1
00:00:15,589 --> 00:00:12,200
this week at NASA after wishing the

2
00:00:18,109 --> 00:00:15,599
expedition 27 crew farewell expedition

3
00:00:20,689 --> 00:00:18,119
26 commander Scott Kelly boy use

4
00:00:23,240 --> 00:00:20,699
commander alexander kaleri and russian

5
00:00:24,920 --> 00:00:23,250
flight engineer oleg skripochka undocked

6
00:00:27,019 --> 00:00:24,930
their soyuz spacecraft from the

7
00:00:31,009 --> 00:00:27,029
International Space Station and turned

8
00:00:32,930 --> 00:00:31,019
toward home several hours later the trio

9
00:00:35,780 --> 00:00:32,940
landed safely on the steppes of

10
00:00:37,959 --> 00:00:35,790
Kazakhstan Kelly tulare and skripochka

11
00:00:40,520 --> 00:00:37,969
completed almost six months in space

12
00:00:43,459 --> 00:00:40,530
following their launch to the station in

13
00:00:46,190 --> 00:00:43,469

October 2010 when the hatch open is just

14
00:00:48,529 --> 00:00:46,200
quite refreshing to get that cold air

15
00:00:52,900 --> 00:00:48,539
and you know snow blown inside the

16
00:00:55,970 --> 00:00:52,910
capsule it was it was definitely a

17
00:00:58,279 --> 00:00:55,980
once-in-a-lifetime experience they'll be

18
00:01:00,860 --> 00:00:58,289
replaced on the complex by commander

19
00:01:04,310 --> 00:01:00,870
andrey borisenko and flight engineers

20
00:01:06,250 --> 00:01:04,320
alexander samokutyaev and ron garan who

21
00:01:09,289 --> 00:01:06,260
are scheduled to join dmitry kondratyev

22
00:01:12,230 --> 00:01:09,299
paolo nespoli and Cady Coleman on

23
00:01:14,630 --> 00:01:12,240
expedition 27 after their soyuz

24
00:01:21,289 --> 00:01:14,640
spacecraft launches next month from the

25
00:01:22,660 --> 00:01:21,299
baikonur cosmodrome in kazakhstan seeing

26
00:01:25,490 --> 00:01:22,670
right there shaking

27
00:01:27,380 --> 00:01:25,500
cell rings are happy for the past six

28
00:01:29,450 --> 00:01:27,390
and a half years the messenger

29
00:01:34,670 --> 00:01:29,460
spacecraft has been lapping the inner

30
00:01:36,710 --> 00:01:34,680
solar system now carrying a host of

31
00:01:39,020 --> 00:01:36,720
science instruments and fortified

32
00:01:41,810 --> 00:01:39,030
against the unrelenting heat of the Sun

33
00:01:44,240 --> 00:01:41,820
the spacecraft has arrived at its final

34
00:01:46,880 --> 00:01:44,250
destination in orbit around the

35
00:01:48,950 --> 00:01:46,890
innermost planet Mercury one of the

36
00:01:51,710 --> 00:01:48,960
mysteries now a 20-year old mystery that

37
00:01:53,870 --> 00:01:51,720
we hope to solve with messenger is is

38
00:01:56,180 --> 00:01:53,880

there ice on Mercury the planet closest

39
00:01:57,830 --> 00:01:56,190
to the Sun the planet with one of the

40
00:01:59,630 --> 00:01:57,840
hottest surface temperatures and the

41
00:02:02,890 --> 00:01:59,640
most extreme variation in temperature

42
00:02:05,780 --> 00:02:02,900
between day and night could ice be

43
00:02:08,780 --> 00:02:05,790
permanently deposited in cold storage at

44
00:02:11,210 --> 00:02:08,790
the North and South Pole stay tuned at

45
00:02:13,330 --> 00:02:11,220
the time of orbit insertion messenger

46
00:02:16,610 --> 00:02:13,340
for mercury surface space environment

47
00:02:19,670 --> 00:02:16,620
geochemistry and ranging was 28 million

48
00:02:22,670 --> 00:02:19,680
