that began with our forefathers

343

00:15:25,350 --> 00:15:23,440

who sailed from europe to establish and

344

00:15:28,870 --> 00:15:25,360

colonize our nation

345

00:15:32,389 --> 00:15:28,880

and then boldly expanded west exploring

346

00:15:35,189 --> 00:15:32,399

discovering and building our country

347

00:15:37,910 --> 00:15:35,199

technology gave us automobiles and

348

00:15:40,470 --> 00:15:37,920

locomotives then we slipped this early

349

00:15:42,790 --> 00:15:40,480

bonds of earth into airplanes

350

00:15:45,509 --> 00:15:42,800

and built their rockets to launch us on

351

00:15:46,310 --> 00:15:45,519

the highway to space

352

00:15:48,389 --> 00:15:46,320

we

353

00:15:50,790 --> 00:15:48,399

as a nation are indebted to the space

354

00:15:53,590 --> 00:15:50,800

pioneers who blazed a trail

355

00:15:55,749 --> 00:15:53,600

of exploration and discovery

356

00:16:00,069 --> 00:15:55,759

here at kennedy space center you've

357

00:16:02,790 --> 00:16:00,079

witnessed decades of launch successes

358

00:16:05,670 --> 00:16:02,800

from early mercury seven astronauts

359

00:16:08,389 --> 00:16:05,680

with alan shepard the gemini excitement

360

00:16:10,310 --> 00:16:08,399

of john glenn and the historic days of

361

00:16:12,790 --> 00:16:10,320

apollo and moon landings

362

00:16:14,150 --> 00:16:12,800

when we were all glued to the flickering

363

00:16:16,550 --> 00:16:14,160

black and white

364

00:16:20,550 --> 00:16:16,560

televisions to watch the first steps of

365

00:16:23,430 --> 00:16:20,560

armstrong and aldrin upon the moon

366

00:16:25,269 --> 00:16:23,440

then came the shuttle a space station

367

00:16:27,030 --> 00:16:25,279

transportation system a space

368

00:16:30,230 --> 00:16:27,040

transportation system

369

00:16:33,030 --> 00:16:30,240

a plane with sparkling white wings

370

00:16:35,350 --> 00:16:33,040

designed by creative engineers to launch

371

00:16:37,350 --> 00:16:35,360

like a rocket toward the heavens

372

00:16:40,150 --> 00:16:37,360

orbit the earth

373

00:16:42,949 --> 00:16:40,160

build the international space station

374

00:16:45,509 --> 00:16:42,959

launch satellites collect astonishing

375

00:16:48,230 --> 00:16:45,519

images from hubble and you've seen those

376

00:16:50,550 --> 00:16:48,240

most recently

377

00:16:55,110 --> 00:16:50,560

make discoveries and grow our knowledge

378

00:16:56,629 --> 00:16:55,120

and then glide safely back home to earth

379

00:16:58,389 --> 00:16:56,639

after dick scobee and his fellow

380

00:17:01,430 --> 00:16:58,399

astronauts were selected in the first

381

00:17:03,990 --> 00:17:01,440

class of 35 shuttle astronauts

382

00:17:05,669 --> 00:17:04,000

i no longer watched the launch of space

383

00:17:08,549 --> 00:17:05,679

vehicles from afar

384

00:17:10,789 --> 00:17:08,559

i watched them standing right here

385

00:17:13,189 --> 00:17:10,799

with him at kennedy

386

00:17:14,150 --> 00:17:13,199

we watched the engines ignite and felt

387

00:17:17,029 --> 00:17:14,160

the hum

388

00:17:18,870 --> 00:17:17,039

felt that thunderous roar as the first

389

00:17:20,949 --> 00:17:18,880

shuttle columbia lifted off carrying

390

00:17:22,150 --> 00:17:20,959

brave astronauts

391

00:17:24,150 --> 00:17:22,160

john young

392

00:17:25,990 --> 00:17:24,160

and my dear friend bob crippen who's

393

00:17:28,150 --> 00:17:26,000

here with us today

394

00:17:29,990 --> 00:17:28,160

it was sheer exhilaration that our

395

00:17:32,390 --> 00:17:30,000

family of astronauts shared their

396

00:17:34,549 --> 00:17:32,400

experiences with us when was a

397

00:17:38,070 --> 00:17:34,559

particularly personal joy after my

398

00:17:40,470 --> 00:17:38,080

husband piloted the successful 41c solar

399

00:17:41,750 --> 00:17:40,480

max mission

400

00:17:43,590 --> 00:17:41,760

now

401  
00:17:46,150 --> 00:17:43,600  
it is sad to see the shuttle story

402  
00:17:47,990 --> 00:17:46,160  
approaching the close of its chapter and

403  
00:17:49,430 --> 00:17:48,000  
this mighty history book of space

404  
00:17:51,110 --> 00:17:49,440  
exploration

405  
00:17:53,029 --> 00:17:51,120  
but the book will continue with new

406  
00:17:55,750 --> 00:17:53,039  
exciting chapters

407  
00:17:58,070 --> 00:17:55,760  
about space programs and more advanced

408  
00:17:59,110 --> 00:17:58,080  
space vehicles to carry us into the next

409  
00:18:02,070 --> 00:17:59,120  
chapters

410  
00:18:04,230 --> 00:18:02,080  
of exciting adventures discoveries and

411  
00:18:06,470 --> 00:18:04,240  
achievement

412  
00:18:09,029 --> 00:18:06,480  
and will benefit and advance the people

413  
00:18:11,270 --> 00:18:09,039

of our planet and a new legacy our

414

00:18:12,789 --> 00:18:11,280

challenger center students will be there

415

00:18:15,510 --> 00:18:12,799

and they'll be ready to accept the

416

00:18:17,270 --> 00:18:15,520

challenge of space exploration anew

417

00:18:20,789 --> 00:18:17,280

why

418

00:18:24,710 --> 00:18:20,799

because we have whole planets to explore

419

00:18:26,630 --> 00:18:24,720

and we have new worlds to build

420

00:18:28,710 --> 00:18:26,640

in the silver linings book i draw

421

00:18:31,350 --> 00:18:28,720

together this rich history of the space

422

00:18:32,630 --> 00:18:31,360

program from the early days of von braun

423

00:18:35,750 --> 00:18:32,640

rockets

424

00:18:38,470 --> 00:18:35,760

my teenage sputnik days and this

425

00:18:39,909 --> 00:18:38,480

discoveries made by nasa astronauts and

426  
00:18:42,950 --> 00:18:39,919  
scientists

427  
00:18:44,789 --> 00:18:42,960  
to the explorers of today including this

428  
00:18:47,029 --> 00:18:44,799  
interesting emerging role of private

429  
00:18:49,510 --> 00:18:47,039  
space travel

430  
00:18:52,150 --> 00:18:49,520  
returning to our day of remembrance

431  
00:18:54,549 --> 00:18:52,160  
perhaps president reagan said it best 25

432  
00:18:56,390 --> 00:18:54,559  
years ago when in place of his scheduled

433  
00:18:58,870 --> 00:18:56,400  
state of the union address

434  
00:19:01,350 --> 00:18:58,880  
he spoke to a grieving nation

435  
00:19:03,350 --> 00:19:01,360  
he took care to speak to the children

