



Hubble Laser Art

1
00:00:09,760 --> 00:00:13,110
this week at nasa

2
00:00:17,109 --> 00:00:14,709
what we have to do

3
00:00:20,150 --> 00:00:17,119
is move forward in a way that preserves

4
00:00:23,750 --> 00:00:20,160
the very best of nasa but recognizes

5
00:00:24,630 --> 00:00:23,760
that what we have invested in can now be

6
00:00:26,950 --> 00:00:24,640
done

7
00:00:28,790 --> 00:00:26,960
in partnership with others and others

8
00:00:31,349 --> 00:00:28,800
have a lot to bring to the table as well

9
00:00:33,590 --> 00:00:31,359
nasa deputy administrator lori garver

10
00:00:35,750 --> 00:00:33,600
provided keynote remarks at this year's

11
00:00:37,910 --> 00:00:35,760
international symposium for personal and

12
00:00:40,869 --> 00:00:37,920
commercial space flight held in las

13
00:00:43,270 --> 00:00:40,879

cruces new mexico with business at the

14

00:00:45,350 --> 00:00:43,280

speed of innovation the conference theme

15

00:00:47,910 --> 00:00:45,360

garver focused on nasa's vision for

16

00:00:50,470 --> 00:00:47,920

future exploration and a strong

17

00:00:52,389 --> 00:00:50,480

commercial space capability that'll spur

18

00:00:55,350 --> 00:00:52,399

job creation and strengthen the

19

00:00:59,910 --> 00:00:58,150

greg whitney thomas gonzalez torres and

20

00:01:02,549 --> 00:00:59,920

judd freiling share a special

21

00:01:04,390 --> 00:01:02,559

distinction they're nasa's newest flight

22

00:01:06,630 --> 00:01:04,400

directors in mission control at the

23

00:01:08,710 --> 00:01:06,640

johnson space center in houston they'll

24

00:01:11,510 --> 00:01:08,720

help manage international space station

25

00:01:14,390 --> 00:01:11,520

operations integrate cargo and crew

26
00:01:16,230 --> 00:01:14,400
vehicles and assist in planning future

27
00:01:18,789 --> 00:01:16,240
exploration missions

28
00:01:21,350 --> 00:01:18,799
whitney gonzalez torres and freiling

29
00:01:24,149 --> 00:01:21,360
have 40 years of combined experience at

30
00:01:28,149 --> 00:01:26,710
if the past is any indication science

31
00:01:30,230 --> 00:01:28,159
research on the now complete

32
00:01:32,710 --> 00:01:30,240
international space station the world's

33
00:01:35,510 --> 00:01:32,720
only laboratory in microgravity will

34
00:01:37,749 --> 00:01:35,520
continue to improve life here on earth

35
00:01:39,990 --> 00:01:37,759
one success story the advanced

36
00:01:42,630 --> 00:01:40,000
astroculture investigation by a team at

37
00:01:44,469 --> 00:01:42,640
the university of wisconsin-madison

38
00:01:46,550 --> 00:01:44,479

their research conducted during three

39

00:01:49,109 --> 00:01:46,560

station expeditions will help create

40

00:01:51,429 --> 00:01:49,119

high-energy low-mass food sources in

41

00:01:54,710 --> 00:01:51,439

limited volume for both long duration

42

00:01:57,270 --> 00:01:54,720

space flight and here on terra firma

43

00:02:00,230 --> 00:01:57,280

among other contributions the technology

44

00:02:03,190 --> 00:02:00,240

behind advas novel air purifier that

45

00:02:05,590 --> 00:02:03,200

kills 98 percent of airborne pathogens

46

00:02:08,550 --> 00:02:05,600

is now in widespread use in food

47

00:02:12,550 --> 00:02:08,560

preservation in doctors offices and

48

00:02:16,949 --> 00:02:14,869

mars exploration rover spirit and

49

00:02:19,270 --> 00:02:16,959

opportunity have been honored with

50

00:02:21,430 --> 00:02:19,280

popular mechanics mechanical lifetime

51
00:02:24,710 --> 00:02:21,440
