1
00:00:12,709 --> 00:00:10,629
this week at nasa

2
00:00:14,390 --> 00:00:12,719
we're announcing today our first

3
00:00:17,029 --> 00:00:14,400
discovery of

4
00:00:19,750 --> 00:00:17,039
poo a proven pair of planets orbiting a

5
00:00:22,070 --> 00:00:19,760
single star nasa's kepler mission has

6
00:00:24,790 --> 00:00:22,080
discovered the first confirmed planetary

7
00:00:28,070 --> 00:00:24,800
system outside of our own that has more

8
00:00:30,230 --> 00:00:28,080
than one planet transiting the same star

9
00:00:31,990 --> 00:00:30,240
scientists have named the sun-like star

10
00:00:34,790 --> 00:00:32,000
at the center of this newly discovered

11
00:00:37,430 --> 00:00:34,800
planetary system kepler-9 the two

12
00:00:38,790 --> 00:00:37,440
planets have been designated kepler-9b

13
00:00:40,549 --> 00:00:38,800

and 9c

14
00:00:42,790 --> 00:00:40,559
the announcement of their discovery

15
00:00:44,389 --> 00:00:42,800
comes after seven months of observations

16
00:00:46,709 --> 00:00:44,399
by the kepler spacecraft

17
00:00:48,709 --> 00:00:46,719
the transit timing method works by

18
00:00:50,709 --> 00:00:48,719
having the timing of the planet when it

19
00:00:52,470 --> 00:00:50,719
goes in front of the star the star dims

20
00:00:54,709 --> 00:00:52,480
so we measure that time and we measure

21
00:00:57,029 --> 00:00:54,719
what happens again that's the orbital

22
00:00:59,110 --> 00:00:57,039
period if that varies a little bit that

23
00:01:01,510 --> 00:00:59,120
tells us about the planets that are

24
00:01:05,109 --> 00:01:01,520
orbiting that star the kepler mission

25
00:01:07,910 --> 00:01:05,119
continuously monitors more than 156 000

26
00:01:09,670 --> 00:01:07,920
stars for subtle brightness changes as

27
00:01:11,990 --> 00:01:09,680
part of its ongoing search for

28
00:01:17,109 --> 00:01:12,000
earth-like planets outside our solar

29
00:01:20,469 --> 00:01:18,870
nasa scientists joined with

30
00:01:23,270 --> 00:01:20,479
international researchers in the

31
00:01:26,070 --> 00:01:23,280
canadian arctic to test concepts for

32
00:01:28,630 --> 00:01:26,080
future planetary exploration

33
00:01:30,789 --> 00:01:28,640
the annual haughton mars project centers

34
00:01:32,069 --> 00:01:30,799
on the haunted crater on devon island

35
00:01:34,710 --> 00:01:32,079
canada

36
00:01:37,510 --> 00:01:34,720
arid rocky environment has geological

37
00:01:39,830 --> 00:01:37,520
features and microbiology similar to

38
00:01:41,749 --> 00:01:39,840

what explorers might encounter on other

39
00:01:43,990 --> 00:01:41,759
planetary bodies we're trying to learn

40
00:01:46,149 --> 00:01:44,000
new ways to integrate humans and robots

41
00:01:48,469 --> 00:01:46,159
into more productive teams this year's

42
00:01:51,510 --> 00:01:48,479
study focused on how remotely operated

43
00:01:57,030 --> 00:01:51,520
robots could save astronauts time and

44
00:02:00,870 --> 00:01:58,709
former nasa space shuttle astronaut

45
00:02:02,789 --> 00:02:00,880
robert hoop gibson was honored recently

46
00:02:04,870 --> 00:02:02,799
by the lancaster jayhawks california

47
00:02:06,830 --> 00:02:04,880
league baseball team during its annual

48
00:02:09,109 --> 00:02:06,840
aerospace appreciation

49
00:02:10,550 --> 00:02:09,119
night gibson a veteran of five space

50
00:02:14,550 --> 00:02:10,560
shuttle missions threw out the first

51
00:02:14,560 --> 00:02:20,390
followed by a flyover by a nasa f-a-18

52
00:02:23,990 --> 00:02:21,990
many of the fans in attendance received

53
00:02:26,550 --> 00:02:24,000
a bobble head in gibson's likeness

54
00:02:28,710 --> 00:02:26,560
mounted on a space shuttle base

55
00:02:30,470 --> 00:02:28,720
after retiring from the astronaut corps

56
00:02:32,630 --> 00:02:30,480
gibson flew jetliners for southwest

57
00:02:35,110 --> 00:02:32,640
airlines for 10 years it keeps his

58
00:02:41,509 --> 00:02:35,120
flying skills sharp today as a pilot at

59
00:02:46,150 --> 00:02:44,150
we now know where avatar director james

60
