



**Rachel Kraft Reporting, JSC**

1  
00:00:14,450 --> 00:00:11,780  
this week at NASA NASA's Mars rover

2  
00:00:15,350 --> 00:00:14,460  
Opportunity has reached its next

3  
00:00:17,269 --> 00:00:15,360  
destination

4  
00:00:19,760 --> 00:00:17,279  
three years after climbing out of

5  
00:00:22,340 --> 00:00:19,770  
Victoria crater Opportunity has

6  
00:00:25,009 --> 00:00:22,350  
completed an 11 mile trek to the rim of

7  
00:00:27,679 --> 00:00:25,019  
Endeavour crater at a spot informally

8  
00:00:30,890 --> 00:00:27,689  
named spirit point after the rover's

9  
00:00:33,200 --> 00:00:30,900  
decommissioned twin at 14 miles in

10  
00:00:35,690 --> 00:00:33,210  
diameter endeavour is an inviting

11  
00:00:37,700 --> 00:00:35,700  
worksite for opportunity orbital

12  
00:00:40,520 --> 00:00:37,710  
observations indicate that the ridges

13  
00:00:43,430 --> 00:00:40,530

along its western rim exposed rock

14

00:00:46,610 --> 00:00:43,440

outcrops older than any opportunity has

15

00:00:49,580 --> 00:00:46,620

seen so far you see in its rim evidence

16

00:00:51,439 --> 00:00:49,590

of clay minerals and clay minerals are a

17

00:00:53,959 --> 00:00:51,449

class of minerals that form in neutral

18

00:00:56,569 --> 00:00:53,969

pH water so this is very exciting from

19

00:00:59,029 --> 00:00:56,579

the possibility of Mars B at one time

20

00:01:01,130 --> 00:00:59,039

being a habitable planet opportunity and

21

00:01:04,729 --> 00:01:01,140

spirit completed their three-month prime

22

00:01:07,160 --> 00:01:04,739

missions on Mars in April 2004 both

23

00:01:09,530 --> 00:01:07,170

Rovers continued for years of Bowness

24

00:01:11,390 --> 00:01:09,540

extended missions making important

25

00:01:13,280 --> 00:01:11,400

discoveries about wet environments on

26

00:01:15,649 --> 00:01:13,290

ancient Mars that may have been

27

00:01:20,899 --> 00:01:15,659

favorable for supporting microbial life

28

00:01:22,760 --> 00:01:20,909

the 21st century will be won by those

29

00:01:25,100 --> 00:01:22,770

who innovate by those who seek

30

00:01:26,960 --> 00:01:25,110

breakthroughs by those who create that

31

00:01:29,179 --> 00:01:26,970

future and I'm here to tell you today

32

00:01:31,310 --> 00:01:29,189

that NASA is doing that Chief

33

00:01:33,170 --> 00:01:31,320

Technologist Bobby Braun and a group of

34

00:01:36,410 --> 00:01:33,180

agency officials speaking at the latest

35

00:01:38,719 --> 00:01:36,420

NASA future four held at the University

36

00:01:40,340 --> 00:01:38,729

of Maryland the day-long Future Forum

37

00:01:42,889 --> 00:01:40,350

brought together technologists

38

00:01:45,020 --> 00:01:42,899

scientists and engineers along with

39

00:01:47,630 --> 00:01:45,030

local business science technology and

40

00:01:49,370 --> 00:01:47,640

education leaders panel discussions

41

00:01:51,800 --> 00:01:49,380

addressed NASA's future role in

42

00:01:54,219 --> 00:01:51,810

advancing American innovation technology

43

00:01:56,780 --> 00:01:54,229

science engineering education and

44

00:01:58,039 --> 00:01:56,790

economic growth we are very optimistic

45

00:02:00,590 --> 00:01:58,049

about the future we're very optimistic

46

00:02:03,890 --> 00:02:00,600

about what can be done we go from dreams

47

00:02:06,800 --> 00:02:03,900

to aspiration to pursuit

48

00:02:08,810 --> 00:02:06,810

to achievement and I believe that

49

00:02:12,020 --> 00:02:08,820

sequence has been borne out time and

50

00:02:14,120 --> 00:02:12,030

time again at NASA in the past is being

51  
