1
00:00:12,169 --> 00:00:11,120
this week at NASA we are now five

2
00:00:14,570 --> 00:00:12,179
minutes away from the targeted

3
00:00:16,640 --> 00:00:14,580
splashdown time of Dragon the mission of

4
00:00:18,500 --> 00:00:16,650
the first commercial spacecraft to visit

5
00:00:20,810 --> 00:00:18,510
the International Space Station came to

6
00:00:23,570 --> 00:00:20,820
a successful conclusion with a return to

7
00:00:25,580 --> 00:00:23,580
Earth of the SpaceX Dragon capsule which

8
00:00:28,490 --> 00:00:25,590
splashed down in the Pacific Ocean off

9
00:00:30,589 --> 00:00:28,500
the coast of Baja California that capped

10
00:00:32,749 --> 00:00:30,599
up a nine-day trip during which dragon

11
00:00:35,569 --> 00:00:32,759
demonstrated its ability to maneuver in

12
00:00:37,819 --> 00:00:35,579
orbit safely approach the space station

13
00:00:39,619 --> 00:00:37,829

and be grappled and birth to the

14
00:00:41,810 --> 00:00:39,629
orbiting laboratory we look forward to

15
00:00:43,670 --> 00:00:41,820
doing lots of blood small missions in

16
00:00:46,819 --> 00:00:43,680
the future and continuing to upgrade the

17
00:00:48,590 --> 00:00:46,829
technology and push the the frontier of

18
00:00:50,260 --> 00:00:48,600
space transportation we've been waiting

19
00:00:54,250 --> 00:00:50,270
for this day and

20
00:00:57,970 --> 00:00:54,260
it is certainly is a tremendous day so

21
00:01:01,200 --> 00:00:57,980
we're looking forward now to to routine

22
00:01:03,299 --> 00:01:01,210
now regular cargo services from you

23
00:01:06,370 --> 00:01:03,309
congratulations on it just an amazing

24
00:01:08,350 --> 00:01:06,380
amazing mission the SpaceX demonstration

25
00:01:09,400 --> 00:01:08,360
flight to the ISS is part of NASA's

26
00:01:12,570 --> 00:01:09,410
commercial orbital transportation

27
00:01:14,920 --> 00:01:12,580
services or cots program which provides

28
00:01:18,880 --> 00:01:14,930
investments to stimulate the commercial

29
00:01:21,100 --> 00:01:18,890
space industry in America NASA

30
00:01:23,020 --> 00:01:21,110
Administrator Charles Bolden was updated

31
00:01:25,780 --> 00:01:23,030
on the development of orbital sciences

32
00:01:27,160 --> 00:01:25,790
corporations Cygnus cargo carrier during

33
00:01:29,920 --> 00:01:27,170
a recent visit to the Wallops Flight

34
00:01:31,960 --> 00:01:29,930
Facility Cygnus will carry supplies to

35
00:01:33,969 --> 00:01:31,970
the International Space Station under

36
00:01:36,969 --> 00:01:33,979
NASA's cargo resupply services contract

37
00:01:38,530 --> 00:01:36,979
with orbital the first demonstration

38
00:01:40,749 --> 00:01:38,540

flight of the sickness is scheduled to

39
00:01:45,280 --> 00:01:40,759
launch from Wallops this fall aboard

40
00:01:47,170 --> 00:01:45,290
orbitals Antares rocket a new milestone

41
00:01:48,790 --> 00:01:47,180
has been reached for another commercial

42
00:01:51,760 --> 00:01:48,800
spacecraft designed to transport

43
00:01:53,410 --> 00:01:51,770
astronauts to low-earth orbit operations

44
00:01:55,949 --> 00:01:53,420
software for the crew space

45
00:01:58,180 --> 00:01:55,959
transportation or cst-100 spacecraft

46
00:02:00,600 --> 00:01:58,190
under development by boeing has

47
00:02:03,100 --> 00:02:00,610
undergone its preliminary design review

48
00:02:05,020 --> 00:02:03,110