00:02:48,150 --> 00:02:46,160
cameron is featured in new public

61
00:02:50,869 --> 00:02:48,160
service announcements that tout nasa's

62
00:02:53,990 --> 00:02:50,879
contributions to environmental awareness

63
00:02:56,150 --> 00:02:54,000

and the exploration of our home planet

64
00:02:58,149 --> 00:02:56,160
avatar centers on a beautiful planet

65
00:02:59,910 --> 00:02:58,159
threatened by the exploitation of its

66
00:03:03,110 --> 00:02:59,920
natural resources

67
00:03:05,270 --> 00:03:03,120
the psas feature avatar film imagery and

68
00:03:07,270 --> 00:03:05,280
computer animations based on data from

69
00:03:09,430 --> 00:03:07,280
nasa's fleet of earth-observing

70
00:03:11,190 --> 00:03:09,440
satellites the orbiting spacecraft

71
00:03:13,030 --> 00:03:11,200
provide cutting-edge data of the

72
00:03:14,229 --> 00:03:13,040
atmosphere

73
00:03:15,589 --> 00:03:14,239
oceans

74
00:03:16,830 --> 00:03:15,599
land surface

75
00:03:21,190 --> 00:03:16,840
snow and

76
00:03:23,990 --> 00:03:21,200
ice the psas are showing on nasa tv and

77
00:03:28,630 --> 00:03:24,000
are available on nasa.gov and nasa

78
00:03:31,990 --> 00:03:30,630
nasa headed to the ballpark for a friday

79
00:03:34,309 --> 00:03:32,000
night outing with the new orleans

80
00:03:36,149 --> 00:03:34,319
zephyrs baseball team stennis space

81
00:03:38,149 --> 00:03:36,159
center director patrick sherman threw

82
00:03:40,630 --> 00:03:38,159
out the first pitch and the crowd was

83
00:03:42,550 --> 00:03:40,640
treated to a visit by a special guest a

84
00:03:44,550 --> 00:03:42,560
larger-than-life astronaut

85
00:03:46,630 --> 00:03:44,560
fans also stopped by an exhibit to learn

86
00:03:49,030 --> 00:03:46,640
more about how nasa technology has

87
00:03:50,869 --> 00:03:49,040
helped shape everyday life including the

88
00:03:54,149 --> 00:03:50,879

sports related spin-offs that have come

89
00:03:56,710 --> 00:03:54,159
from the agency's research

90
00:03:58,869 --> 00:03:56,720
nasa recently ventured to a galaxy not

91
00:04:00,869 --> 00:03:58,879
so far far away to share its real

92
00:04:03,350 --> 00:04:00,879
real-life accomplishments and future

93
00:04:06,309 --> 00:04:03,360
goals with the filmmakers actors and

94
00:04:09,350 --> 00:04:06,319
fans of the star wars saga at the star

95
00:04:11,030 --> 00:04:09,360
wars 5 celebration in orlando florida

96
00:04:13,270 --> 00:04:11,040
and it's always been

97
00:04:16,229 --> 00:04:13,280
a quest of man to look up into the stars

98
00:04:19,430 --> 00:04:16,239
and wonder what is beyond that black and

99
00:04:22,310 --> 00:04:19,440
blue space 33 years after its debut in

100
00:04:24,790 --> 00:04:22,320
theaters star wars remains a cultural

101
00:04:27,110 --> 00:04:24,800
icon that stirs our imaginations about

102
00:04:29,670 --> 00:04:27,120
space and exploration

103
00:04:32,150 --> 00:04:29,680
the nasa booth reminded visitors how

104
00:04:34,550 --> 00:04:32,160
during that same time america's space

105
00:04:36,550 --> 00:04:34,560
program has continued to change and

106
00:04:39,270 --> 00:04:36,560
improve people's lives here on earth

107
00:04:41,110 --> 00:04:39,280
while exploring what lies beyond it's

108
00:04:43,990 --> 00:04:41,120
been very influential in getting people

109
00:04:46,870 --> 00:04:44,000
to realize that there is a a kind of

110
00:04:49,350 --> 00:04:46,880
future for the whole space

111
00:04:51,670 --> 00:04:49,360
operation and what nasa has done up till

112
00:04:53,909 --> 00:04:51,680
now i mean the moon landings of course

113
00:04:55,350 --> 00:04:53,919

were really important but more recently

114
00:04:57,350 --> 00:04:55,360
i think the whole

115
00:04:58,629 --> 00:04:57,360
hubble telescope and and the space

116
00:05:00,390 --> 00:04:58,639
station

117
00:05:02,870 --> 00:05:00,400
have been

118
00:05:05,270 --> 00:05:02,880
very good keys for people that that this

119
00:05:06,870 --> 00:05:05,280
work is really important and that's this

120
00:05:08,870 --> 00:05:06,880
week at nasa