1
00:00:09,150 --> 00:00:07,650
this holiday season we want to take a

2
00:00:11,700 --> 00:00:09,160
moment to send our best wishes and

3
00:00:14,850 --> 00:00:11,710
sincere thanks to each of you for making

4
00:00:17,310 --> 00:00:14,860
2009 another great year for NASA NASA

5
00:00:18,570 --> 00:00:17,320
strength is its people each of you made

6
00:00:20,490 --> 00:00:18,580
the accomplishments of this year

7
00:00:23,100 --> 00:00:20,500
possible when I came to NASA as an

8
00:00:25,290 --> 00:00:23,110
astronaut candidate in 1980 I was

9
00:00:27,480 --> 00:00:25,300
excited about becoming part of a team

10
00:00:28,830 --> 00:00:27,490
that is well renowned for the greatest

11
00:00:31,050 --> 00:00:28,840
accomplishments mankind has ever

12
00:00:33,720 --> 00:00:31,060
undertaken human space travel and

13
00:00:37,139 --> 00:00:33,730

scientific discovery unparalleled by

14
00:00:39,000 --> 00:00:37,149
Paris generations today I still have

15
00:00:41,549 --> 00:00:39,010
that excitement in the honor of leading

16
00:00:43,650 --> 00:00:41,559
the NASA team when I became the 12th

17
00:00:45,690 --> 00:00:43,660
NASA Administrator in July the

18
00:00:48,660 --> 00:00:45,700
excitement I felt was even stronger than

19
00:00:50,850 --> 00:00:48,670
in 1980 we've had another great year

20
00:00:52,770 --> 00:00:50,860
NASA continues to lead the world in

21
00:00:54,930 --> 00:00:52,780
aeronautics with innovations that keep

22
00:00:57,060 --> 00:00:54,940
America competitive in aviation and

23
00:00:59,369 --> 00:00:57,070
aerospace technologies we're helping

24
00:01:01,709 --> 00:00:59,379
design the future of air travel making

25
00:01:04,200 --> 00:01:01,719
airplanes faster and safer in this new

26
00:01:06,180 --> 00:01:04,210
century we shared the collier trophy in

27
00:01:08,250 --> 00:01:06,190
2009 for the work our commercial

28
00:01:09,930 --> 00:01:08,260
aviation safety team did to make the

29
00:01:12,780 --> 00:01:09,940
previous year the safest year in

30
00:01:15,240 --> 00:01:12,790
commercial aviation history in the realm

31
00:01:17,880 --> 00:01:15,250
of scientific discovery NASA remains

32
00:01:20,160 --> 00:01:17,890
unsurpassed we just launched the wise

33
00:01:22,380 --> 00:01:20,170
spacecraft a mission that will provide

34
00:01:24,960 --> 00:01:22,390
the first-ever all-sky survey in

35
00:01:26,580 --> 00:01:24,970
infrared light but lies isn't the only

36
00:01:29,910 --> 00:01:26,590
science mission we've launched this year

37
00:01:32,280 --> 00:01:29,920
in 2009 NASA's LR 0 and L cross

38
00:01:34,800 --> 00:01:32,290

spacecraft went to revisit and explore

39
00:01:36,690 --> 00:01:34,810
the moon I'll cross dove into a crater

40
00:01:38,700 --> 00:01:36,700
on the moon kicking up material that

41
00:01:41,370 --> 00:01:38,710
helps us determine there's water in them

42
00:01:43,560 --> 00:01:41,380
there hills LRO continues to orbit the

43
00:01:46,020 --> 00:01:43,570
moon mapping Earth's oldest satellite in

44
00:01:48,390 --> 00:01:46,030
detail never-before-seen partnering with

45
00:01:50,520 --> 00:01:48,400
India NASA instruments also determine

46
00:01:52,350 --> 00:01:50,530
the moon has water begging new questions

47
00:01:54,030 --> 00:01:52,360
about how the moon was formed and how

48
00:01:56,429 --> 00:01:54,040
the water a key to life as we know it

49
00:01:58,679 --> 00:01:56,439
got there looking closer to home our

50
00:02:01,230 --> 00:01:58,689
earth sciences program continues to

51