achievement award for their dogged

52
00:02:27,270 --> 00:02:24,720
pursuit of exploration on the red planet

53
00:02:29,030 --> 00:02:27,280
the 2011 breakthrough awards were

54
00:02:31,589 --> 00:02:29,040
presented to the rover team at an

55
00:02:34,390 --> 00:02:31,599
invitation-only awards gala and ceremony

56
00:02:36,390 --> 00:02:34,400
in new york other awardees included fame

57
00:02:38,470 --> 00:02:36,400
director and former nasa advisory

58
00:02:40,150 --> 00:02:38,480
council member james cameron who

59
00:02:42,550 --> 00:02:40,160
received the breakthrough leadership

60
00:02:44,790 --> 00:02:42,560
award for technological innovations that

61
00:02:47,190 --> 00:02:44,800
have changed the face of filmmaking

62
00:02:49,030 --> 00:02:47,200
more on the awards and their winners is

63
00:02:51,750 --> 00:02:49,040

in the november issue of popular

64

00:02:53,190 --> 00:02:51,760

mechanics

65

00:02:54,790 --> 00:02:53,200

so governor i just wanted to tell you

66

00:02:56,070 --> 00:02:54,800

you're officially

67

00:02:57,910 --> 00:02:56,080

on campus

68

00:02:59,670 --> 00:02:57,920

florida governor rick scott and

69

00:03:02,149 --> 00:02:59,680

lieutenant governor jennifer carroll

70

00:03:04,070 --> 00:03:02,159

visited the kennedy space center center

71

00:03:05,990 --> 00:03:04,080

director bob cabana led them on a tour

72

00:03:08,390 --> 00:03:06,000

of kennedy's operations and checkout

73

00:03:09,990 --> 00:03:08,400

building where nasa's new orion

74

00:03:11,750 --> 00:03:10,000

multipurpose crew vehicle will be

75

00:03:13,830 --> 00:03:11,760

prepared for launch

76

00:03:16,309 --> 00:03:13,840

scott and carol also visited launch

77

00:03:19,030 --> 00:03:16,319

complex 40 on cape canaveral air force

78

00:03:20,390 --> 00:03:19,040

station from where spacex's falcon 9

79

00:03:22,309 --> 00:03:20,400

rocket will lift off for the

80

00:03:23,830 --> 00:03:22,319

international space station on a test

81

00:03:26,070 --> 00:03:23,840

flight for nasa

82

00:03:28,309 --> 00:03:26,080

the state's top officials also held a

83

00:03:30,869 --> 00:03:28,319

florida cabinet meeting and space

84

00:03:34,869 --> 00:03:30,879

industry roundtable at the kennedy space

85

00:03:34,879 --> 00:03:41,509

and now centerpieces

86

00:03:45,910 --> 00:03:43,430

virginia governor bob mcdonnell paid a

87

00:03:47,830 --> 00:03:45,920

visit to nasa's wallops flight facility

88

00:03:50,789 --> 00:03:47,840

for a first-hand look at the development

89

00:03:52,630 --> 00:03:50,799

of orbital sciences corporation's taurus

90

00:03:54,309 --> 00:03:52,640

ii rocket that will start carrying

91

00:03:56,789 --> 00:03:54,319

supplies to the international space

92

00:03:58,789 --> 00:03:56,799

station in 2012. orbital will be

93

00:04:00,229 --> 00:03:58,799

conducting missions for nasa under the

94

00:04:02,229 --> 00:04:00,239

agency's commercial orbital

95

00:04:04,869 --> 00:04:02,239

transportation services project and

96

00:04:06,470 --> 00:04:04,879

commercial resupply services contract

97

00:04:08,309 --> 00:04:06,480

during the visit the governor also

98

00:04:10,869 --> 00:04:08,319

received a construction update on the

99

00:04:13,429 --> 00:04:10,879

mid-atlantic regional spaceport's launch

100

00:04:15,429 --> 00:04:13,439

pad 0a from which the taurus 2 will

101
00:04:17,830 --> 00:04:15,439
launch the first taurus 2 launch is

102
00:04:19,509 --> 00:04:17,840
currently slated for early 2012.

