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
00:00:20,660 --> 00:00:18,119
26 commander Scott Kelly boy use

4
00:00:23,240 --> 00:00:20,670
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
00:01:22,890 --> 00:01:14,640
spacecraft launches next month from the

25
00:01:27,400 --> 00:01:25,480
celebrate their happy for the past six

26
00:01:29,440 --> 00:01:27,410
and a half years the messenger

27
00:01:34,690 --> 00:01:29,450
spacecraft has been lapping the inner

28
00:01:36,700 --> 00:01:34,700
solar system now carrying a host of

29
00:01:39,010 --> 00:01:36,710
science instruments and fortified

30
00:01:41,800 --> 00:01:39,020
against the unrelenting heat of the Sun

31
00:01:44,260 --> 00:01:41,810
the spacecraft has arrived at its final

32
00:01:46,870 --> 00:01:44,270
destination in orbit around the

33
00:01:48,940 --> 00:01:46,880
innermost planet Mercury one of the

34
00:01:51,700 --> 00:01:48,950
mysteries now a 20-year old mystery that

35
00:01:53,890 --> 00:01:51,710
we hope to solve with messenger is is

36
00:01:56,170 --> 00:01:53,900
there ice on Mercury the planet closest

37
00:01:58,060 --> 00:01:56,180
to the Sun the planet with one of the

38
00:01:59,620 --> 00:01:58,070

hottest surface temperatures and the

39
00:02:02,880 --> 00:01:59,630
most extreme variation in temperature

40
00:02:05,770 --> 00:02:02,890
between day and night could ice be

41
00:02:08,770 --> 00:02:05,780
permanently deposited in cold storage at

42
00:02:11,230 --> 00:02:08,780
the North and South Pole stay tuned at

43
00:02:13,320 --> 00:02:11,240
the time of orbit insertion messenger

44
00:02:16,600 --> 00:02:13,330
for mercury surface space environment

45
00:02:19,660 --> 00:02:16,610
geochemistry and ranging was 28 million

46
00:02:22,660 --> 00:02:19,670
miles from the Sun and more than 96

47
00:02:25,720 --> 00:02:22,670
million miles from Earth Messenger has

48
00:02:29,020 --> 00:02:25,730
already completed one flyby of Earth two

49
00:02:31,300 --> 00:02:29,030
of Venus and three flybys of mercury now

50
00:02:33,430 --> 00:02:31,310
with each 12 day orbit of mercury it

51
00:02:35,710 --> 00:02:33,440
completes messenger will continue

52
00:02:37,990 --> 00:02:35,720
returning the first new spacecraft data

53
00:02:42,670 --> 00:02:38,000
of the planet since the mariner 10

54
00:02:44,500 --> 00:02:42,680
mission more than 30 years ago we are

55
00:02:46,510 --> 00:02:44,510
unveiling this website the women of NASA

56
00:02:49,840 --> 00:02:46,520
today we are so proud of the

57
00:02:51,900 --> 00:02:49,850
contributions of all women NASA unveiled

58
00:02:54,340 --> 00:02:51,910
its new women at NASA website

59
00:02:56,500 --> 00:02:54,350
highlighting the contributions women are

60
00:02:58,960 --> 00:02:56,510
making to the agency dad used to take me

61
00:03:02,229 --> 00:02:58,970
to the library every weekend and I would

62
00:03:03,970 --> 00:03:02,239
check out a book on science and math the

63
00:03:06,190 --> 00:03:03,980

rollout was part of a Women's History

64
00:03:08,979 --> 00:03:06,200
Month celebration held at NASA

65
00:03:11,440 --> 00:03:08,989
headquarters in Washington hosted by

66
00:03:14,020 --> 00:03:11,450
NASA deputy administrator lori garver

67
00:03:16,180 --> 00:03:14,030
the program included remarks from future

68
00:03:18,190 --> 00:03:16,190
guests Valerie Jarrett senior

69
00:03:20,310 --> 00:03:18,200
presidential advisor and chair of the

70
00:03:22,900 --> 00:03:20,320
White House Council on women and girls

71
00:03:25,300 --> 00:03:22,910
astronaut Tracy Caldwell Dyson and

72
00:03:27,880 --> 00:03:25,310
Sabrina Thompson one of the women

73
00:03:30,190 --> 00:03:27,890
profiled on the new website the

74
00:03:32,740 --> 00:03:30,200