436  
00:19:06,470 --> 00:19:03,360  
who were watching the live coverage of

437  
00:19:11,990 --> 00:19:08,150  
he said

438  
00:19:15,270 --> 00:19:14,070

but sometimes painful things like this

439

00:19:17,590 --> 00:19:15,280

happen

440

00:19:19,830 --> 00:19:17,600

it's all a part of the process of

441

00:19:21,830 --> 00:19:19,840

exploration and discovery

442

00:19:24,470 --> 00:19:21,840

it's all part of taking a chance and

443

00:19:26,150 --> 00:19:24,480

expanding man's horizons

444

00:19:27,909 --> 00:19:26,160

the future doesn't belong to the

445

00:19:30,070 --> 00:19:27,919

faint-hearted

446

00:19:32,070 --> 00:19:30,080

it belongs to the brave

447

00:19:33,909 --> 00:19:32,080

the challenger crew was pulling us into

448

00:19:36,710 --> 00:19:33,919

the future

449

00:19:40,230 --> 00:19:36,720

and we'll continue to follow them

450

00:19:43,350 --> 00:19:40,240

the president concluded his remarks

451  
00:19:45,909 --> 00:19:43,360  
we will never forget them

452  
00:19:48,070 --> 00:19:45,919  
or the last time we saw them

453  
00:19:49,270 --> 00:19:48,080  
this morning as they prepared for their

454  
00:19:50,830 --> 00:19:49,280  
journey

455  
00:19:53,430 --> 00:19:50,840  
and waved

456  
00:19:54,789 --> 00:19:53,440  
goodbye and slip the surly bonds of

457  
00:19:58,230 --> 00:19:54,799  
earth

458  
00:20:00,470 --> 00:19:58,240  
to touch the face of god

459  
00:20:01,990 --> 00:20:00,480  
that was then

460  
00:20:05,110 --> 00:20:02,000  
and their names

461  
00:20:06,789 --> 00:20:05,120  
are beautifully emblazoned on the mirror

462  
00:20:08,789 --> 00:20:06,799  
but this is now

463  
00:20:10,470 --> 00:20:08,799

it's time for the next 25 years to

464

00:20:14,149 --> 00:20:10,480

unfold

465

00:20:16,070 --> 00:20:14,159

let us boldly look to the future

466

00:20:17,270 --> 00:20:16,080

with a vision built upon our rich

467

00:20:19,430 --> 00:20:17,280

heritage

468

00:20:21,270 --> 00:20:19,440

of space pioneers

469

00:20:23,590 --> 00:20:21,280

what's on the next horizon for our

470

00:20:26,549 --> 00:20:23,600

nation and planet

471

00:20:29,029 --> 00:20:26,559

well in 48 cities today school children

472

00:20:31,270 --> 00:20:29,039

will fly a space simulation mission a

473

00:20:33,190 --> 00:20:31,280

challenger mission that inspires and

474

00:20:35,830 --> 00:20:33,200

motivates them in the sciences and

475

00:20:38,470 --> 00:20:35,840

technology engineering and math

476  
00:20:40,390 --> 00:20:38,480  
these children and others are our future

477  
00:20:43,350 --> 00:20:40,400  
engineers and scientists who will build

478  
00:20:46,070 --> 00:20:43,360  
new vehicles to fly in space

479  
00:20:48,710 --> 00:20:46,080  
physicians and teachers who will take

480  
00:20:50,549 --> 00:20:48,720  
scientific make scientific breakthroughs

481  
00:20:52,149 --> 00:20:50,559  
to improve our lives

482  
00:20:54,390 --> 00:20:52,159  
and they represent

483  
00:20:56,950 --> 00:20:54,400  
future space explorers who will create

484  
00:20:59,430 --> 00:20:56,960  
the highway to our planets and beyond

485  
00:21:01,029 --> 00:20:59,440  
who will travel to the unknown to make

486  
00:21:03,430 --> 00:21:01,039  
the discoveries that expand our

487  
00:21:06,070 --> 00:21:03,440  
knowledge and build a better world

488  
00:21:08,470 --> 00:21:06,080

and keep it safe

489

00:21:11,029 --> 00:21:08,480

recently i wrote with famous authors

490

00:21:12,710 --> 00:21:11,039

kevin anderson and rebecca mosta this is

491

00:21:14,870 --> 00:21:12,720

my other prom

492

00:21:18,149 --> 00:21:14,880

a series of young adult science fiction

493

00:21:20,630 --> 00:21:18,159

books about star challengers oh these

494

00:21:23,430 --> 00:21:20,640

books are fun and with a famous science

495

00:21:25,430 --> 00:21:23,440

fiction author they're well received

496

00:21:27,190 --> 00:21:25,440

it's about kids who discover just how

497

00:21:29,029 --> 00:21:27,200

important it is to learn the skills of

498

00:21:31,990 --> 00:21:29,039

science and math to advance space

499

00:21:33,510 --> 00:21:32,000

exploration and keep our planet safe and

500

00:21:35,510 --> 00:21:33,520

they're a lot of fun

501  
00:21:38,149 --> 00:21:35,520  
because they have a

502  
00:21:40,789 --> 00:21:38,159  
mysterious commander zota who takes them

503  
00:21:43,029 --> 00:21:40,799  
into the future

504  
00:21:45,669 --> 00:21:43,039  
well and it's here at kennedy that we

505  
00:21:47,669 --> 00:21:45,679  
stand beneath this astronaut memorial

506  
00:21:49,110 --> 00:21:47,679  
mirror inscribed with our names of our

507  
00:21:51,270 --> 00:21:49,120  
loved ones

508  
00:21:52,549 --> 00:21:51,280  
challenger as well as those of colombia

509  
00:21:54,870 --> 00:21:52,559  
and paulo

510  
00:21:56,789 --> 00:21:54,880  
names that represent people who gave

511  
00:21:58,789 --> 00:21:56,799  
their lives serving

512  
00:22:00,789 --> 00:21:58,799  
the country they loved

513  
00:22:02,470 --> 00:22:00,799

we honor them with our presence at this

514

00:22:05,029 --> 00:22:02,480

ceremony

515

00:22:07,350 --> 00:22:05,039

and you honor yourselves for paying

516

00:22:09,909 --> 00:22:07,360

tribute to them on this day

517

00:22:11,510 --> 00:22:09,919

25 years after their loss

518

00:22:13,830 --> 00:22:11,520

on this

519

00:22:34,710 --> 00:22:13,840

their silver anniversary

520

00:22:34,720 --> 00:22:37,750

thank you

521

00:22:41,190 --> 00:22:39,270

mike mccully

522

00:22:44,390 --> 00:22:41,200

is chairman of the board of directors of

523

00:22:46,710 --> 00:22:44,400

the astronauts memorial foundation

524

00:22:48,549 --> 00:22:46,720

he is also a former astronaut and

525

00:22:51,430 --> 00:22:48,559

shuttle pilot

526

00:22:53,510 --> 00:22:51,440

he is also a retire retired navy captain

527

00:22:55,750 --> 00:22:53,520

and test pilot

528

00:22:57,669 --> 00:22:55,760

he went on to become an executive at

529

00:23:00,630 --> 00:22:57,679

united space alliance

530

00:23:02,310 --> 00:23:00,640

and ultimately became president and ceo

531

00:23:04,470 --> 00:23:02,320

of that corporation

532

00:23:13,350 --> 00:23:04,480