103
00:04:20,710 --> 00:04:19,519
virginia's taking a kind of a renewed

104
00:04:22,790 --> 00:04:20,720
interest

105
00:04:24,310 --> 00:04:22,800
in everything that's going on at wallops

106
00:04:26,790 --> 00:04:24,320
i think it was a good a good opportunity

107
00:04:28,710 --> 00:04:26,800
for him to come in and kind of tour the

108
00:04:30,150 --> 00:04:28,720
facilities we have here and just just

109
00:04:33,990 --> 00:04:30,160
see what all

110
00:04:37,590 --> 00:04:36,310
just wonder where what it means and

111
00:04:39,510 --> 00:04:37,600
where it is and

112
00:04:41,510 --> 00:04:39,520
it's really interesting what's getting

113
00:04:44,310 --> 00:04:41,520

the attention of passers-by in

114

00:04:46,950 --> 00:04:44,320

baltimore's inner harbor is a unique art

115

00:04:48,950 --> 00:04:46,960

exhibit that's literally lighting up

116

00:04:51,430 --> 00:04:48,960

this tourist destination it's like a

117

00:04:53,189 --> 00:04:51,440

laser show yeah i really didn't know

118

00:04:55,510 --> 00:04:53,199

i had no idea what somebody was

119

00:04:57,830 --> 00:04:55,520

fascinating or scientific at all

120

00:04:59,430 --> 00:04:57,840

but it is science the green line

121

00:05:01,430 --> 00:04:59,440

represents the different kinds of

122

00:05:04,150 --> 00:05:01,440

information nasa's hubble space

123

00:05:05,510 --> 00:05:04,160

telescope gets when it looks out into

124

00:05:08,150 --> 00:05:05,520

the cosmos

125

00:05:10,070 --> 00:05:08,160

the real true physics that allow

126

00:05:12,469 --> 00:05:10,080

astronomers to understand what the

127

00:05:15,350 --> 00:05:12,479

object is all about we learn about the

128

00:05:17,909 --> 00:05:15,360

temperature the physical conditions we

129

00:05:19,670 --> 00:05:17,919

learn about their distance after decades

130

00:05:22,629 --> 00:05:19,680

of seeing the beautiful pictures from

131

00:05:26,230 --> 00:05:22,639

hubble artist tim roth wanted to shine a

132

00:05:29,510 --> 00:05:26,240

new light on the 21 year old newsmaker

133

00:05:32,390 --> 00:05:29,520

this is the job of art is really not to

134

00:05:35,670 --> 00:05:32,400

explain immediately is more really to

135

00:05:38,870 --> 00:05:35,680

to puzzle people so so the people are

136

00:05:41,510 --> 00:05:38,880

standing there and saying oh what's that

137

00:05:43,909 --> 00:05:41,520

so the people get interested

138

00:05:45,990 --> 00:05:43,919

while roth knows many who walk by think

139

00:05:48,950 --> 00:05:46,000

the display on the wall of the maryland

140

00:05:51,430 --> 00:05:48,960

science center looks like a heartbeat he

141

00:05:55,430 --> 00:05:51,440

says it is in a way but it's the

142

00:06:00,790 --> 00:05:57,749

i just want to say that we are we're all

143

00:06:01,749 --> 00:06:00,800

big space nuts we're all uh want the

144

00:06:04,550 --> 00:06:01,759

space

145

00:06:06,469 --> 00:06:04,560

program to continue and

146

00:06:08,390 --> 00:06:06,479

we have to keep exploring

147

00:06:09,990 --> 00:06:08,400

singer and musician peter frampton

148

00:06:12,710 --> 00:06:10,000

toured the johnson space center at the

149

00:06:15,189 --> 00:06:12,720

invitation of expedition 28 astronaut

150

00:06:17,029 --> 00:06:15,199

ron garan frampton visited the mission

151

00:06:18,950 --> 00:06:17,039

control center where he spoke with

152

00:06:21,110 --> 00:06:18,960

astronaut mike fossum aboard the

153

00:06:22,710 --> 00:06:21,120

international space station

154

00:06:24,870 --> 00:06:22,720

the guys here don't believe you're

155

00:06:28,550 --> 00:06:24,880

actually in space so can you prove it to

156

00:06:32,629 --> 00:06:30,629

we believe you

157

00:06:34,790 --> 00:06:32,639

that's amazing

158

00:06:36,550 --> 00:06:34,800

frampton stops included astronaut

159

00:06:38,710 --> 00:06:36,560

training facilities and watching

160

00:06:40,790 --> 00:06:38,720

engineers developing vehicles to explore

161

00:06:43,670 --> 00:06:40,800

the surfaces of distant planets

162

00:06:45,590 --> 00:06:43,680

asteroids or moons frampton and guerin

163

00:06:48,309 --> 00:06:45,600

corresponded while garin lived on the

164

00:06:50,469 --> 00:06:48,319

space station during expedition 28.