president called for the nation to have

75
00:03:34,569 --> 00:03:32,750
an effort to get a hundred thousand new

76
00:03:35,320 --> 00:03:34,579
teachers and science and technology and

77
00:03:36,490 --> 00:03:35,330
engineering and math

78
00:03:39,640 --> 00:03:36,500
so you'll have plenty of people out

79
00:03:43,620 --> 00:03:39,650
there ready to change it engaged and

80
00:03:49,690 --> 00:03:47,740
a routine by the science cheerleaders

81
00:03:51,970 --> 00:03:49,700
entertained and educated the young

82
00:03:54,280 --> 00:03:51,980
all-girl audience of area school

83
00:03:56,830 --> 00:03:54,290
students the performers who are also

84
00:03:58,900 --> 00:03:56,840
scientists and engineers challenge

85
00:04:00,610 --> 00:03:58,910
stereotypes and encourage young women to

86
00:04:03,460 --> 00:04:00,620
pursue careers in science technology

87
00:04:07,420 --> 00:04:03,470
engineering and math a and you're going

88
00:04:10,510 --> 00:04:07,430

to fold it and interlock it inside side

89
00:04:12,730 --> 00:04:10,520
B audience members also took part in a

90
00:04:18,070 --> 00:04:12,740
demonstration of basic principles of

91
00:04:19,780 --> 00:04:18,080
flight I think this might be the first

92
00:04:23,950 --> 00:04:19,790
event you've ever been at we're tweeting

93
00:04:27,490 --> 00:04:23,960
is encouraged astronaut Doug Wheelock

94
00:04:29,980 --> 00:04:27,500
AKA Astro wheels posted a tweet up at

95
00:04:31,960 --> 00:04:29,990
NASA headquarters this tweet up an

96
00:04:34,570 --> 00:04:31,970
informal meeting of the users are the

97
00:04:37,000 --> 00:04:34,580
social messaging medium Twitter allowed

98
00:04:39,670 --> 00:04:37,010
space enthusiasts to meet and greet we

99
00:04:42,070 --> 00:04:39,680
lock and other NASA personnel you know

100
00:04:43,570 --> 00:04:42,080
it's yeah it's cool you know where it

101
00:04:45,010 --> 00:04:43,580
get to wear a blue suit I get to fly in

102
00:04:48,730 --> 00:04:45,020
space and so what they're looking at me

103
00:04:50,740 --> 00:04:48,740
I know now that it's there looking at me

104
00:04:52,720 --> 00:04:50,750
saying okay the dream came true for you

105
00:04:56,350 --> 00:04:52,730
how about for me you know is there

106
00:04:58,780 --> 00:04:56,360
something in this in this passion for

107
00:05:01,450 --> 00:04:58,790
discovery and exploration their I can

108
00:05:04,000 --> 00:05:01,460
live my dream as well in June 2010

109
00:05:05,620 --> 00:05:04,010
wheelock began a stay of almost six

110
00:05:08,500 --> 00:05:05,630
months aboard the International Space

111
00:05:11,530 --> 00:05:08,510
Station assuming command of the complex

112
00:05:15,159 --> 00:05:11,540
and the expedition 25 crew on sep tember

113
00:05:17,050 --> 00:05:15,169

22nd while on orbit Wheelock often took

114
00:05:20,200 --> 00:05:17,060
pictures of Earth and sent them back

115
00:05:25,120 --> 00:05:20,210
home via Twitter Wheelock return from

116
00:05:27,690 --> 00:05:25,130
space on Thanksgiving Day 2010 and now

117
00:05:32,910 --> 00:05:27,700
centerpieces

118
00:05:35,070 --> 00:05:32,920
a six-week design and build challenge

119
00:05:37,260 --> 00:05:35,080
that had high school students across the

120
00:05:40,320 --> 00:05:37,270
world busy every day after school and on

121
00:05:42,810 --> 00:05:40,330
weekends is wrapping up the NASA nights

122
00:05:44,580 --> 00:05:42,820
a FIRST Robotics team from new horizons

123
00:05:47,400 --> 00:05:44,590
Regional Education Center in Hampton

124
00:05:49,620 --> 00:05:47,410
Virginia spent all of februari building

125
00:05:54,000 --> 00:05:49,630
and programming a robot to participate

126
00:05:55,980 --> 00:05:54,010
in the 2011 logo motion competition logo

127