it's my pleasure to introduce mike

533

00:23:17,110 --> 00:23:14,870

my first words this morning were going

534

00:23:18,710 --> 00:23:17,120

to be i am triply blessed to be here

535

00:23:20,149 --> 00:23:18,720

this morning

536

00:23:22,149 --> 00:23:20,159

but i'm going to add something in it's

537

00:23:23,909 --> 00:23:22,159

quadruply actually as bob caban and i

538

00:23:26,230 --> 00:23:23,919

sat here a moment ago and looked out

539

00:23:28,870 --> 00:23:26,240

over the audience there's 25 years of

540

00:23:30,070 --> 00:23:28,880

center directors in this audience

541

00:23:31,669 --> 00:23:30,080

seven of them

542

00:23:33,590 --> 00:23:31,679

i would suggest that you guys get

543

00:23:35,110 --> 00:23:33,600

together afterwards and get a group

544

00:23:37,270 --> 00:23:35,120

photo because you'll never do this one

545

00:23:39,350 --> 00:23:37,280

again i don't think

546

00:23:41,510 --> 00:23:39,360

so the triply blessed though

547

00:23:43,830 --> 00:23:41,520

first as a relatively new astronaut in

548

00:23:46,549 --> 00:23:43,840

the mid 80s i was blessed

549

00:23:48,950 --> 00:23:46,559

to know and support and work with the

550

00:23:50,390 --> 00:23:48,960

challenger crew

551  
00:23:53,029 --> 00:23:50,400  
and it was a privilege

552  
00:23:56,470 --> 00:23:53,039  
that i will never forget

553  
00:23:58,870 --> 00:23:56,480  
then in the return to flight days uh

554  
00:24:01,269 --> 00:23:58,880  
i began to understand more about the

555  
00:24:04,149 --> 00:24:01,279  
system and the program and the

556  
00:24:06,070 --> 00:24:04,159  
sacrifices and what we had to do and and

557  
00:24:08,549 --> 00:24:06,080  
in those days i spent a lot of time in

558  
00:24:10,549 --> 00:24:08,559  
washington and i uh my favorite thing to

559  
00:24:12,149 --> 00:24:10,559  
do in the mornings was to go jog around

560  
00:24:14,950 --> 00:24:12,159  
the memorial mall

561  
00:24:17,269 --> 00:24:14,960  
and i would get to the lincoln memorial

562  
00:24:19,510 --> 00:24:17,279  
and i would stop and i would run up the

563  
00:24:21,430 --> 00:24:19,520

steps and turn to the left because the

564

00:24:23,830 --> 00:24:21,440

gettysburg address is on the wall to the

565

00:24:25,190 --> 00:24:23,840

left and i would sit down

566

00:24:28,789 --> 00:24:25,200

on the granite

567

00:24:30,230 --> 00:24:28,799

and read a loud gettysburg address

568

00:24:31,909 --> 00:24:30,240

the guards thought i was weird for a

569

00:24:32,950 --> 00:24:31,919

while but they got used to me after a

570

00:24:35,110 --> 00:24:32,960

while and

571

00:24:37,669 --> 00:24:35,120

tourists would look at me and point but

572

00:24:39,510 --> 00:24:37,679

but i would read it

573

00:24:42,149 --> 00:24:39,520

well then later on the second blessing

574

00:24:43,430 --> 00:24:42,159

came when i had the opportunity to fly

575

00:24:48,149 --> 00:24:43,440

space shuttle

576

00:24:50,630 --> 00:24:48,159

was far more effective far safer far

577

00:24:51,590 --> 00:24:50,640

better than the one that had gone before

578

00:24:53,430 --> 00:24:51,600

me

579

00:24:55,510 --> 00:24:53,440

and the sacrifice of these seven

580

00:24:57,909 --> 00:24:55,520

contributed greatly to me being able to

581

00:25:01,750 --> 00:24:57,919

fly in a far safer far better far more

582

00:25:02,870 --> 00:25:01,760

effective space shuttle

583

00:25:05,110 --> 00:25:02,880

now

584

00:25:06,870 --> 00:25:05,120

today as the chairman of the board of

585

00:25:08,870 --> 00:25:06,880

the astronaut memorial foundation is an

586

00:25:12,070 --> 00:25:08,880

additional privilege and blessing to be

587

00:25:14,310 --> 00:25:12,080

here with with you today to do this

588

00:25:17,110 --> 00:25:14,320

but as i was thinking about what my

589

00:25:18,789 --> 00:25:17,120

message ought to be as the chairman

590

00:25:20,549 --> 00:25:18,799

you know i could have made a long speech

591

00:25:22,710 --> 00:25:20,559

or it could make an

592

00:25:24,630 --> 00:25:22,720

almost a no speech but

593

00:25:26,390 --> 00:25:24,640

in those days when i was in washington i

594

00:25:27,669 --> 00:25:26,400

would sit up there and read the

595

00:25:29,669 --> 00:25:27,679

the

596

00:25:32,149 --> 00:25:29,679

gettysburg address

597

00:25:33,990 --> 00:25:32,159

out loud there was a certain part of it

598

00:25:36,230 --> 00:25:34,000

that began to take a different meaning

599

00:25:38,710 --> 00:25:36,240

for me during the return to flight days

600

00:25:41,590 --> 00:25:38,720

and in closing i want to read that part

601  
00:25:43,669 --> 00:25:41,600  
of the gettysburg address

602  
00:25:46,149 --> 00:25:43,679  
it is for us the living rather to be

603  
00:25:48,789 --> 00:25:46,159  
dedicated here to the unfinished work

604  
00:25:50,470 --> 00:25:48,799  
which they who fought here thus far so

605  
00:25:52,710 --> 00:25:50,480  
nobly advanced

606  
00:25:55,350 --> 00:25:52,720  
it is rather for us to be here dedicated

607  
00:25:57,909 --> 00:25:55,360  
to the great task remaining before us

608  
00:26:00,470 --> 00:25:57,919  
that from these honored day at dead we

609  
00:26:02,310 --> 00:26:00,480  
take increased devotion to that cause

610  
00:26:04,310 --> 00:26:02,320  
for which they gave the last full

611  
00:26:06,870 --> 00:26:04,320  
measure of devotion

612  
00:26:09,430 --> 00:26:06,880  
that we here highly resolve that these

613  
00:26:22,230 --> 00:26:09,440

dead shall not have died in vain thank

614

00:26:26,470 --> 00:26:23,669

bob cabana

615

00:26:28,549 --> 00:26:26,480

is director of the kennedy space center

616

00:26:30,950 --> 00:26:28,559

and provides leadership to all of the

617

00:26:33,269 --> 00:26:30,960

personnel at the center

618

00:26:36,549 --> 00:26:33,279

he is also a former astronaut

619

00:26:38,789 --> 00:26:36,559

who has flown into space four times

620

00:26:42,230 --> 00:26:38,799

twice as a shuttle pilot

621

00:26:44,950 --> 00:26:42,240

and twice as a shuttle commander

622

00:26:46,950 --> 00:26:44,960

he's a retired marine corps colonel and

623

00:26:56,950 --> 00:26:46,960

a former test pilot

624

00:27:01,029 --> 00:26:58,470