miles from the Sun and more than 96

49
00:02:25,699 --> 00:02:22,680
million miles from Earth Messenger has

50
00:02:29,030 --> 00:02:25,709
already completed one flyby of Earth two

51
00:02:31,280 --> 00:02:29,040
of Venus and three flybys of mercury now

52
00:02:33,440 --> 00:02:31,290
with each 12 day orbit of mercury it

53
00:02:35,720 --> 00:02:33,450
completes messenger will continue

54
00:02:37,970 --> 00:02:35,730
returning the first new spacecraft data

55
00:02:42,680 --> 00:02:37,980
of the planet since the mariner 10

56
00:02:44,479 --> 00:02:42,690
mission more than 30 years ago we are

57
00:02:46,520 --> 00:02:44,489
unveiling this website the women of NASA

58
00:02:49,820 --> 00:02:46,530
today we are so proud of the

59
00:02:51,880 --> 00:02:49,830
contributions of all women NASA unveiled

60
00:02:54,350 --> 00:02:51,890
its new women at NASA website

61
00:02:56,509 --> 00:02:54,360
highlighting the contributions women are

62
00:02:58,940 --> 00:02:56,519
making to the agency dad used to take me

63
00:03:02,240 --> 00:02:58,950

to the library every weekend and I would

64
00:03:03,949 --> 00:03:02,250
check out a book on science and math the

65
00:03:06,170 --> 00:03:03,959
rollout was part of a Women's History

66
00:03:08,990 --> 00:03:06,180
Month celebration held at NASA

67
00:03:11,449 --> 00:03:09,000
headquarters in Washington hosted by

68
00:03:13,550 --> 00:03:11,459
NASA deputy administrator lori garver

69
00:03:16,190 --> 00:03:13,560
the program included remarks from

70
00:03:18,199 --> 00:03:16,200
featured guests Valerie Jarrett senior

71
00:03:20,289 --> 00:03:18,209
presidential advisor and chair of the

72
00:03:22,910 --> 00:03:20,299
White House Council on women and girls

73
00:03:25,310 --> 00:03:22,920
astronaut Tracy Caldwell Dyson and

74
00:03:27,890 --> 00:03:25,320
Sabrina Thompson one of the women

75
00:03:30,170 --> 00:03:27,900
profiled on the new website the

76
00:03:30,809 --> 00:03:30,180
president called to the nation to have

77
00:03:33,179 --> 00:03:30,819
an app

78
00:03:34,589 --> 00:03:33,189
to get a hundred thousands new teachers

79
00:03:35,910 --> 00:03:34,599
in science and technology and

80
00:03:38,220 --> 00:03:35,920
engineering and math still have plenty

81
00:03:40,679 --> 00:03:38,230
of people out there ready to change it

82
00:03:47,099 --> 00:03:40,689
engaged and dedicated to this very

83
00:03:48,809 --> 00:03:47,109
important field a routine by the science

84
00:03:51,660 --> 00:03:48,819
cheerleaders entertained and educated

85
00:03:54,089 --> 00:03:51,670
the young all-girl audience of area

86
00:03:56,819 --> 00:03:54,099
school students the performers who are

87
00:03:58,920 --> 00:03:56,829
also scientists and engineers challenge

88
00:04:00,599 --> 00:03:58,930

stereotypes and encourage young women to

89
00:04:03,449 --> 00:04:00,609
pursue careers in science technology

90
00:04:07,440 --> 00:04:03,459
engineering and math a and you're going

91
00:04:10,500 --> 00:04:07,450
to fold it and interlock it inside side

92
00:04:12,689 --> 00:04:10,510
B audience members also took part in a

93
00:04:18,089 --> 00:04:12,699
demonstration of basic principles of

94
00:04:19,770 --> 00:04:18,099
flight I think this might be the first

95
00:04:23,939 --> 00:04:19,780
event you've ever been at we're tweeting