00:05:58,290 --> 00:05:55,990
motion involves building a robot and

128
00:06:00,660 --> 00:05:58,300
mini bot that could move and climb as

129
00:06:03,600 --> 00:06:00,670
well as position inflatable tubes and

130
00:06:04,980 --> 00:06:03,610
symbols on pegs the team worked up to

131
00:06:07,320 --> 00:06:04,990
the last minute putting finishing

132
00:06:09,060 --> 00:06:07,330
touches on the robots mechanical arm and

133
00:06:11,400 --> 00:06:09,070
running tests of the mini bot for

134
00:06:13,020 --> 00:06:11,410
shipping the team's hard work has paid

135
00:06:14,870 --> 00:06:13,030
off and they are gearing up for two

136
00:06:18,300 --> 00:06:14,880
regional tournaments in March and April

137
00:06:19,830 --> 00:06:18,310
it's pretty intense we've been here as

138
00:06:22,410 --> 00:06:19,840

late as nine ten o'clock working on

139
00:06:24,570 --> 00:06:22,420
stuff a lot of us are here late let us

140
00:06:28,250 --> 00:06:24,580
come in every day express the saturdays

141
00:06:33,120 --> 00:06:31,020
for some of the NASA nights this will be

142
00:06:35,370 --> 00:06:33,130
their first robotic competition it's

143
00:06:36,900 --> 00:06:35,380
pretty exciting I'm never done anything

144
00:06:38,550 --> 00:06:36,910
like this before so it's definitely

145
00:06:41,120 --> 00:06:38,560
something to look forward to I think

146
00:06:44,220 --> 00:06:41,130
will be fun just being there and like I

147
00:06:45,540 --> 00:06:44,230
can I even feel the energy even here

148
00:06:46,920 --> 00:06:45,550
like people are excited about I think

149
00:06:48,960 --> 00:06:46,930
there with all the other teams and

150
00:06:51,000 --> 00:06:48,970
everything is just me really like just a

151
00:06:52,470 --> 00:06:51,010
lot of excitement and stuff and emotions

152
00:06:54,690 --> 00:06:52,480
and things like that with the majority

153
00:06:56,490 --> 00:06:54,700
of the work behind them the NASA nights

154
00:06:59,040 --> 00:06:56,500
are ready to take on the other first

155
00:07:00,450 --> 00:06:59,050
teams in robot battle usually we do a

156
00:07:02,790 --> 00:07:00,460
pretty good job everybody using pretty

157
00:07:04,410 --> 00:07:02,800
solid this year we're kind of moving

158
00:07:05,550 --> 00:07:04,420
toward a little bit of versatility but I

159
00:07:07,500 --> 00:07:05,560
think we still got a pretty good shot at

160
00:07:09,450 --> 00:07:07,510
it this was a little bit different from

161
00:07:16,070 --> 00:07:09,460
most years competitions but I think we

162
00:07:22,760 --> 00:07:19,460
and speaking of robots NASA's Robonaut 2

163
00:07:24,409 --> 00:07:22,770

or r2 for short was a big hit at the

164
00:07:27,920 --> 00:07:24,419
Smithsonian National Air and Space

165
00:07:32,839 --> 00:07:27,930
Museum in Washington school it was

166
00:07:35,480 --> 00:07:32,849
excited inside the moving beyond gallery

167
00:07:37,129 --> 00:07:35,490
the human-like robot whose twin is now a

168
00:07:39,740 --> 00:07:37,139
member of the international space

169
00:07:42,080 --> 00:07:39,750
station crew demonstrated its strength

170
00:07:45,050 --> 00:07:42,090
human-like dexterity and applicability

171
00:07:51,439 --> 00:07:45,060
in working safely and in close proximity

172
00:07:53,330 --> 00:07:51,449
to humans are two is just one example of

173
00:07:55,520 --> 00:07:53,340
technologies being developed by the

174
00:07:58,129 --> 00:07:55,530
agency to meet the challenges of

175
00:08:00,050 --> 00:07:58,139
extending the human presence into space

176
00:08:01,879 --> 00:08:00,060
our goal is to over time to show that

177
00:08:03,730 --> 00:08:01,889
it's capable of doing many tasks and

178
00:08:05,659 --> 00:08:03,740
then let it become a system that

179
00:08:08,779 --> 00:08:05,669