well it's really an honor for me to be

625

00:27:03,510 --> 00:27:01,039

here today to help honor those uh behind

626  
00:27:05,029 --> 00:27:03,520  
me on this mirror

627  
00:27:06,630 --> 00:27:05,039  
you know those of us who are old enough

628  
00:27:08,630 --> 00:27:06,640  
to remember

629  
00:27:09,990 --> 00:27:08,640  
you know you we can probably tell you

630  
00:27:12,870 --> 00:27:10,000  
exactly

631  
00:27:16,310 --> 00:27:12,880  
where they were or what they were doing

632  
00:27:17,750 --> 00:27:16,320  
you know the morning of january 28 1986

633  
00:27:20,470 --> 00:27:17,760  
when we lost the space shuttle

634  
00:27:22,389 --> 00:27:20,480  
challenger in her crew of seven

635  
00:27:25,110 --> 00:27:22,399  
much like the assassination of president

636  
00:27:29,590 --> 00:27:25,120  
kennedy uh the apollo 11 landing on the

637  
00:27:32,070 --> 00:27:29,600  
moon uh september 11 2001

638  
00:27:33,990 --> 00:27:32,080

all of these are moments that define our

639

00:27:35,590 --> 00:27:34,000

history

640

00:27:37,110 --> 00:27:35,600

i was a newly selected astronaut

641

00:27:38,710 --> 00:27:37,120

candidate

642

00:27:40,870 --> 00:27:38,720

with seven months of training under my

643

00:27:42,549 --> 00:27:40,880

belt taking a class in one of the single

644

00:27:44,710 --> 00:27:42,559

systems trainers learning about the

645

00:27:47,029 --> 00:27:44,720

orbiter's orbital maneuvering system and

646

00:27:50,310 --> 00:27:47,039

reaction control systems

647

00:27:52,070 --> 00:27:50,320

when we lost challenger

648

00:27:52,870 --> 00:27:52,080

when our class was interrupted to tell

649

00:27:54,310 --> 00:27:52,880

us

650

00:27:56,389 --> 00:27:54,320

what had happened

651

00:27:58,870 --> 00:27:56,399

there was sheer disbelief

652

00:28:00,789 --> 00:27:58,880

we were unwilling to accept the news

653

00:28:03,830 --> 00:28:00,799

that had been given to us that we had

654

00:28:05,510 --> 00:28:03,840

really lost an orbiter and it's crew

655

00:28:07,510 --> 00:28:05,520

surely they'd aborted

656

00:28:09,029 --> 00:28:07,520

they had it wrong we didn't lose the

657

00:28:10,789 --> 00:28:09,039

crew

658

00:28:13,590 --> 00:28:10,799

but watching the launch

659

00:28:15,190 --> 00:28:13,600

over and over again on tv

660

00:28:18,389 --> 00:28:15,200

reality set in

661

00:28:21,029 --> 00:28:18,399

and it was a really bad day

662

00:28:22,870 --> 00:28:21,039

as an astronaut candidate uh five of us

663

00:28:25,510 --> 00:28:22,880

in my class shared an office next door

664

00:28:27,830 --> 00:28:25,520

to the 511 challenger crew

665

00:28:31,750 --> 00:28:27,840

and one of my absolute fondest memories

666

00:28:33,510 --> 00:28:31,760

is of el onozuka one saturday morning

667

00:28:35,110 --> 00:28:33,520

now in the astronaut office there's

668

00:28:36,789 --> 00:28:35,120

nothing lower than an astronaut

669

00:28:39,029 --> 00:28:36,799

candidate

670

00:28:40,549 --> 00:28:39,039

and an assigned crew member a few months

671

00:28:42,950 --> 00:28:40,559

from flight

672

00:28:44,710 --> 00:28:42,960

surely doesn't have time to dedicate to

673

00:28:46,630 --> 00:28:44,720

any of us

674

00:28:49,510 --> 00:28:46,640

but al did

675

00:28:52,789 --> 00:28:49,520

early on he made me feel welcome

676

00:28:55,029 --> 00:28:52,799

he took time from his busy schedule

677

00:28:56,389 --> 00:28:55,039

to talk with me and help me get settled

678

00:28:58,710 --> 00:28:56,399

in the office

679

00:29:00,389 --> 00:28:58,720

and in the uh community he this one

680

00:29:01,990 --> 00:29:00,399

saturday morning coming up

681

00:29:03,590 --> 00:29:02,000

i met him at the top of the stairs and

682

00:29:05,350 --> 00:29:03,600

hey bob how you doing

683

00:29:06,950 --> 00:29:05,360

and he says you know hey if you ever

684

00:29:08,230 --> 00:29:06,960

need to work on your car

685

00:29:09,909 --> 00:29:08,240

bring it over to my garage i know you're

686

00:29:12,389 --> 00:29:09,919

not settled yet i got all the tools that

687

00:29:16,310 --> 00:29:12,399

you need now i'll help you i mean that's

688

00:29:18,389 --> 00:29:16,320

a memory that i will treasure forever

689

00:29:20,230 --> 00:29:18,399

once we accepted the loss

690

00:29:22,230 --> 00:29:20,240

the long process of under what

691

00:29:25,750 --> 00:29:22,240

understanding what happened

692

00:29:28,310 --> 00:29:25,760

in uh bringing us back to flight began

693

00:29:31,350 --> 00:29:28,320

as we recovered the vehicle from the sea

694

00:29:32,549 --> 00:29:31,360

the story started coming together

695

00:29:34,549 --> 00:29:32,559

seeing the pieces of the crew

696

00:29:37,029 --> 00:29:34,559

compartment laid out on the on the

697

00:29:38,070 --> 00:29:37,039

cement here at kennedy space center out

698

00:29:40,389 --> 00:29:38,080

in the open

699

00:29:42,710 --> 00:29:40,399

recording the switch positions of the

700

00:29:45,510 --> 00:29:42,720

consoles in the crew compartment was a

701  
00:29:47,029 --> 00:29:45,520  
very sobering task

702  
00:29:48,149 --> 00:29:47,039  
it's no way to bring a space shuttle

703  
00:29:49,909 --> 00:29:48,159  
home

704  
00:29:52,789 --> 00:29:49,919  
and unfortunately it wasn't the last

705  
00:29:54,470 --> 00:29:52,799  
time we would have to do it

706  
00:29:56,710 --> 00:29:54,480  
we learned many lessons

707  
00:29:58,310 --> 00:29:56,720  
from the loss of challenger

708  
00:30:00,389 --> 00:29:58,320  
in the vehicle that returned to flight

709  
00:30:02,310 --> 00:30:00,399  
two and a half years later

710  
00:30:04,870 --> 00:30:02,320  
may have looked the same

711  
00:30:08,470 --> 00:30:04,880  
but had hundreds of changes to make it

712  
00:30:10,630 --> 00:30:08,480  
safer and more reliable

713  
00:30:12,549 --> 00:30:10,640

the challenger crew will be forever

714

00:30:15,190 --> 00:30:12,559

young in our minds

715

00:30:17,190 --> 00:30:15,200

their legacy is the challenger centers

716

00:30:18,710 --> 00:30:17,200

and an inspiration that motivates our

717

00:30:21,029 --> 00:30:18,720

children to learn

718

00:30:23,029 --> 00:30:21,039

and aspire to careers in math science

719