96
00:04:27,480 --> 00:04:23,949
is encouraged astronaut Doug Wheelock

97
00:04:29,969 --> 00:04:27,490
AKA Astro wheels hosted a tweetup at

98
00:04:31,950 --> 00:04:29,979
NASA headquarters this tweet up an

99
00:04:34,589 --> 00:04:31,960
informal meeting of the users are the

100
00:04:36,990 --> 00:04:34,599
social messaging medium Twitter allowed

101
00:04:39,689 --> 00:04:37,000
space enthusiasts to meet and greet we

102
00:04:42,060 --> 00:04:39,699
lock and other NASA personnel you know

103
00:04:43,560 --> 00:04:42,070
it's yeah it's cool you know where it

104
00:04:45,029 --> 00:04:43,570
get to wear a blue suit I get to fly in

105
00:04:48,749 --> 00:04:45,039
space and so what they're looking at me

106
00:04:50,730 --> 00:04:48,759
I know now that it's there looking at me

107
00:04:52,740 --> 00:04:50,740
saying okay the dream came true for you

108
00:04:56,339 --> 00:04:52,750
how about for me you know is there

109
00:04:58,770 --> 00:04:56,349
something in this in this passion for

110
00:05:01,980 --> 00:04:58,780
discovery and exploration their I can

111
00:05:04,260 --> 00:05:01,990
live my dream as well in June 2010 we

112
00:05:06,350 --> 00:05:04,270
locked began a stay of almost six months

113
00:05:09,089 --> 00:05:06,360

aboard the International Space Station

114
00:05:11,520 --> 00:05:09,099
assuming command of the complex command

115
00:05:15,149 --> 00:05:11,530
the expedition 25 crew on sep tember

116
00:05:17,040 --> 00:05:15,159
22nd while on orbit Wheelock often took

117
00:05:20,189 --> 00:05:17,050
pictures of Earth and sent them back

118
00:05:25,110 --> 00:05:20,199
home via Twitter Wheelock return from

119
00:05:27,570 --> 00:05:25,120
space on Thanksgiving Day 2010 and now

120
00:05:32,909 --> 00:05:27,580
centerpieces

121
00:05:35,070 --> 00:05:32,919
a six-week design and build challenge

122
00:05:37,260 --> 00:05:35,080
that had high school students across the

123
00:05:40,290 --> 00:05:37,270
world busy every day after school and on

124
00:05:42,809 --> 00:05:40,300
weekends is wrapping up the NASA nights

125
00:05:44,580 --> 00:05:42,819
a FIRST Robotics team from new horizons

126
00:05:47,399 --> 00:05:44,590
Regional Education Center in Hampton

127
00:05:49,619 --> 00:05:47,409
Virginia spent all of februari building

128
00:05:53,999 --> 00:05:49,629
and programming a robot to participate

129
00:05:55,980 --> 00:05:54,009
in the 2011 logo motion competition logo

130
00:05:58,679 --> 00:05:55,990
motion involves building a robot and

131
00:06:01,020 --> 00:05:58,689
mini bot that can move and climb as well

132
00:06:03,930 --> 00:06:01,030
as position inflatable tubes and symbols

133
00:06:05,820 --> 00:06:03,940
on pegs the team worked up to the last

134
00:06:08,010 --> 00:06:05,830
minute putting finishing touches on the

135
00:06:10,379 --> 00:06:08,020
robots mechanical arm and running tests

136
00:06:12,119 --> 00:06:10,389
of the mini bot for shipping the team's

137
00:06:14,040 --> 00:06:12,129
hard work has paid off and they are

138
00:06:17,129 --> 00:06:14,050

gearing up for two regional tournaments

139
00:06:19,260 --> 00:06:17,139
in March and April it's pretty intense

140
00:06:21,570 --> 00:06:19,270
we've been here as late as nine ten

141
00:06:23,339 --> 00:06:21,580