00:02:03,450 --> 00:02:01,240
discover new facts and monitors changes

52
00:02:05,370 --> 00:02:03,460
in the climate of our blue planet NASA

53
00:02:07,200 --> 00:02:05,380
continues to lead the world in global

54
00:02:10,169 --> 00:02:07,210
measurements of greenhouse gases from

55
00:02:12,299 --> 00:02:10,179
space our amada of Earth observing

56
00:02:14,580 --> 00:02:12,309
satellites takes daily measurements of

57
00:02:15,470 --> 00:02:14,590
everything from sea surface height to

58
00:02:18,229 --> 00:02:15,480
the health of the rain

59
00:02:20,630 --> 00:02:18,239
for us in the Amazon data we share with

60
00:02:22,970 --> 00:02:20,640
the world and decision makers so they

61
00:02:25,970 --> 00:02:22,980
can develop sound policies based on

62
00:02:27,890 --> 00:02:25,980
scientific facts this year NASA launched

63
00:02:30,289 --> 00:02:27,900

the airborne ice bridge mission to study

64
00:02:31,940 --> 00:02:30,299
changes in polar ice the mission will

65
00:02:33,559 --> 00:02:31,950
cover any gap in ice measurements

66
00:02:34,850 --> 00:02:33,569
between the end of the ice at satellite

67
00:02:37,670 --> 00:02:34,860
mission and the launch of its

68
00:02:39,559 --> 00:02:37,680
replacement in 2014 keeping an annual

69
00:02:41,720 --> 00:02:39,569
record of changes in polar ice helps us

70
00:02:43,580 --> 00:02:41,730
understand how fast the ice is melting

71
00:02:45,860 --> 00:02:43,590
and what that means for sea level rise

72
00:02:48,920 --> 00:02:45,870
ocean temperatures and global warming

73
00:02:52,009 --> 00:02:48,930
another cold place NASA continues to

74
00:02:54,770 --> 00:02:52,019
explore is Mars discovery of methane on

75
00:02:57,500 --> 00:02:54,780
Mars has scientists wondering where it's

76
00:02:59,720 --> 00:02:57,510
coming from and if it's a telltale sign

77
00:03:02,360 --> 00:02:59,730
of some form of life underneath the

78
00:03:04,759 --> 00:03:02,370
surface of the red planet NASA's Mars

79
00:03:06,830 --> 00:03:04,769
rovers had another great year still

80
00:03:09,319 --> 00:03:06,840
gathering data long after their expected

81
00:03:11,390 --> 00:03:09,329
lifespan while spirit appears to be

82
00:03:13,160 --> 00:03:11,400
stuck in the sand for good the plucky

83
00:03:16,039 --> 00:03:13,170
pioneer will continue to serve as a

84
00:03:17,440 --> 00:03:16,049
weather station Sentinel looking outward

85
00:03:19,789 --> 00:03:17,450
the amazing Hubble Space Telescope

86
00:03:22,520 --> 00:03:19,799
continues to bring us discoveries beyond

87
00:03:24,409 --> 00:03:22,530
our wildest imagination after astronauts

88
00:03:26,659 --> 00:03:24,419

completed a successful servicing mission

89
00:03:28,309 --> 00:03:26,669
last May the venerable telescope has

90
00:03:30,620 --> 00:03:28,319
shown us new views of the universe

91
00:03:33,409 --> 00:03:30,630
peering back in time further than ever

92
00:03:36,020 --> 00:03:33,419
before NASA's exploration efforts aren't

93
00:03:38,360 --> 00:03:36,030
just limited to science our exploration

94
00:03:40,280 --> 00:03:38,370
systems Mission Directorate successfully

95
00:03:42,949 --> 00:03:40,290
proved the fight worthiness of the Ares

96
00:03:44,659 --> 00:03:42,959
1x test vehicle this summer launching a

97
00:03:46,819 --> 00:03:44,669
prototype rocket that will help in the

98
00:03:48,319 --> 00:03:46,829
design of future rockets we helped spur

99
00:03:50,120 --> 00:03:48,329
development of America's commercial

100
00:03:52,520 --> 00:03:50,130