00:30:25,590 --> 00:30:23,039

and engineering

720

00:30:27,350 --> 00:30:25,600

they've shown us that exploration is not

721

00:30:29,669 --> 00:30:27,360

without risk

722

00:30:32,149 --> 00:30:29,679

but that we can learn from our mistakes

723

00:30:34,710 --> 00:30:32,159

and be better for them in the end

724

00:30:36,950 --> 00:30:34,720

they continue to urge us forward to

725

00:30:39,269 --> 00:30:36,960

explore and to never quit

726

00:30:41,990 --> 00:30:39,279

just because it's hard

727

00:30:44,070 --> 00:30:42,000

we are better for having known them

728

00:30:46,470 --> 00:30:44,080

they are a part of us forever

729

00:30:49,190 --> 00:30:46,480

and we will not let them down

730

00:30:50,710 --> 00:30:49,200

we will continue to strive to be better

731

00:30:53,190 --> 00:30:50,720

to explore

732

00:30:55,110 --> 00:30:53,200

to expand our knowledge of our universe

733

00:31:06,630 --> 00:30:55,120

and to reach beyond

734

00:31:11,269 --> 00:31:09,430

the astronauts memorial foundation

735

00:31:13,509 --> 00:31:11,279

honors those astronauts who have made

736

00:31:14,710 --> 00:31:13,519

the ultimate sacrifice for the space

737

00:31:16,310 --> 00:31:14,720

program

738

00:31:19,110 --> 00:31:16,320

we do this of course with the space

739

00:31:21,990 --> 00:31:19,120

mirror memorial but also with our

740

00:31:25,990 --> 00:31:22,000

educational initiatives which serve as a

741

00:31:28,310 --> 00:31:26,000

living memorial to those astronauts

742

00:31:29,590 --> 00:31:28,320

alan shepard was the first american in

743

00:31:31,669 --> 00:31:29,600

space

744

00:31:33,430 --> 00:31:31,679

he was one of only 12 human beings to

745

00:31:35,430 --> 00:31:33,440

have walked on the moon

746

00:31:37,750 --> 00:31:35,440

and he was one of the early members of

747

00:31:39,750 --> 00:31:37,760

the board of directors of the astronauts

748

00:31:41,269 --> 00:31:39,760

memorial foundation and a very active

749

00:31:42,789 --> 00:31:41,279

and important member

750

00:31:44,710 --> 00:31:42,799

upon his death

751  
00:31:47,430 --> 00:31:44,720  
we established the alan shepard

752  
00:31:49,590 --> 00:31:47,440  
technology and education award

753  
00:31:52,549 --> 00:31:49,600  
which is presented every year

754  
00:31:55,269 --> 00:31:52,559  
to a k-12 educator who has made an

755  
00:31:59,029 --> 00:31:55,279  
outstanding contribution in educational

756  
00:32:01,669 --> 00:31:59,039  
technology it's presented jointly by amf

757  
00:32:04,710 --> 00:32:01,679  
nasa and the space foundation

758  
00:32:08,070 --> 00:32:04,720  
the 2009 winner of the allen shepard

759  
00:32:11,269 --> 00:32:08,080  
award was rick soria who was assistant

760  
00:32:13,269 --> 00:32:11,279  
principal of choctohachi high school in

761  
00:32:15,509 --> 00:32:13,279  
fort walton beach

762  
00:32:17,830 --> 00:32:15,519  
rick was selected for his role

763  
00:32:18,789 --> 00:32:17,840

in creating the engineers for america

764

00:32:22,230 --> 00:32:18,799

program

765

00:32:25,190 --> 00:32:22,240

an innovative initiative that motivates

766

00:32:27,110 --> 00:32:25,200

students to major in science technology

767

00:32:29,509 --> 00:32:27,120

engineering and mathematics

768

00:32:32,789 --> 00:32:29,519

by having them experience hands-on

769

00:32:34,710 --> 00:32:32,799

aviation and aerospace activities it's a

770

00:32:36,630 --> 00:32:34,720

pleasure to introduce a winner of the

771

00:32:44,789 --> 00:32:36,640

alan shepard technology and education

772

00:32:48,870 --> 00:32:47,269

good morning ladies and gentlemen

773

00:32:51,350 --> 00:32:48,880

a few years ago an engineering friend of

774

00:32:53,350 --> 00:32:51,360

mine told me that we were short over 60

775

00:32:55,350 --> 00:32:53,360

000 native born engineers in the

776  
00:32:57,269 --> 00:32:55,360  
department of defense we got to thinking

777  
00:32:58,870 --> 00:32:57,279  
about that did some research we found

778  
00:33:00,950 --> 00:32:58,880  
that we lose many of those students at

779  
00:33:03,350 --> 00:33:00,960  
about the fourth or fifth grade

780  
00:33:04,710 --> 00:33:03,360  
so our initiative targets that student

781  
00:33:06,149 --> 00:33:04,720  
population

782  
00:33:08,230 --> 00:33:06,159  
the okaloosa county school district

783  
00:33:10,470 --> 00:33:08,240  
where i work has partnered with the

784  
00:33:12,789 --> 00:33:10,480  
united states air force armament museum

785  
00:33:15,029 --> 00:33:12,799  
at eglin to develop stem experiments for

786  
00:33:17,509 --> 00:33:15,039  
students based on the aerospace exhibits

787  
00:33:19,190 --> 00:33:17,519  
that are on display at the museum

788  
00:33:21,909 --> 00:33:19,200

the alan shepard award has helped us

789

00:33:24,950 --> 00:33:21,919

advance our efforts greatly first in

790

00:33:27,909 --> 00:33:24,960

november of 2009 the astronauts memorial

791

00:33:30,230 --> 00:33:27,919

foundation partnered with me to perform

792

00:33:32,789 --> 00:33:30,240

the sts-125

793

00:33:34,710 --> 00:33:32,799

mission accomplished project 50 high

794

00:33:36,630 --> 00:33:34,720

school students from four

795

00:33:38,549 --> 00:33:36,640

neighboring high schools

796

00:33:41,029 --> 00:33:38,559

participated

797

00:33:42,389 --> 00:33:41,039

the amf team of walt jaworski and gene

798

00:33:44,789 --> 00:33:42,399

tavares taught these students how to

799

00:33:46,950 --> 00:33:44,799

create movies on dvds for their schools

800

00:33:48,470 --> 00:33:46,960

based on the sts-125

801  
00:33:49,990 --> 00:33:48,480  
mission

802  
00:33:52,789 --> 00:33:50,000  
then last year the national science

803  
00:33:54,549 --> 00:33:52,799  
teachers association included an article

804  
00:33:56,950 --> 00:33:54,559  
describing our stem initiative and

805  
00:33:58,789 --> 00:33:56,960  
methodology in our national newspaper

806  
00:34:01,190 --> 00:33:58,799  
as a result we received emails from

807  
00:34:02,630 --> 00:34:01,200  
teachers across the country asking us

808  
00:34:04,310 --> 00:34:02,640  
about our experiments and how we went

809  
00:34:06,230 --> 00:34:04,320  
about doing them

810  
00:34:07,750 --> 00:34:06,240  