the software is essential to all

49
00:02:07,840 --> 00:02:05,030
operational aspects of the spacecraft

50
00:02:10,860 --> 00:02:07,850
including its launch orbital maneuvering

51
00:02:13,750 --> 00:02:10,870
docking and landing the cst-100

52
00:02:15,520 --> 00:02:13,760
capsule-shaped reusable spacecraft will

53
00:02:18,100 --> 00:02:15,530
carry up to seven people or a

54
00:02:19,510 --> 00:02:18,110
combination of people and cargo to the

55
00:02:22,809 --> 00:02:19,520
International Space Station and

56
00:02:25,360 --> 00:02:22,819
elsewhere in low-earth orbit the Atlas 5

57
00:02:29,860 --> 00:02:25,370
rocket will propel the cst-100 on its

58
00:02:31,900 --> 00:02:29,870
initial test flights and the Sierra

59
00:02:34,360 --> 00:02:31,910
Nevada corporation's drain Chaser

60
00:02:37,270 --> 00:02:34,370
spacecraft has passed a new milestone of

61
00:02:39,580 --> 00:02:37,280
its own a test called a captive carry

62
00:02:41,410 --> 00:02:39,590
was performed successfully at Rocky

63
00:02:44,140 --> 00:02:41,420

Mountain Metropolitan Airport in

64
00:02:46,390 --> 00:02:44,150
Colorado this test used to validate

65
00:02:48,130 --> 00:02:46,400
ground in flight operations and flight

66
00:02:51,010 --> 00:02:48,140
characteristics of the dream chaser

67
00:02:53,710 --> 00:02:51,020
employed an engineering test article and

68
00:02:55,809 --> 00:02:53,720
a skycrane helicopter more validation

69
00:02:59,570 --> 00:02:55,819
testing is planned before the vehicle

70
00:03:04,590 --> 00:03:02,120
astra nasa's space launch system

71
00:03:06,620 --> 00:03:04,600
engineers can now begin developing the

72
00:03:09,270 --> 00:03:06,630
heavy-lift vehicles flight software

73
00:03:10,530 --> 00:03:09,280
computers with testbed software have

74
00:03:13,290 --> 00:03:10,540
been delivered to the Marshall Space

75
00:03:15,750 --> 00:03:13,300
Flight Center by Boeing the SLS will

76
00:03:20,030 --> 00:03:15,760
propel NASA's Orion spacecraft to

77
00:03:25,410 --> 00:03:22,710
NASA's nuclear spectroscopic telescope

78
00:03:27,300 --> 00:03:25,420
array or NuStar mission scheduled to

79
00:03:29,640 --> 00:03:27,310
launch no earlier than june thirteenth

80
00:03:32,130 --> 00:03:29,650
from Kwajalein Atoll in the marshall

81
00:03:34,230 --> 00:03:32,140
islands will use x-ray vision to hunt

82
00:03:35,760 --> 00:03:34,240
for hidden black holes new star will be

83
00:03:38,730 --> 00:03:35,770
opening up a new window on the universe

84
00:03:40,500 --> 00:03:38,740
and although we are going into this

85
00:03:42,600 --> 00:03:40,510
mission with many scientific questions

86
00:03:45,180 --> 00:03:42,610
that we know new so provide the data

87
00:03:47,520 --> 00:03:45,190
that will give us the answers like all

88
00:03:49,350 --> 00:03:47,530

of our NASA missions we're going to find

89
00:03:51,150 --> 00:03:49,360
unexpected things out there that will

90
00:03:52,830 --> 00:03:51,160
lead us to questions and answers that we

91
00:03:54,990 --> 00:03:52,840
aren't even anticipating at this time

92
00:03:56,120 --> 00:03:55,000
the new star observatory will be

93
00:03:58,830 --> 00:03:56,130
launched aboard Orbital Sciences

94
00:04:01,290 --> 00:03:58,840
corporations Pegasus rocket from the

95
00:04:04,259 --> 00:04:01,300
belly of the company's l-1011 stargazer

96