00:02:16,820 --> 00:02:14,130  
borne out in the present and will be

52  
00:02:18,740 --> 00:02:16,830  
borne out in the future we must take on

53  
00:02:20,840 --> 00:02:18,750  
audacious challenges as a country in

54  
00:02:22,610 --> 00:02:20,850  
order to continue to drive forward and

55  
00:02:24,920 --> 00:02:22,620  
prosper Math Science Engineering

56  
00:02:28,250 --> 00:02:24,930  
Technology these are all the things that

57  
00:02:30,440 --> 00:02:28,260  
NASA is trying to do to ensure that kids

58  
00:02:31,880 --> 00:02:30,450  
have the right tools to move forward but

59  
00:02:34,550 --> 00:02:31,890  
also the teachers have the same thing

60  
00:02:36,350 --> 00:02:34,560  
that's a future forums are planned for

61  
00:02:41,809 --> 00:02:36,360  
other university campuses around the

62  
00:02:46,160 --> 00:02:44,179  
shuttle's endeavor and discovery have

63  
00:02:49,190 --> 00:02:46,170

switched locations at the kennedy space

64

00:02:50,630 --> 00:02:49,200

center technicians move discovery out of

65

00:02:52,849 --> 00:02:50,640

the Vehicle Assembly Building and

66

00:02:58,460 --> 00:02:52,859

endeavour out of orbiter processing

67

00:03:01,429 --> 00:02:58,470

facility one the two spacecraft were

68

00:03:04,220 --> 00:03:01,439

paused briefly to allow a nose to nose

69

00:03:06,649 --> 00:03:04,230

photo opportunity before discovery was

70

00:03:09,740 --> 00:03:06,659

moved into opf one and endeavour into

71

00:03:11,690 --> 00:03:09,750

the VAB discovery is being prepped for

72

00:03:13,399 --> 00:03:11,700

public display at the smithsonian

73

00:03:16,129 --> 00:03:13,409

national air and space museum's

74

00:03:18,800 --> 00:03:16,139

udvar-hazy center in Virginia beginning

75

00:03:20,869 --> 00:03:18,810

next spring while endeavour is readied

76

00:03:22,460 --> 00:03:20,879

for its scheduled unveiling at the

77

00:03:38,490 --> 00:03:22,470

California Science Center in Los Angeles

78

00:03:42,840 --> 00:03:41,100

this is one of three successful drop

79

00:03:44,730 --> 00:03:42,850

tests of NASA's next deep space

80

00:03:46,650 --> 00:03:44,740

exploration vehicle conducted this

81

00:03:48,930 --> 00:03:46,660

summer at the Langley Research Center's

82

00:03:55,990 --> 00:03:48,940

new 1.7 million dollar hydro impact

83

00:04:06,140 --> 00:04:04,520

to NASA Langley held an official

84

00:04:08,000 --> 00:04:06,150

ribbon-cutting ceremony for the new

85

00:04:10,310 --> 00:04:08,010

facility that expands the center's

86

00:04:12,830 --> 00:04:10,320

capabilities to test and certify future

87

00:04:15,350 --> 00:04:12,840

spacecraft for water landings the lander

88

00:04:16,970 --> 00:04:15,360

facility and the vast experience of its

89

00:04:19,610 --> 00:04:16,980

langley staff provide a perfect

90

00:04:21,110 --> 00:04:19,620

combination to study the Orion

91

00:04:23,570 --> 00:04:21,120

multi-purpose crew vehicle

92

00:04:25,070 --> 00:04:23,580

options for returning to Earth the

93

00:04:26,660 --> 00:04:25,080

excellent work and the contributions

94

00:04:28,280 --> 00:04:26,670

from the langley team will continue now

95

00:04:30,590 --> 00:04:28,290

with the delivery of this unique new

96

00:04:33,080 --> 00:04:30,600

capability I have a hundred and fifteen

97

00:04:35,390 --> 00:04:33,090

feet long 90 feet wide and 20 feet deep

98

00:04:37,160 --> 00:04:35,400

the hydro impact Basin holds 1 million

99

00:04:38,960 --> 00:04:37,170

gallons of water allowing Langley

100

00:04:42,740 --> 00:04:38,970

engineers to check out the water landing