then last july the stem florida folks

811  
00:34:09,750 --> 00:34:07,760  
were kind enough to recognize our

812  
00:34:11,349 --> 00:34:09,760  
efforts with their improved student

813  
00:34:12,790 --> 00:34:11,359

outcomes award

814

00:34:14,389 --> 00:34:12,800

this was followed by an article in a

815

00:34:16,550 --> 00:34:14,399

recent florida monthly magazine

816

00:34:20,470 --> 00:34:16,560

identifying me as one of 21 intriguing

817

00:34:23,589 --> 00:34:20,480

floridians for developing efa news must

818

00:34:26,389 --> 00:34:25,030

the allen shepherd award in our

819

00:34:28,389 --> 00:34:26,399

collaboration with the astronauts

820

00:34:30,310 --> 00:34:28,399

memorial foundation is making a

821

00:34:31,750 --> 00:34:30,320

difference in the education of students

822

00:34:34,069 --> 00:34:31,760

and teachers

823

00:34:35,510 --> 00:34:34,079

to date almost 100 teachers and over

824

00:34:37,669 --> 00:34:35,520

three thousand students have been to the

825

00:34:39,109 --> 00:34:37,679

museum to perform our experiments

826  
00:34:41,510 --> 00:34:39,119  
teachers report that students are

827  
00:34:43,750 --> 00:34:41,520  
genuinely engaged in learning stem

828  
00:34:45,430 --> 00:34:43,760  
concepts students also display a growing

829  
00:34:47,349 --> 00:34:45,440  
interest in stem and in their

830  
00:34:49,270 --> 00:34:47,359  
assessments they demonstrate improved

831  
00:34:50,550 --> 00:34:49,280  
academic achievement after their museum

832  
00:34:52,230 --> 00:34:50,560  
visits

833  
00:34:54,710 --> 00:34:52,240  
but the award has especially encouraged

834  
00:34:56,790 --> 00:34:54,720  
our sponsors we are funded exclusively

835  
00:34:58,790 --> 00:34:56,800  
by grants we are not full-timers we all

836  
00:35:00,310 --> 00:34:58,800  
do this on our own time

837  
00:35:01,750 --> 00:35:00,320  
the shepherd award has been instrumental

838  
00:35:04,310 --> 00:35:01,760

in attracting sponsors such as the

839

00:35:06,310 --> 00:35:04,320

national defense education program the

840

00:35:08,470 --> 00:35:06,320

boeing company the national defense

841

00:35:10,950 --> 00:35:08,480

industrial association target stores and

842

00:35:12,630 --> 00:35:10,960

others to provide us grant funding

843

00:35:14,390 --> 00:35:12,640

in fact one of our contacts with the

844

00:35:16,069 --> 00:35:14,400

national defense education program is

845

00:35:17,750 --> 00:35:16,079

working to get our lessons online so

846

00:35:20,150 --> 00:35:17,760

teachers everywhere can have access to

847

00:35:21,349 --> 00:35:20,160

them so clearly the alan shepard award

848

00:35:23,670 --> 00:35:21,359

has provided us a great deal of

849

00:35:25,589 --> 00:35:23,680

attention and resource support and we

850

00:35:27,589 --> 00:35:25,599

are truly grateful

851

00:35:30,390 --> 00:35:27,599

john rogers the superintendent of a

852

00:35:32,630 --> 00:35:30,400

neighboring school district once noted

853

00:35:34,150 --> 00:35:32,640

all students can fly some just need a

854

00:35:36,470 --> 00:35:34,160

longer runway

855

00:35:38,390 --> 00:35:36,480

the amf and shepard award along with our

856

00:35:40,550 --> 00:35:38,400

sponsors are helping us build longer

857

00:35:42,550 --> 00:35:40,560

runways for many students

858

00:35:44,470 --> 00:35:42,560

on this day when we remember the

859

00:35:46,230 --> 00:35:44,480

challenger crew and those who have made

860

00:35:48,069 --> 00:35:46,240

the ultimate sacrifice in our nation's

861

00:35:49,910 --> 00:35:48,079

exploration of space

862

00:35:51,750 --> 00:35:49,920

it is fitting to pause and challenge

863

00:35:53,990 --> 00:35:51,760

each other to become more involved in

864

00:35:55,589 --> 00:35:54,000

the stem education of our students

865

00:35:58,710 --> 00:35:55,599

in the 80s

866

00:36:00,710 --> 00:35:58,720

nasa scientists astronauts and engineers

867

00:36:02,710 --> 00:36:00,720

collaborated with educators by inviting

868

00:36:04,710 --> 00:36:02,720

a teacher into space

869

00:36:06,470 --> 00:36:04,720

today the astronauts memorial foundation

870

00:36:08,470 --> 00:36:06,480

collaborates with educators by

871

00:36:11,109 --> 00:36:08,480

supporting stem initiatives like our

872

00:36:13,190 --> 00:36:11,119

engineers for america and together we

873

00:36:14,870 --> 00:36:13,200

remain committed to the stem education

874

00:36:17,109 --> 00:36:14,880

of our students

875

00:36:19,190 --> 00:36:17,119

by this continuing collaboration we

876

00:36:21,829 --> 00:36:19,200

believe that the challenger mission

877

00:36:23,190 --> 00:36:21,839

vision and memory live on in each of our

878

00:36:25,109 --> 00:36:23,200

students

879

00:36:26,710 --> 00:36:25,119

the allen shepard award has been and

880

00:36:28,390 --> 00:36:26,720

will continue to be instrumental in

881

00:36:31,430 --> 00:36:28,400

helping us achieve our engineers for

882

00:36:32,470 --> 00:36:31,440

america stem goals but we need your help

883

00:36:34,710 --> 00:36:32,480

too

884

00:36:36,230 --> 00:36:34,720

each of us need to do our part

885

00:36:38,710 --> 00:36:36,240

to ensure america's continued

886

00:36:40,390 --> 00:36:38,720

technological and defense supremacy

887

00:36:42,230 --> 00:36:40,400

every teacher knows that there are few

888

00:36:44,069 --> 00:36:42,240

endeavors more rewarding than the

889

00:36:45,670 --> 00:36:44,079

education of the next generation of

890

00:36:47,349 --> 00:36:45,680

american explorers

891

00:36:48,950 --> 00:36:47,359

so i'm asking each of you to partner

892

00:36:51,430 --> 00:36:48,960

with us and to get involved in the stem

893

00:36:53,190 --> 00:36:51,440

education in your community schools

894

00:36:55,030 --> 00:36:53,200

we need to start today

895

00:37:03,670 --> 00:36:55,040

because the future beckons

896

00:37:03,680 --> 00:37:07,349

thank you

897

00:37:11,990 --> 00:37:09,750

william gerstenmaier is the associate

898

00:37:13,670 --> 00:37:12,000

administrator for space operations at

899

00:37:17,829 --> 00:37:13,680

nasa

900

00:37:20,310 --> 00:37:17,839

space

901  
00:37:22,550 --> 00:37:20,320  
he has programmatic oversight for the