00:04:06,060 --> 00:04:04,269
aircraft new star is a small Explorer

97
00:04:09,270 --> 00:04:06,070
mission led by the California Institute

98
00:04:13,259 --> 00:04:09,280
of Technology in Pasadena and managed by

99
00:04:15,240 --> 00:04:13,269
NASA's Jet Propulsion Laboratory we are

100
00:04:16,890 --> 00:04:15,250
here today to announce that for the very

101
00:04:19,500 --> 00:04:16,900
first time we've been able to measure

102
00:04:21,330 --> 00:04:19,510
the sideways motion in astronomy also

103
00:04:23,370 --> 00:04:21,340
known as proper motion of the Andromeda

104
00:04:25,590 --> 00:04:23,380
galaxy scientists using the Hubble Space

105
00:04:28,290 --> 00:04:25,600
Telescope are predicting the next major

106
00:04:31,560 --> 00:04:28,300
cosmic event expected to affect our

107
00:04:33,450 --> 00:04:31,570
Milky Way galaxy Sun and solar system we

108
00:04:35,370 --> 00:04:33,460
finds that too within the precision of

109
00:04:37,260 --> 00:04:35,380
our measurements the Andromeda galaxy is

110
00:04:39,420 --> 00:04:37,270
heading straight in our direction what

111
00:04:42,090 --> 00:04:39,430
this means is that the galaxies will

112
00:04:43,680 --> 00:04:42,100
collide scientists say the Titanic

113
00:04:46,710 --> 00:04:43,690

collision between the Milky Way and

114
00:04:48,750 --> 00:04:46,720
Andromeda galaxy's is expected to occur

115
00:04:50,670 --> 00:04:48,760
about four billion years from now and

116
00:04:52,650 --> 00:04:50,680
will ultimately result in the two

117
00:04:54,659 --> 00:04:52,660
galaxies merging to form a single

118
00:04:57,030 --> 00:04:54,669
elliptical galaxy even though it's

119
00:04:59,219 --> 00:04:57,040
billions of years in the future it gives

120
00:05:01,890 --> 00:04:59,229
us some portrait of what the night sky

121
00:05:04,230 --> 00:05:01,900
will look like a really amazing event

122
00:05:05,950 --> 00:05:04,240
for whatever you know life exists on

123
00:05:08,200 --> 00:05:05,960
earth at that time of

124
00:05:09,969 --> 00:05:08,210
you know things that will transpire in

125
00:05:11,350 --> 00:05:09,979
the cosmos in the future and I think

126
00:05:15,670 --> 00:05:11,360
that's a very exciting thing for Hubble

127
00:05:17,950 --> 00:05:15,680
to be doing I believe we have a very

128
00:05:20,650 --> 00:05:17,960
very bright future and you all are

129
00:05:22,450 --> 00:05:20,660
extremely critical to our success in

130
00:05:24,700 --> 00:05:22,460
leading the way in that future NASA

131
00:05:26,529 --> 00:05:24,710
deputy administrator lori garver served

132
00:05:28,469 --> 00:05:26,539
as keynote speaker at a day-long

133
00:05:31,120 --> 00:05:28,479
conference outside Washington DC

134
00:05:34,360 --> 00:05:31,130
sponsored by women in aerospace the

135
00:05:36,550 --> 00:05:34,370
theme leading the way focused discussion

136
00:05:39,189 --> 00:05:36,560
on topics of special interest to women

137
00:05:42,010 --> 00:05:39,199
and those who hire mentor and promote

138
00:05:44,890 --> 00:05:42,020

them in aerospace worldwide NASA is one

139
00:05:49,029 --> 00:05:44,900
of the top federal employers of stem

140
00:05:51,550 --> 00:05:49,039
graduates we have just over twenty

141
00:05:53,770 --> 00:05:51,560
percent of our stem employees are women

142
00:05:58,060 --> 00:05:53,780
I forget are we twenty percent of the