165

00:06:53,029 --> 00:06:50,479

karen came alive at frampton's august

166

00:06:56,710 --> 00:06:53,039

concert in san francisco via a special

167

00:07:00,629 --> 00:06:58,790

the year-long celebration of stennis

168

00:07:04,390 --> 00:07:00,639

space center's 50th anniversary

169

00:07:06,390 --> 00:07:04,400

continues it was 1961 when nasa

170

00:07:07,990 --> 00:07:06,400

announced its plans to build a rocket

171

00:07:09,270 --> 00:07:08,000

engine test facility in south

172

00:07:11,670 --> 00:07:09,280

mississippi

173

00:07:14,469 --> 00:07:11,680

stennis's rich history enrolled in the

174

00:07:16,550 --> 00:07:14,479

future of space exploration was cited at

175

00:07:18,629 --> 00:07:16,560

a center event by nasa administrator

176

00:07:21,110 --> 00:07:18,639

charlie bolt one of these days when my

177

00:07:23,909 --> 00:07:21,120

granddaughters are preparing to get on a

178

00:07:25,270 --> 00:07:23,919

rocket ship and go to mars they're going

179

00:07:26,870 --> 00:07:25,280

to have the satisfaction and their

180

00:07:28,790 --> 00:07:26,880

granddad is going to be able to tell

181

00:07:30,710 --> 00:07:28,800

them i'm comfortable with what you're

182

00:07:32,070 --> 00:07:30,720

about to do i know the engines are going

183

00:07:33,589 --> 00:07:32,080

to be good because they've been through

184

00:07:35,350 --> 00:07:33,599

stennis and they've been through the

185

00:07:37,430 --> 00:07:35,360

state of mississippi so thank you all so

186

00:07:38,469 --> 00:07:37,440

very much for what you do god bless all

187

00:07:40,390 --> 00:07:38,479

of you

188

00:07:43,029 --> 00:07:40,400

the center held the final round of its

189

00:07:45,510 --> 00:07:43,039

legends lecture series influential

190

00:07:48,230 --> 00:07:45,520

former employees and contractors join

191

00:07:50,150 --> 00:07:48,240

current employees in sharing experiences

192

00:07:52,309 --> 00:07:50,160

and contributions that have played a

193

00:07:54,790 --> 00:07:52,319

vital role in the center's development

194

00:07:57,589 --> 00:07:54,800

this this whole workforce doesn't matter

195

00:08:00,309 --> 00:07:57,599

what badge you were who you were

196

00:08:02,309 --> 00:08:00,319

was a can-do outfit

197

00:08:04,550 --> 00:08:02,319

there was nothing that you couldn't take

198

00:08:09,909 --> 00:08:04,560

on and wouldn't take home

199

00:08:15,189 --> 00:08:10,950

three

200

00:08:17,589 --> 00:08:15,199

two one we have ignition and liftoff of

201

00:08:19,510 --> 00:08:17,599

a delta ii rocket carrying nasa on an

202

00:08:23,510 --> 00:08:19,520

odyssey back to mars

203

00:08:26,629 --> 00:08:23,520

ten years ago on march 24 2001 the

204

00:08:28,629 --> 00:08:26,639

odyssey spacecraft reached mars to study

205

00:08:31,110 --> 00:08:28,639

and map the elemental composition of the

206

00:08:33,509 --> 00:08:31,120

martian surface and evaluate the red

207

00:08:35,190 --> 00:08:33,519

planet's radiation environment

208

00:08:37,430 --> 00:08:35,200

odyssey also has served as a

209

00:08:39,909 --> 00:08:37,440

communication relay for most of the data

210

00:08:42,870 --> 00:08:39,919

sent home by the phoenix lander and the

211

00:08:44,630 --> 00:08:42,880

mars rovers spirit and opportunity

212

00:08:46,550 --> 00:08:44,640

it also became the middle link for

213

00:08:49,750 --> 00:08:46,560

continuous observation of martian

214

00:08:52,470 --> 00:08:49,760

weather by nasa's mars global surveyor

215

00:08:55,829 --> 00:08:52,480

and the mars reconnaissance orbiter in

216

00:08:59,990 --> 00:08:55,839

2010 odyssey became the longest serving

217

00:09:06,630 --> 00:09:04,389

and five years later on october 26 2006

218

00:09:09,110 --> 00:09:06,640

nasa released the solar terrestrial

219

00:09:11,829 --> 00:09:09,120

relations observatory into the heavens

220

00:09:14,389 --> 00:09:11,839

to stereographically image the sun and

221

00:09:17,269 --> 00:09:14,399

its emissions the two identical

222

00:09:20,389 --> 00:09:17,279

space-based observatories stereo a and

223

00:09:22,949 --> 00:09:20,399

stereo b orbit the sun one ahead of the

224

00:09:25,190 --> 00:09:22,959

earth the other trailing this dual

225

00:09:27,350 --> 00:09:25,200

perspective allows scientists to better

226

00:09:30,550 --> 00:09:27,360

see the structure and evolution of solar

227

00:09:32,070 --> 00:09:30,560

storms as they move from the sun into

228

00:09:34,630 --> 00:09:32,080

space

229

00:09:36,870 --> 00:09:34,640

and that's this week at nasa for more on