902  
00:37:25,430 --> 00:37:22,560  
international space station space

903  
00:37:26,950 --> 00:37:25,440  
shuttle space communications and space

904  
00:37:28,950 --> 00:37:26,960  
launch vehicles

905  
00:37:30,790 --> 00:37:28,960  
he has been a close friend

906  
00:37:33,190 --> 00:37:30,800  
of the astronauts memorial foundation

907  
00:37:35,589 --> 00:37:33,200  
and has attended every ceremony of any

908  
00:37:37,990 --> 00:37:35,599  
type that we've had for the past decade

909  
00:37:49,190 --> 00:37:38,000  
it's my honor to introduce william

910  
00:37:52,630 --> 00:37:50,550  
thank you very much

911  
00:37:55,430 --> 00:37:52,640  
um i'm honored to be here to speak with

912  
00:37:57,829 --> 00:37:55,440  
you today again this year

913  
00:37:59,109 --> 00:37:57,839

this is the most difficult speech that i

914

00:38:01,670 --> 00:37:59,119

give

915

00:38:03,990 --> 00:38:01,680

this speech becomes much more than words

916

00:38:06,069 --> 00:38:04,000

as i reflect on the failings of the

917

00:38:08,230 --> 00:38:06,079

human space flight team

918

00:38:10,310 --> 00:38:08,240

i was present at nasa and involved with

919

00:38:11,750 --> 00:38:10,320

the space shuttle and space station at

920

00:38:13,270 --> 00:38:11,760

both the challenger and columbia

921

00:38:15,270 --> 00:38:13,280

disasters

922

00:38:17,670 --> 00:38:15,280

today i remain an active part of the

923

00:38:20,150 --> 00:38:17,680

human space flight team and the lessons

924

00:38:23,190 --> 00:38:20,160

learned from those tragedies are not

925

00:38:25,510 --> 00:38:23,200

academic or simple lessons but our

926  
00:38:28,710 --> 00:38:25,520  
lessons are better lessons that must be

927  
00:38:32,069 --> 00:38:28,720  
implemented and learned every day

928  
00:38:35,190 --> 00:38:32,079  
it's not easy to look back and reflect

929  
00:38:36,630 --> 00:38:35,200  
the crews lost were my friends

930  
00:38:38,550 --> 00:38:36,640  
co-workers

931  
00:38:40,630 --> 00:38:38,560  
and i saw an engineering team that i

932  
00:38:43,109 --> 00:38:40,640  
love fail

933  
00:38:46,390 --> 00:38:43,119  
after challenger i dedicated myself to

934  
00:38:49,109 --> 00:38:46,400  
never allowing another tragedy to occur

935  
00:38:50,630 --> 00:38:49,119  
however colombia occurred

936  
00:38:52,630 --> 00:38:50,640  
i failed

937  
00:38:55,030 --> 00:38:52,640  
and the team failed

938  
00:38:57,270 --> 00:38:55,040

the seeds of columbia failure were

939

00:38:59,030 --> 00:38:57,280

present with sts-1

940

00:39:02,069 --> 00:38:59,040

and we missed them

941

00:39:04,390 --> 00:39:02,079

we learned that little things that seem

942

00:39:06,550 --> 00:39:04,400

harmless can become

943

00:39:08,790 --> 00:39:06,560

catastrophic events

944

00:39:10,710 --> 00:39:08,800

we need to be ever vigilant and remember

945

00:39:13,349 --> 00:39:10,720

that we are human

946

00:39:15,510 --> 00:39:13,359

and as humans we will make errors

947

00:39:16,630 --> 00:39:15,520

and we need to ask for help

948

00:39:19,510 --> 00:39:16,640

and check

949

00:39:21,589 --> 00:39:19,520

and double check our work

950

00:39:23,589 --> 00:39:21,599

we cannot let the fear of failure stop

951  
00:39:25,430 --> 00:39:23,599  
us from doing the challenging and risky

952  
00:39:27,750 --> 00:39:25,440  
work of discovery

953  
00:39:29,510 --> 00:39:27,760  
i see the courage of the families

954  
00:39:31,270 --> 00:39:29,520  
i see the good work that can come from

955  
00:39:32,790 --> 00:39:31,280  
the tragedy such as the challenger

956  
00:39:34,069 --> 00:39:32,800  
center and their efforts with student

957  
00:39:36,390 --> 00:39:34,079  
education

958  
00:39:38,470 --> 00:39:36,400  
i also know the wonderful and almost

959  
00:39:40,550 --> 00:39:38,480  
impossible things that this human space

960  
00:39:42,470 --> 00:39:40,560  
flight team can accomplish

961  
00:39:45,430 --> 00:39:42,480  
the human space flight team has learned

962  
00:39:47,910 --> 00:39:45,440  
tremendous lessons from these events

963  
00:39:50,230 --> 00:39:47,920

there is no better team in the world

964

00:39:52,310 --> 00:39:50,240

than the human space flight team and we

965

00:39:54,069 --> 00:39:52,320

are no better than we pull together and

966

00:39:56,069 --> 00:39:54,079

stay focused

967

00:39:58,390 --> 00:39:56,079

the ability to come back stronger from

968

00:40:00,150 --> 00:39:58,400

adversity gives me the strength to work

969

00:40:01,990 --> 00:40:00,160

with the teams and press on with new

970

00:40:05,030 --> 00:40:02,000

discoveries and see things such as the

971

00:40:07,910 --> 00:40:05,040

international space station come to life

972

00:40:10,710 --> 00:40:07,920

130 years ago the world's first purely

973

00:40:13,430 --> 00:40:10,720

scientific expedition set sail from port

974

00:40:16,069 --> 00:40:13,440

portsmouth england on a four-year

975

00:40:17,510 --> 00:40:16,079

70 000 mile journey

976  
00:40:19,349 --> 00:40:17,520  
during the course of the voyage the

977  
00:40:20,790 --> 00:40:19,359  
discoveries of the scientists and crew

978  
00:40:22,710 --> 00:40:20,800  
formed the basis of the current

979  
00:40:25,750 --> 00:40:22,720  
knowledge of the oceans that cover three

980  
00:40:27,349 --> 00:40:25,760  
quarters of our planet

981  
00:40:29,589 --> 00:40:27,359  
including the deepest section of the

982  
00:40:31,750 --> 00:40:29,599  
ocean that was ever discovered and was

983  
00:40:34,230 --> 00:40:31,760  
named for the ship that discovered it

984  
00:40:37,109 --> 00:40:34,240  
these discoveries were not free these

985  
00:40:40,309 --> 00:40:37,119  
discoveries were part of the hms

986  
00:40:42,390 --> 00:40:40,319  
challenger who returned to port without

987  
00:40:44,870 --> 00:40:42,400  
a large portion of their crew

988  
00:40:47,109 --> 00:40:44,880

these discoveries were not easy

989

00:40:49,430 --> 00:40:47,119

and and we pressed on

990

00:40:52,069 --> 00:40:49,440

25 years ago another ship named

991

00:40:55,190 --> 00:40:52,079

challenger left port faded not to return

992

00:40:56,870 --> 00:40:55,200

with the crew that she sailed this crew

993

00:40:57,990 --> 00:40:56,880