o'clock working on stuff a lot of us are

142
00:06:25,350 --> 00:06:23,349
here late let us come in every day

143
00:06:28,260 --> 00:06:25,360
especially saturday saturday is usually

144
00:06:33,130 --> 00:06:31,000
for some of the NASA nights this will be

145
00:06:35,380 --> 00:06:33,140
their first robotic competition it's

146
00:06:36,880 --> 00:06:35,390
pretty exciting I'm never done anything

147
00:06:38,530 --> 00:06:36,890
like this before so it's definitely

148
00:06:41,130 --> 00:06:38,540
something to look forward to I think

149
00:06:44,230 --> 00:06:41,140
it'll be fun just being there and like I

150
00:06:45,550 --> 00:06:44,240
can you can feel the energy even here

151
00:06:46,930 --> 00:06:45,560
like people are excited about it i think

152
00:06:48,970 --> 00:06:46,940
there with all the other teams and

153
00:06:50,980 --> 00:06:48,980
everything is just me really like just a

154
00:06:52,480 --> 00:06:50,990
lot of excitement and stuff and emotions

155
00:06:54,700 --> 00:06:52,490
and things like that with the majority

156
00:06:56,500 --> 00:06:54,710
of the work behind them the NASA nights

157
00:06:59,050 --> 00:06:56,510
are ready to take on the other first

158
00:07:00,460 --> 00:06:59,060
teams in robot battle usually we do a

159
00:07:02,800 --> 00:07:00,470
pretty good job everybody using pretty

160
00:07:04,420 --> 00:07:02,810
solid this year we're kind of moving

161
00:07:05,560 --> 00:07:04,430
toward a little bit of versatility but I

162
00:07:07,510 --> 00:07:05,570
think we still got a pretty good shot at

163
00:07:09,460 --> 00:07:07,520

it this was a little bit different from

164
00:07:16,030 --> 00:07:09,470
most years competitions but I think we

165
00:07:22,780 --> 00:07:19,480
and speaking of robots NASA's Robonaut 2

166
00:07:24,400 --> 00:07:22,790
or r2 for short was a big hit at the

167
00:07:27,910 --> 00:07:24,410
Smithsonian National Air and Space

168
00:07:32,050 --> 00:07:27,920
Museum in Washington school it was

169
00:07:35,080 --> 00:07:32,060
excited inside the movie beyond Earth

170
00:07:36,880 --> 00:07:35,090
gallery the human-like robot whose twin

171
00:07:39,400 --> 00:07:36,890
is now a member of the international

172
00:07:41,320 --> 00:07:39,410
space station crew demonstrated its

173
00:07:44,110 --> 00:07:41,330
strength human-like dexterity and

174
00:07:50,020 --> 00:07:44,120
applicability in working safely and in

175
00:07:52,540 --> 00:07:50,030
close proximity to humans are two is

176
00:07:54,910 --> 00:07:52,550
just one example of technologies being

177
00:07:56,530 --> 00:07:54,920
developed by the agency to meet the

178
00:07:59,110 --> 00:07:56,540
challenges of extending the human

179
00:08:00,790 --> 00:07:59,120
presence into space our goal is to

180
00:08:02,860 --> 00:08:00,800
overtime to show that it is capable of

181
00:08:04,960 --> 00:08:02,870
doing many tasks and then let it become

182
00:08:07,930 --> 00:08:04,970
a system that would operationally help

183
00:08:10,180 --> 00:08:07,940
the crew on a regular basis r2 also made

184
00:08:12,490 --> 00:08:10,190
an appearance for NASA tech day on the

185
00:08:14,620 --> 00:08:12,500
hill members of Congress and their

186
00:08:18,730 --> 00:08:14,630
staffers watched our to get put through

187
00:08:20,890 --> 00:08:18,740