space industry through our Centennial

101
00:03:54,259 --> 00:03:52,530
Challenges program through competition

102
00:03:55,759 --> 00:03:54,269
and prize money NASA saw innovative

103
00:03:57,800 --> 00:03:55,769
aerospace companies successfully

104
00:03:59,869 --> 00:03:57,810
simulate landing a spacecraft on the

105
00:04:02,000 --> 00:03:59,879
moon and then having it take off again

106
00:04:03,860 --> 00:04:02,010
the lunar lander challenge was one of

107
00:04:06,110 --> 00:04:03,870
several competitions NASA sponsored in

108
00:04:08,000 --> 00:04:06,120
2009 to help find innovative solutions

109
00:04:10,580 --> 00:04:08,010
to technical challenges through

110
00:04:13,550 --> 00:04:10,590
competition and cooperation to keep

111
00:04:15,199 --> 00:04:13,560
America the leader in space NASA engages

112
00:04:17,210 --> 00:04:15,209
young people across the nation and

113
00:04:18,759 --> 00:04:17,220

encourages them to study and consider

114
00:04:22,039 --> 00:04:18,769
careers in science technology

115
00:04:25,279 --> 00:04:22,049
engineering and mathematics Joe acaba

116
00:04:27,720 --> 00:04:25,289
and Richard Arnold to NASA astronauts

117
00:04:29,340 --> 00:04:27,730
who also happen to be science teachers

118
00:04:31,680 --> 00:04:29,350
made their first journey into orbit

119
00:04:33,210 --> 00:04:31,690
aboard the shuttle last februari during

120
00:04:35,250 --> 00:04:33,220
their mission the two astronauts

121
00:04:38,730 --> 00:04:35,260
conducted in flight events with students

122
00:04:40,320 --> 00:04:38,740
teachers and even the president through

123
00:04:43,110 --> 00:04:40,330
our partnerships with schools across

124
00:04:44,700 --> 00:04:43,120
America NASA continues to excite young

125
00:04:47,370 --> 00:04:44,710
people about the possibilities of

126
00:04:49,800 --> 00:04:47,380
careers and high-tech fields hold for

127
00:04:52,530 --> 00:04:49,810
them joann richards flight was one of

128
00:04:54,540 --> 00:04:52,540
the five crucial flights nasa space

129
00:04:56,460 --> 00:04:54,550
shuttle fleet performed in 2009 in

130
00:04:58,590 --> 00:04:56,470
addition to the successful Hubble

131
00:04:59,940 --> 00:04:58,600
servicing mission astronauts flew for

132
00:05:02,340 --> 00:04:59,950
flights to the International Space

133
00:05:05,280 --> 00:05:02,350
Station ferrying crew and cargo to our

134
00:05:07,620 --> 00:05:05,290
orbiting National Lab 2009 saw the first

135
00:05:10,260 --> 00:05:07,630
six-person crew on the station the

136
00:05:12,690 --> 00:05:10,270
station's mass expanded to almost 372

137
00:05:14,100 --> 00:05:12,700
tons an acre of solar panels supply the

138
00:05:16,560 --> 00:05:14,110

station's power and new recycling

139
00:05:18,780 --> 00:05:16,570
systems provide clean water for the crew

140
00:05:20,850 --> 00:05:18,790
the shuttle also carried the Colbert

141
00:05:23,100 --> 00:05:20,860
treadmill up to the outpost so

142
00:05:25,920 --> 00:05:23,110
astronauts can exercise fight muscle

143
00:05:28,560 --> 00:05:25,930
decay and bone loss as we look toward

144
00:05:30,240 --> 00:05:28,570
2010 I see a lot of challenges but also

145
00:05:32,820 --> 00:05:30,250
a lot of opportunities for great things

146
00:05:34,320 --> 00:05:32,830
I know that next year like 2009 will

147
00:05:36,390 --> 00:05:34,330
prove to be a year of accomplishment and

148
00:05:39,300 --> 00:05:36,400
awe thanks to the hard work of each of

149
00:05:40,710 --> 00:05:39,310
you thank you for all you do we hope you