our co-workers

994

00:40:59,270 --> 00:40:58,000

friends

995

00:41:00,230 --> 00:40:59,280

teachers

996

00:41:03,990 --> 00:41:00,240

sons

997

00:41:06,309 --> 00:41:04,000

daughters mothers fathers boarded a ship

998

00:41:08,230 --> 00:41:06,319

named to honor the legacy of exploration

999

00:41:10,630 --> 00:41:08,240

and the pursuit of human knowledge our

1000

00:41:13,349 --> 00:41:10,640

most sacred pursuit with the goal of

1001  
00:41:16,309 --> 00:41:13,359  
accomplishing the same their sacrifice

1002  
00:41:18,790 --> 00:41:16,319  
was a stark brutal reminder that

1003  
00:41:21,109 --> 00:41:18,800  
our knowledge our technology our science

1004  
00:41:23,430 --> 00:41:21,119  
and our dreams are often paid for in the

1005  
00:41:25,270 --> 00:41:23,440  
dearest possible way

1006  
00:41:27,190 --> 00:41:25,280  
this has been the case throughout human

1007  
00:41:28,870 --> 00:41:27,200  
history and will be the case as long as

1008  
00:41:31,430 --> 00:41:28,880  
we're willing to push the boundaries of

1009  
00:41:32,829 --> 00:41:31,440  
our capabilities towards destinations of

1010  
00:41:35,670 --> 00:41:32,839  
which we can only

1011  
00:41:36,870 --> 00:41:35,680  
dream what we do as explorers is not

1012  
00:41:37,829 --> 00:41:36,880  
easy

1013  
00:41:38,710 --> 00:41:37,839

michael

1014

00:41:42,710 --> 00:41:38,720

dick

1015

00:41:43,910 --> 00:41:42,720

ronald ellison krista gregory and judy

1016

00:41:45,829 --> 00:41:43,920

knew this

1017

00:41:48,230 --> 00:41:45,839

and accepted the risk

1018

00:41:50,950 --> 00:41:48,240

we who remain on the ground and ask them

1019

00:41:53,829 --> 00:41:50,960

to fly failed them that day as we would

1020

00:41:56,309 --> 00:41:53,839

fail the crew of colombia 17 years later

1021

00:41:57,670 --> 00:41:56,319

and as we failed the crew of apollo 1 19

1022

00:41:59,910 --> 00:41:57,680

years before

1023

00:42:03,109 --> 00:41:59,920

the only possible compensation that we

1024

00:42:04,870 --> 00:42:03,119

can offer is our renewed devotion to the

1025

00:42:06,950 --> 00:42:04,880

jobs we have been asked to do by the

1026  
00:42:08,390 --> 00:42:06,960  
nation to explore the universe that

1027  
00:42:10,470 --> 00:42:08,400  
surrounds us

1028  
00:42:13,190 --> 00:42:10,480  
we seek to answer the most difficult

1029  
00:42:15,829 --> 00:42:13,200  
questions imaginable and formulate new

1030  
00:42:18,710 --> 00:42:15,839  
questions the hubble telescope is

1031  
00:42:20,790 --> 00:42:18,720  
rewriting astronomy textbooks every day

1032  
00:42:23,270 --> 00:42:20,800  
the farthest seen galaxy was just

1033  
00:42:24,150 --> 00:42:23,280  
reported yesterday the space station is

1034  
00:42:26,150 --> 00:42:24,160  
proving

1035  
00:42:28,150 --> 00:42:26,160  
is providing insight into basic

1036  
00:42:30,950 --> 00:42:28,160  
biological processes that will change

1037  
00:42:33,030 --> 00:42:30,960  
the way we understand biology and affect

1038  
00:42:35,270 --> 00:42:33,040

our health here on the earth

1039

00:42:37,510 --> 00:42:35,280

apollo challenger in colombia were not

1040

00:42:39,750 --> 00:42:37,520

the first ships to carry those names and

1041

00:42:41,990 --> 00:42:39,760

they will not be the last

1042

00:42:44,470 --> 00:42:42,000

every generation stands on the shoulders

1043

00:42:46,870 --> 00:42:44,480

of the generation that came before

1044

00:42:49,270 --> 00:42:46,880

not on the shoulders of giants but of

1045

00:42:51,109 --> 00:42:49,280

ordinary men and women who performed to

1046

00:42:53,589 --> 00:42:51,119

the best of their knowledge and

1047

00:42:55,670 --> 00:42:53,599

abilities and often failed

1048

00:42:57,670 --> 00:42:55,680

the legacy of those we have lost will be

1049

00:43:00,230 --> 00:42:57,680

in the dedication to never repeat the

1050

00:43:02,710 --> 00:43:00,240

mistakes and learn from those mistakes

1051  
00:43:05,670 --> 00:43:02,720  
and learn to anticipate future problems

1052  
00:43:08,230 --> 00:43:05,680  
that are yet unknown

1053  
00:43:10,309 --> 00:43:08,240  
do not only listen to my words today

1054  
00:43:13,109 --> 00:43:10,319  
but stop today

1055  
00:43:14,470 --> 00:43:13,119  
reflect on the events of the past

1056  
00:43:17,030 --> 00:43:14,480  
digest

1057  
00:43:18,550 --> 00:43:17,040  
analyze distill the real learning from

1058  
00:43:20,710 --> 00:43:18,560  
these events

1059  
00:43:22,790 --> 00:43:20,720  
tuck this learning away in your heart

1060  
00:43:25,990 --> 00:43:22,800  
and use it every day and all that you

1061  
00:43:28,710 --> 00:43:26,000  
are doing do not be afraid of failing do

1062  
00:43:31,270 --> 00:43:28,720  
not foolishly press on but rather

1063  
00:43:33,589 --> 00:43:31,280

rededicate yourselves to expanding the

1064

00:43:36,230 --> 00:43:33,599

frontier of knowledge in a manner that

1065

00:43:55,670 --> 00:43:36,240

is fitting of the huge sacrifice made by

1066

00:44:00,230 --> 00:43:57,670

we appreciate the fact that all of you

1067

00:44:02,069 --> 00:44:00,240

have taken the time to be with us today

1068

00:44:04,390 --> 00:44:02,079

to honor and remember

1069

00:44:06,470 --> 00:44:04,400

the great men and women whom we lost on

1070

00:44:13,030 --> 00:44:06,480

challenger

1071

00:44:19,030 --> 00:44:17,109

we also remember the crews of apollo 1

1072

00:44:21,589 --> 00:44:19,040

and columbia

1073

00:44:24,550 --> 00:44:21,599

and the t-38 accidents

1074

00:44:27,349 --> 00:44:24,560

as well as all of the other astronauts

1075

00:44:30,870 --> 00:44:27,359

who made the ultimate sacrifice for our

1076

00:44:32,790 --> 00:44:30,880

nation and our space program

1077

00:44:35,510 --> 00:44:32,800

we pray for the successes of all of our

1078

00:44:39,670 --> 00:44:35,520

future astronauts who continue to lead

1079

00:44:45,430 --> 00:44:41,910

to conclude today's ceremony

1080

00:44:47,190 --> 00:44:45,440

i would like to ask june scobie rogers

1081

00:44:49,190 --> 00:44:47,200

and bill gerstenmaier

1082

00:44:50,710 --> 00:44:49,200

to place a wreath at the base of the

1083

00:45:26,710 --> 00:44:50,720

memorial

1084

00:45:26,720 --> 00:46:15,589

damn