143
00:06:00,249 --> 00:05:58,070
population ladies remember when we

144
00:06:02,620 --> 00:06:00,259
invest in the space program we are not

145
00:06:04,210 --> 00:06:02,630
putting money into space why we spend

146
00:06:06,309 --> 00:06:04,220
that money right here on earth NASA

147
00:06:08,740 --> 00:06:06,319
Chief Technologist Mason Peck joined

148
00:06:10,870 --> 00:06:08,750
agency and Ohio officials at the

149
00:06:13,149 --> 00:06:10,880
manufacturing advocacy and growth

150
00:06:15,939 --> 00:06:13,159
network or magnet headquarters in

151
00:06:18,879 --> 00:06:15,949
Cleveland they are Peck name nine small

152
00:06:21,100 --> 00:06:18,889
and medium-sized Ohio manufacturers will

153
00:06:23,230 --> 00:06:21,110
receive NASA assistance to solve

154
00:06:25,959 --> 00:06:23,240
technical problems with their new or

155
00:06:27,909 --> 00:06:25,969
existing products those joining Peck

156
00:06:30,189 --> 00:06:27,919
included glenn research center director

157
00:06:32,200 --> 00:06:30,199
ray Lugo's nasa is committed to

158
00:06:33,520 --> 00:06:32,210
providing 400 hours of technical

159
00:06:35,529 --> 00:06:33,530
assistance from its science and

160
00:06:37,089 --> 00:06:35,539
engineering workforce to help the

161
00:06:39,909 --> 00:06:37,099
selected companies solve specific

162
00:06:41,980 --> 00:06:39,919
technical challenges they are facing in

163
00:06:44,560 --> 00:06:41,990

addition the city of Cleveland and

164
00:06:46,540 --> 00:06:44,570
Cuyahoga County are making four hundred

165
00:06:48,219 --> 00:06:46,550
fifty thousand dollars in low interest

166
00:06:50,469 --> 00:06:48,229
rate loans available to the company's

167
00:06:52,029 --> 00:06:50,479
this initiative is part of the White

168
00:06:54,189 --> 00:06:52,039
House Office of Science and Technology

169
00:06:58,540 --> 00:06:54,199
policies strong cities strong

170
00:07:00,670 --> 00:06:58,550
communities effort NASA deputy

171
00:07:02,469 --> 00:07:00,680
administrator lori garver and white

172
00:07:04,779 --> 00:07:02,479
house science and technology advisor

173
00:07:06,879 --> 00:07:04,789
John Holdren joined students and

174
00:07:09,129 --> 00:07:06,889
teachers from across the country for the

175
00:07:10,930 --> 00:07:09,139
Grail moon cam student Expo at

176
00:07:14,589 --> 00:07:10,940
Washington's Reagan Building and Trade

177
00:07:17,019 --> 00:07:14,599
Center moon cam short for moon knowledge

178
00:07:18,430 --> 00:07:17,029
acquired by middle school students is an

179
00:07:20,140 --> 00:07:18,440
education and out

180
00:07:22,990 --> 00:07:20,150
reach program that includes a suite of

181
00:07:25,480 --> 00:07:23,000
cameras on NASA's moon orbiting Grail

182
00:07:27,220 --> 00:07:25,490
spacecraft that students can use to

183
00:07:30,430 --> 00:07:27,230
gather and study imagery of the lunar

184
00:07:33,010 --> 00:07:30,440
surface also participating via Skype was

185
00:07:35,770 --> 00:07:33,020
America's first woman in space Sally

186
00:07:38,320 --> 00:07:35,780
Ride whose science team participates in

187
00:07:40,870 --> 00:07:38,330
the moon camp program when I was growing

188
00:07:43,390 --> 00:07:40,880

up it was really cool to be a scientist

189
00:07:45,850 --> 00:07:43,400
or an engineer kids watched the space

190
00:07:48,610 --> 00:07:45,860