his paces it is a while NASA leadership

188
00:08:23,110 --> 00:08:20,900

spoke of the importance of improving the

189
00:08:25,660 --> 00:08:23,120
nation's technological research and

190
00:08:27,880 --> 00:08:25,670
capability when I think about NASA's

191
00:08:31,210 --> 00:08:27,890
future in space and in aeronautics when

192
00:08:34,570 --> 00:08:31,220
I think about the future of this country

193
00:08:36,610 --> 00:08:34,580
I can't help but realize that the pace

194
00:08:38,530 --> 00:08:36,620
of our technological enervate

195
00:08:42,130 --> 00:08:38,540
innovations is only going to increase

196
00:08:45,280 --> 00:08:42,140
with time it's a technological world and

197
00:08:47,650 --> 00:08:45,290
for the u.s. to remain a technological

198
00:08:52,660 --> 00:08:47,660
leader we have to make technology

199
00:08:55,900 --> 00:08:52,670
investments NASA celebrates two

200
00:08:59,590 --> 00:08:55,910
anniversaries this week 46 years ago on

201
00:09:01,780 --> 00:08:59,600
March 23rd 1965 the first manned Gemini

202
00:09:05,470 --> 00:09:01,790
mission was launched from Cape Canaveral

203
00:09:07,840 --> 00:09:05,480
complex 19 piloted by astronauts of

204
00:09:10,030 --> 00:09:07,850
Virgil Gus Grissom and John Young the

205
00:09:12,130 --> 00:09:10,040
three orbit geminii 3 mission tested

206
00:09:15,160 --> 00:09:12,140
spacecraft and launch vehicle systems

207
00:09:17,080 --> 00:09:15,170
for future long-duration flights how the

208
00:09:19,290 --> 00:09:17,090
capsule could be maneuvered in orbit

209
00:09:22,300 --> 00:09:19,300
then controlled for re-entry and landing

210
00:09:24,960 --> 00:09:22,310
the Gemini program helps set the stage

211
00:09:29,429 --> 00:09:24,970
for NASA's future moon landings

212
00:09:31,619 --> 00:09:29,439
and 15 years ago on March 22nd 1996

213
00:09:35,790 --> 00:09:31,629

space shuttle atlantis launched from the

214
00:09:37,710 --> 00:09:35,800
kennedy space center to begin sts 76 it

215
00:09:39,990 --> 00:09:37,720
was the first flight of the Spacehab

216
00:09:42,210 --> 00:09:40,000
pressurized module to support shuttle

217
00:09:44,369 --> 00:09:42,220
Mir dockings and the third link up

218
00:09:47,069 --> 00:09:44,379
between the u.s. spacecraft and the

219
00:09:48,480 --> 00:09:47,079
Russian space station Atlantis also

220
00:09:51,059 --> 00:09:48,490
delivered veteran astronaut Shannon

221
00:09:53,879 --> 00:09:51,069
lucid to mere to be the first American

222
00:09:56,850 --> 00:09:53,889
woman to live on station and kick off a

223
00:10:00,389 --> 00:09:56,860
continuous US presence in space for the

224
00:10:02,790 --> 00:10:00,399
next two years the STS 76 crew was

225
00:10:05,129 --> 00:10:02,800
commanded by kevin chilton richard

226
00:10:07,590 --> 00:10:05,139
Searfoss was its pilot mission

227
00:10:12,540 --> 00:10:07,600
specialists were Linda Godwin Michael

228
00:10:14,579 --> 00:10:12,550
Clifford and Ronald seca finally NASA

229
00:10:17,699 --> 00:10:14,589
television has reached an Internet

230
00:10:20,400 --> 00:10:17,709
milestone our YouTube channel now has

231
00:10:23,069 --> 00:10:20,410
more than five million views with more

232
00:10:25,619 --> 00:10:23,079
than 19 million upload views from

233
00:10:29,819 --> 00:10:25,629
everyone at NASA TV thanks for watching