operationally help the crew on a regular

180
00:08:11,719 --> 00:08:08,789
basis r2 also made an appearance for

181
00:08:13,730 --> 00:08:11,729
NASA tech day on the hill members of

182
00:08:16,749 --> 00:08:13,740
Congress and their staffers watched our

183
00:08:19,369 --> 00:08:16,759
to get put through his paces it is a

184
00:08:21,189 --> 00:08:19,379
while NASA leadership spoke of the

185
00:08:23,869 --> 00:08:21,199
importance of improving the nation's

186
00:08:26,209 --> 00:08:23,879
technological research and capability

187
00:08:28,369 --> 00:08:26,219
when I think about NASA's future in

188
00:08:32,870 --> 00:08:28,379

space and Aeronautics when I think about

189
00:08:35,360 --> 00:08:32,880
the future of this country I can't help

190
00:08:37,699 --> 00:08:35,370
but realize that the pace of our

191
00:08:40,819 --> 00:08:37,709
technological enervate innovations is

192
00:08:43,579 --> 00:08:40,829
only going to increase with time it's a

193
00:08:46,610 --> 00:08:43,589
technological world and for the u.s. to

194
00:08:51,710 --> 00:08:46,620
remain a technological leader we have to

195
00:08:53,980 --> 00:08:51,720
make technology investments NASA

196
00:08:58,670 --> 00:08:53,990
celebrates two anniversaries this week

197
00:09:00,949 --> 00:08:58,680
46 years ago on March 23rd 1965 the

198
00:09:04,460 --> 00:09:00,959
first manned Gemini mission was launched

199
00:09:06,769 --> 00:09:04,470
from Cape Canaveral complex 19 piloted

200
00:09:09,139 --> 00:09:06,779
by astronauts of Virgil Gus Grissom and

201
00:09:10,970 --> 00:09:09,149
John Young the three orbit jiminy 3

202
00:09:13,400 --> 00:09:10,980
mission tested spacecraft and launch

203
00:09:16,370 --> 00:09:13,410
vehicle systems for future long-duration

204
00:09:18,439 --> 00:09:16,380
flights how the capsule could be renew

205
00:09:21,230 --> 00:09:18,449
vered in orbit then controlled for

206
00:09:23,329 --> 00:09:21,240
re-entry and landing the gemiini program

207
00:09:24,370 --> 00:09:23,339
helped set the stage for NASA's future

208
00:09:29,410 --> 00:09:24,380
moon landing

209
00:09:31,630 --> 00:09:29,420
and 15 years ago on March 22nd 1996

210
00:09:35,770 --> 00:09:31,640
space shuttle atlantis launched from the

211
00:09:37,720 --> 00:09:35,780
kennedy space center to begin sts 76 it

212
00:09:40,000 --> 00:09:37,730
was the first flight of the Spacehab

213
00:09:42,220 --> 00:09:40,010

pressurized module to support shuttle

214
00:09:44,380 --> 00:09:42,230
Mir dockings and the third link-up

215
00:09:47,080 --> 00:09:44,390
between the u.s. spacecraft and the

216
00:09:48,490 --> 00:09:47,090
Russian space station Atlantis also

217
00:09:51,040 --> 00:09:48,500
delivered veteran astronaut Shannon

218
00:09:53,890 --> 00:09:51,050
lucid to mere to be the first American

219
00:09:56,830 --> 00:09:53,900
woman to live on station and kick off a

220
00:10:00,400 --> 00:09:56,840
continuous US presence in space for the

221
00:10:02,800 --> 00:10:00,410
next two years the STS 76 crew was

222
00:10:05,140 --> 00:10:02,810
commanded by kevin chilton richard

223
00:10:07,600 --> 00:10:05,150
Searfoss was its pilot mission

224
00:10:12,520 --> 00:10:07,610
specialists were Linda Godwin Michael

225
00:10:14,590 --> 00:10:12,530
Clifford and Ronald Sega finally NASA

226
00:10:17,680 --> 00:10:14,600
television has reached an Internet

227
00:10:20,410 --> 00:10:17,690
milestone our YouTube channel now has

228
00:10:23,050 --> 00:10:20,420
more than five million views with more

229
00:10:25,630 --> 00:10:23,060
than 19 million upload views from

230
00:10:29,830 --> 00:10:25,640
everyone at NASA TV thanks for watching

231
00:10:34,450 --> 00:10:29,840
as that's this week @nasa for more on