program on TV and dreamed of building

191
00:07:52,240 --> 00:07:48,620
rockets to the stars or discovering life

192
00:07:55,870 --> 00:07:52,250
on Mars programs like moon cam make

193
00:07:57,730 --> 00:07:55,880
science cool again Grail moon cam is the

194
00:08:00,130 --> 00:07:57,740
first planetary mission carrying

195
00:08:02,380 --> 00:08:00,140
instruments fully dedicated to education

196
00:08:04,060 --> 00:08:02,390
and public outreach it's really a great

197
00:08:07,090 --> 00:08:04,070
example of what we need to be doing more

198
00:08:08,920 --> 00:08:07,100
on to lift our game in science and

199
00:08:10,690 --> 00:08:08,930
engineering and math education around

200
00:08:14,170 --> 00:08:10,700
the country it is very unique

201
00:08:16,740 --> 00:08:14,180
opportunity that you all have and I want

202
00:08:24,070 --> 00:08:16,750
to thank Sally for her incredible

203
00:08:26,260 --> 00:08:24,080
commitment at the monthly stunned a

204
00:08:28,690 --> 00:08:26,270
experiment families were able to

205
00:08:31,120 --> 00:08:28,700
participate in activities to explore and

206
00:08:36,900 --> 00:08:31,130
learn about the magnetic fields of the

207
00:08:39,940 --> 00:08:36,910
Sun electromagnets and ultraviolet light

208
00:08:42,159 --> 00:08:39,950
they also learned how NASA studies the

209
00:08:44,890 --> 00:08:42,169
Sun and space weather with the Solar

210
00:08:48,250 --> 00:08:44,900
Dynamics Observatory satellite launched

211
00:08:50,260 --> 00:08:48,260
in February 2010's do is designed to

212
00:08:53,110 --> 00:08:50,270
help us understand the sun's influence

213
00:08:55,390 --> 00:08:53,120

on earth and near-earth space by

214
00:08:58,300 --> 00:08:55,400
studying the solar atmosphere on small

215
00:09:04,450 --> 00:08:58,310
scales of space and time and in many

216
00:09:09,350 --> 00:09:07,190
James research center and the traveling

217
00:09:12,230 --> 00:09:09,360
space museum recently took the space

218
00:09:16,060 --> 00:09:12,240
experience on the road to motivate and

219
00:09:18,770 --> 00:09:16,070
inspire the next generation of explorers

220
00:09:21,290 --> 00:09:18,780
during a stop at California's Fresno

221
00:09:23,060 --> 00:09:21,300
State University elementary and middle

222
00:09:24,680 --> 00:09:23,070
school students learned about the basic

223
00:09:27,170 --> 00:09:24,690
principles of Aeronautics and Space

224
00:09:29,930 --> 00:09:27,180
Flight through interactive exhibits and

225
00:09:32,630 --> 00:09:29,940
activities they also heard from Ames

226
00:09:34,580 --> 00:09:32,640
deputy director Liu Braxton and alumnus

227
00:09:37,130 --> 00:09:34,590
of the University about the importance

228
00:09:39,260 --> 00:09:37,140
of study in science and math another

229
00:09:41,570 --> 00:09:39,270
museum event at ronald mcnair School in

230
00:09:43,790 --> 00:09:41,580
East Palo Alto California featured

231
00:09:45,770 --> 00:09:43,800
Cheryl McNeil widow of challenger

232
00:09:47,900 --> 00:09:45,780
astronaut Ron McNair that's what he

233
00:09:50,780 --> 00:09:47,910
liked to do was to let people know you

234
00:09:52,580 --> 00:09:50,790
can do this try it you can do it and he

235
00:09:54,080 --> 00:09:52,590
was so happy with what he was doing that

236
00:09:57,050 --> 00:09:54,090
he wanted other people to be happy as