101  
00:04:44,870 --> 00:04:42,750  
properties of future spacecraft the new

102  
00:04:46,730 --> 00:04:44,880  
hydro impact Basin is located at the

103  
00:04:52,370 --> 00:04:46,740  
historic entry where Neil Armstrong

104  
00:04:57,050 --> 00:04:54,350  
Johnson Space Center's Office of

105  
00:04:59,060 --> 00:04:57,060  
Education hosted 40 high school girls as

106  
00:05:01,720 --> 00:04:59,070  
part of the women in STEM high school

107  
00:05:04,160 --> 00:05:01,730  
aerospace Scholars Program or wish

108  
00:05:06,080 --> 00:05:04,170  
during the week the young women worked

109  
00:05:07,790 --> 00:05:06,090  
together to get a real-world look at

110  
00:05:10,430 --> 00:05:07,800  
what it takes to be a scientist or

111  
00:05:12,830 --> 00:05:10,440  
engineer which meets NASA's educational

112  
00:05:14,750 --> 00:05:12,840  
goals by providing students opportunity

113  
00:05:17,030 --> 00:05:14,760

to participate in authentic hands-on

114

00:05:18,860 --> 00:05:17,040

activities using NASA's missions the

115

00:05:21,500 --> 00:05:18,870

young women worked in teams to plan a

116

00:05:23,530 --> 00:05:21,510

human mission to Mars they designed how

117

00:05:26,150 --> 00:05:23,540

to send astronauts to the red planet

118

00:05:29,150 --> 00:05:26,160

sustain life to work and research there

119

00:05:30,800 --> 00:05:29,160

and return back to earth I'm learning so

120

00:05:33,620 --> 00:05:30,810

much about the different scientific

121

00:05:37,010 --> 00:05:33,630

fields getting some advice for the

122

00:05:39,680 --> 00:05:37,020

college process and meeting some women

123

00:05:41,930 --> 00:05:39,690

in science who are really inspiring and

124

00:05:45,410 --> 00:05:41,940

kind of learning what they did to get to

125

00:05:47,900 --> 00:05:45,420

where they are today when you think of

126

00:05:49,310 --> 00:05:47,910

science and research you think it's very

127

00:05:50,900 --> 00:05:49,320

very focused

128

00:05:53,300 --> 00:05:50,910

it's very detail-oriented but in reality

129

00:05:55,310 --> 00:05:53,310

it's a lot of team work and it's a lot

130

00:05:57,500 --> 00:05:55,320

of collaboration the girls are awesome

131

00:05:59,600 --> 00:05:57,510

they're great they're they're the best

132

00:06:01,010 --> 00:05:59,610

of the best across our country and we're

133

00:06:02,540 --> 00:06:01,020

just really glad to have them here and

134

00:06:07,060 --> 00:06:02,550

be able to provide this opportunity for

135

00:06:09,980 --> 00:06:07,070

them welcome to Cleveland

136

00:06:12,230 --> 00:06:09,990

375 5th through 12th graders were part

137

00:06:14,240 --> 00:06:12,240

of a minority student education forum

138

00:06:16,190 --> 00:06:14,250

held at the Glenn Research Center in

139

00:06:19,460 --> 00:06:16,200

Cleveland there's great things in your

140

00:06:22,250 --> 00:06:19,470

future and you can do it just like all

141

00:06:23,990 --> 00:06:22,260

the people that you want to meet created

142

00:06:26,600 --> 00:06:24,000

as part of NASA's summer of innovation

143

00:06:29,060 --> 00:06:26,610

initiative the forum is designed to

144

00:06:31,520 --> 00:06:29,070

motivate minority students to pursue

145

00:06:34,310 --> 00:06:31,530

academic study in science technology

146

00:06:36,890 --> 00:06:34,320

engineering and math or stem courses and

147

00:06:39,200 --> 00:06:36,900

encourage them to become scientists and

148

00:06:41,330 --> 00:06:39,210

engineers the event featured

149

00:06:42,860 --> 00:06:41,340