237
00:09:59,630 --> 00:09:57,060
well mrs. McNair encouraged students to

238
00:10:01,370 --> 00:09:59,640

study science and math and emphasized

239
00:10:05,990 --> 00:10:01,380
the importance of dedication and

240
00:10:09,050 --> 00:10:06,000
persistence in achieving ones goals 10

241
00:10:10,430 --> 00:10:09,060
years ago on june fifth 2002 space

242
00:10:12,980 --> 00:10:10,440
shuttle Endeavour launched from the

243
00:10:15,290 --> 00:10:12,990
kennedy space center on sts-1 11 a

244
00:10:17,900 --> 00:10:15,300
utilization flight to the International

245
00:10:20,180 --> 00:10:17,910
Space Station the shuttle crew consisted

246
00:10:22,790 --> 00:10:20,190
of commander Ken cockrell pilot Paul

247
00:10:25,040 --> 00:10:22,800
Lockhart and mission specialists bleep

248
00:10:28,040 --> 00:10:25,050
Aaron of the European Space Agency and

249
00:10:30,290 --> 00:10:28,050
Franklin chang-diaz making his seventh

250
00:10:32,720 --> 00:10:30,300
trip to space tying the record set by

251
00:10:35,000 --> 00:10:32,730
fellow nasa astronaut jerry ross also

252
00:10:37,520 --> 00:10:35,010
riding uphill was the expedition five

253
00:10:40,160 --> 00:10:37,530
crew peggy whitson the station's first

254
00:10:43,700 --> 00:10:40,170
female commander and russian cosmonauts

255
00:10:45,770 --> 00:10:43,710
Valeri core soon and surg HSN the

256
00:10:48,140 --> 00:10:45,780
mission delivered payload and experiment

257
00:10:50,000 --> 00:10:48,150
racks to the Destiny laboratory and the

258
00:10:52,160 --> 00:10:50,010
mobile based system completing the

259
00:10:54,170 --> 00:10:52,170
station's mobile servicing system which

260
00:10:56,810 --> 00:10:54,180
includes the canadarm2 and the mobile

261
00:10:59,020 --> 00:10:56,820
transporter endeavours crew returned to

262
00:11:02,180 --> 00:10:59,030
Earth on jun 19 bringing with them

263
00:11:04,910 --> 00:11:02,190

cosmonaut yuri on your fariko and nasa

264
00:11:08,100 --> 00:11:04,920
astronauts dan burisch and carl waltz of

265
00:11:12,790 --> 00:11:10,900
President Obama bestowed upon former US

266
00:11:15,429 --> 00:11:12,800
senator and NASA astronaut John Glenn

267
00:11:18,210 --> 00:11:15,439
the 2012 presidential medal of freedom

268
00:11:21,220 --> 00:11:18,220
the nation's highest civilian award

269
00:11:22,989 --> 00:11:21,230
Glenn is one of 13 Americans so honored

270
00:11:25,660 --> 00:11:22,999
at the White House this year for quote

271
00:11:28,299 --> 00:11:25,670
and especially meritorious contribution

272
00:11:31,449 --> 00:11:28,309
to the security or national interest of

273
00:11:33,160 --> 00:11:31,459
the United States World Peace cultural

274
00:11:37,329 --> 00:11:33,170
or other significant public or private

275
00:11:39,939 --> 00:11:37,339
endeavors in 1962 as one of the original

276
00:11:42,549 --> 00:11:39,949
mercury 7 astronauts Glenn became the

277
00:11:44,530 --> 00:11:42,559
first American to orbit the Earth he's

278
00:11:47,169 --> 00:11:44,540
also the oldest man ever to have flown

279
00:11:49,449 --> 00:11:47,179
in space doing so as a 77-year old

280
00:11:54,519 --> 00:11:49,459
member of the shuttle discovery crew in

281
00:11:56,290 --> 00:11:54,529
1998 and that's this week @nasa for more

282
00:11:58,569 --> 00:11:56,300
on these and other stories or to follow