inspirational talks by NASA senior

150

00:06:45,430 --> 00:06:42,870

managers astronauts

151  
00:06:48,830 --> 00:06:45,440  
and Glenn personnel set your sights high

152  
00:06:52,010 --> 00:06:48,840  
get a good education learn that science

153  
00:06:53,450 --> 00:06:52,020  
and math can be fun it's all about you

154  
00:06:56,240 --> 00:06:53,460  
to the future you're gonna be the future

155  
00:06:58,189 --> 00:06:56,250  
astronaut scientists leaders and that's

156  
00:06:59,510 --> 00:06:58,199  
why we have these programs because it's

157  
00:07:01,820 --> 00:06:59,520  
all about you

158  
00:07:03,529 --> 00:07:01,830  
students also participated in peer to

159  
00:07:06,279 --> 00:07:03,539  
peer ambassador roundtable and

160  
00:07:12,860 --> 00:07:06,289  
trailblazers panel discussions and

161  
00:07:15,409 --> 00:07:12,870  
educational activities at the close of

162  
00:07:17,719 --> 00:07:15,419  
their summer session program interns

163  
00:07:19,670 --> 00:07:17,729

from NASA's independent verification and

164

00:07:22,520 --> 00:07:19,680

validation engineering apprenticeship

165

00:07:24,830 --> 00:07:22,530

program or any ap presented their

166

00:07:27,230 --> 00:07:24,840

projects to NASA managers friends and

167

00:07:33,740 --> 00:07:27,240

family at NASA headquarters linen

168

00:07:35,570 --> 00:07:33,750

auditorium the students all with strong

169

00:07:37,100 --> 00:07:35,580

interest in stem studies science

170

00:07:39,920 --> 00:07:37,110

technology engineering and mathematics

171

00:07:42,230 --> 00:07:39,930

are paired with a mentor to work on a

172

00:07:44,629 --> 00:07:42,240

specific project over an eight-week

173

00:07:46,730 --> 00:07:44,639

period the interns come from diverse

174

00:07:49,339 --> 00:07:46,740

backgrounds and have interests in a

175

00:07:56,659 --> 00:07:49,349

variety of subjects from forensics to

176  
00:07:58,010 --> 00:07:56,669  
mining engineering my future because I'm

177  
00:08:01,550 --> 00:07:58,020  
still undecided about what

178  
00:08:03,770 --> 00:08:01,560  
since this inception any AP has hosted a

179  
00:08:06,380 --> 00:08:03,780  
hundred ninety students the program's

180  
00:08:10,730 --> 00:08:06,390  
alumni have gone on to top colleges and

181  
00:08:12,260 --> 00:08:10,740  
to positions in NASA and Industry the

182  
00:08:14,330 --> 00:08:12,270  
whole exhibit together really tells the

183  
00:08:16,370 --> 00:08:14,340  
NASA story in an interesting way through

184  
00:08:17,690 --> 00:08:16,380  
the perspective of artists so it's very

185  
00:08:19,280 --> 00:08:17,700  
wonderful to sort of see them all

186  
00:08:21,200 --> 00:08:19,290  
together and it's rare that we have them

187  
00:08:23,150 --> 00:08:21,210  
all together like this the Smithsonian's

188  
00:08:26,420 --> 00:08:23,160

National Air and Space Museum in

189

00:08:29,120 --> 00:08:26,430

Washington is hosting NASA art 50 years

190

00:08:31,100 --> 00:08:29,130

of exploration more than 70 works

191

00:08:33,410 --> 00:08:31,110

ranging from the illustrative to the

192

00:08:35,690 --> 00:08:33,420

abstract present a different view of

193

00:08:37,790 --> 00:08:35,700

NASA than the one in history books or

194

00:08:40,550 --> 00:08:37,800

news accounts with art you really really

195

00:08:41,870 --> 00:08:40,560

see a different perspective and it's

196

00:08:43,520 --> 00:08:41,880

sort of processed through the artists

197

00:08:45,950 --> 00:08:43,530

imaginations a very interesting way

198

00:08:48,350 --> 00:08:45,960

featured in this exhibition are works by

199

00:08:51,200 --> 00:08:48,360

artists as diverse as Annie Leibovitz

200

00:08:53,990 --> 00:08:51,210

Andy Warhol and William Wegman I came

201  
00:08:57,650 --> 00:08:54,000  
over to NASA to make movies Jim Dean

202  
00:09:00,320 --> 00:08:57,660  
became NASA's first curator in 1962 when

203  
00:09:02,180 --> 00:09:00,330  
then Administrator James Webb initially

204  
00:09:04,550 --> 00:09:02,190  
invited artists to illustrate and

205  
00:09:06,320 --> 00:09:04,560  
interpret the agency's missions and

206  
00:09:07,610 --> 00:09:06,330  
projects when we looked at the

207  
00:09:09,560 --> 00:09:07,620  
photographs back then there was

208  
00:09:12,110 --> 00:09:09,570  
something missing you know all the facts

209  
00:09:14,150 --> 00:09:12,120  
were there but the excitement that you

210  
00:09:16,370 --> 00:09:14,160  
felt when you watched what was happening

211  
00:09:19,070 --> 00:09:16,380  
and you knew what we were trying to do I

212  
00:09:20,540 --> 00:09:19,080  
think I think that's where the artist

213  
00:09:22,850 --> 00:09:20,550

comes in where the artist can really

214

00:09:25,400 --> 00:09:22,860

fill that gap one of those invited was

215

00:09:27,860 --> 00:09:25,410

Norman Rockwell a stickler for detail

216

00:09:29,840 --> 00:09:27,870

Rockwell realized upon returning from

217

00:09:31,580 --> 00:09:29,850

his trip to Cape Canaveral that he

218

00:09:33,680 --> 00:09:31,590

needed a real spacesuit to

219

00:09:36,620 --> 00:09:33,690

satisfactorily paint astronaut John

220

00:09:38,990 --> 00:09:36,630

Young and Wood Dean please get one sent

221

00:09:42,110 --> 00:09:39,000

to his rural Massachusetts studio so I

222

00:09:44,060 --> 00:09:42,120

called Houston if I recalled the phone

223

00:09:47,390 --> 00:09:44,070

was slammed down in my ear after

224

00:09:49,730 --> 00:09:47,400

somebody said this stuff in that suit

225

00:09:53,120 --> 00:09:49,740

that's classified you can't have that

226

00:09:55,220 --> 00:09:53,130

but Dean persisted and soon by day the

227

00:09:57,890 --> 00:09:55,230

suit was being painted by Rockwell in

228

00:10:00,500 --> 00:09:57,900

his studio and by night it was being

229

00:10:02,180 --> 00:10:00,510

watched in a Stockbridge motel room by

230

00:10:04,280 --> 00:10:02,190

the NASA technicians sent along to

231

00:10:06,860 --> 00:10:04,290

garden Rocko was so pleased at getting

232

00:10:08,120 --> 00:10:06,870

the real thing to work with they put the

233

00:10:10,430 --> 00:10:08,130

technician in the

234

00:10:11,740 --> 00:10:10,440

the painting that would be Joe Schmidt

235

00:10:14,000 --> 00:10:11,750

there on the left

236

00:10:17,900 --> 00:10:14,010

Pew could be done at the Cape for a

237

00:10:20,630 --> 00:10:17,910

launch and see this array of cameras set

238

00:10:23,390 --> 00:10:20,640

up like an artillery range with these

239

00:10:25,430 --> 00:10:23,400

long lenses and then to see sitting on

240

00:10:28,820 --> 00:10:25,440

the ground an artist with a watercolor

241

00:10:30,560 --> 00:10:28,830

pad and his brushes and paint and doing

242

00:10:32,120 --> 00:10:30,570

that it was like somebody left over from

243

00:10:34,640 --> 00:10:32,130

another world that had been brought in

244

00:10:37,130 --> 00:10:34,650

to do this NASA art 50 years of

245

00:10:39,170 --> 00:10:37,140

exploration runs through October 9th at

246

00:10:42,770 --> 00:10:39,180

the Smithsonian's National Air and Space

247

00:10:45,680 --> 00:10:42,780

Museum in Washington and that's this