



1
00:00:14,629 --> 00:00:12,390
i come to you today to speak to the

2
00:00:16,630 --> 00:00:14,639
entire nasa family and congratulate you

3
00:00:18,070 --> 00:00:16,640
all on another banner year for the

4
00:00:19,269 --> 00:00:18,080
agency

5
00:00:20,950 --> 00:00:19,279
this year

6
00:00:23,990 --> 00:00:20,960
your work made headlines around the

7
00:00:25,910 --> 00:00:24,000
world but more importantly it enlarged

8
00:00:27,269 --> 00:00:25,920
our understanding of the universe and

9
00:00:30,390 --> 00:00:27,279
our home planet

10
00:00:32,870 --> 00:00:30,400
inspired people and opened new frontiers

11
00:00:34,389 --> 00:00:32,880
for our dreams and aspirations

12
00:00:35,670 --> 00:00:34,399
i know it's been a tough year in many

13
00:00:37,670 --> 00:00:35,680

ways

14

00:00:40,069 --> 00:00:37,680

all of us lived with uncertainty about

15

00:00:42,470 --> 00:00:40,079

our agency's future direction

16

00:00:45,270 --> 00:00:42,480

and we all felt some sadness along with

17

00:00:46,470 --> 00:00:45,280

the exhilaration as each successful

18

00:00:48,310 --> 00:00:46,480

shuttle launch

19

00:00:50,790 --> 00:00:48,320

brought us one step closer to the end of

20

00:00:52,470 --> 00:00:50,800

one of our flagship programs

21

00:00:55,430 --> 00:00:52,480

in spite of the obstacles and

22

00:00:58,790 --> 00:00:55,440

uncertainties we faced it's a marvel to

23

00:01:01,110 --> 00:00:58,800

me how much we were able to accomplish

24

00:01:03,430 --> 00:01:01,120

this is a testament to your dedication

25

00:01:05,590 --> 00:01:03,440

and professionalism

26

00:01:06,870 --> 00:01:05,600

we live in a time of change and

27

00:01:09,030 --> 00:01:06,880

challenge

28

00:01:11,350 --> 00:01:09,040

as president kennedy said about his

29

00:01:13,910 --> 00:01:11,360

charge to reach the moon

30

00:01:15,030 --> 00:01:13,920

we do these things not because they're

31

00:01:17,190 --> 00:01:15,040

easy

32

00:01:19,910 --> 00:01:17,200

but because they are hard

33

00:01:22,149 --> 00:01:19,920

because that goal will serve to organize

34

00:01:23,749 --> 00:01:22,159

and measure the best of our energies and

35

00:01:26,550 --> 00:01:23,759

skills

36

00:01:29,109 --> 00:01:26,560

his direction still holds

37

00:01:30,630 --> 00:01:29,119

we do the hard things because no one

38

00:01:33,190 --> 00:01:30,640

else can

39
00:01:35,590 --> 00:01:33,200
we do it to advance human knowledge and

40
00:01:37,990 --> 00:01:35,600
improve the human condition

41
00:01:40,469 --> 00:01:38,000
to take the easy path will not bring us

42
00:01:41,429 --> 00:01:40,479
to the future we want

43
00:01:44,069 --> 00:01:41,439
now

44
00:01:46,069 --> 00:01:44,079
with president obama's leadership

45
00:01:48,069 --> 00:01:46,079
and bipartisan support in congress for

46
00:01:51,429 --> 00:01:48,079
nasa's authorization act

47
00:01:54,149 --> 00:01:51,439
2011 promises to be a much brighter year

48
00:01:56,469 --> 00:01:54,159
as we make steady progress to implement

49
00:01:59,590 --> 00:01:56,479
our new path forward

50
00:02:01,190 --> 00:01:59,600
over the course of the past 18 months

51
00:02:03,990 --> 00:02:01,200
we've put together a good management

52
00:02:06,230 --> 00:02:04,000
team to lead us through this transition

53
00:02:07,590 --> 00:02:06,240
adding bobby braun is the agency's chief

54
00:02:09,990 --> 00:02:07,600
technologist

55
00:02:11,029 --> 00:02:10,000
waleed abdallati as the agency's chief

56
00:02:12,949 --> 00:02:11,039
scientist

57
00:02:14,630 --> 00:02:12,959
and leland melvin as head of our

58
00:02:16,390 --> 00:02:14,640
education office

59
00:02:18,390 --> 00:02:16,400
as a management team

60
00:02:20,390 --> 00:02:18,400
we've had a couple of opportunities to

61
00:02:21,830 --> 00:02:20,400
engage in strategic planning and

62
00:02:24,150 --> 00:02:21,840
thinking sessions

63
00:02:25,270 --> 00:02:24,160

including one we just completed earlier

64

00:02:28,470 --> 00:02:25,280

this week

65

00:02:30,470 --> 00:02:28,480

and we're all on the same page and eager

66

00:02:32,309 --> 00:02:30,480

to move forward

67

00:02:34,150 --> 00:02:32,319

we made history this month

68

00:02:37,030 --> 00:02:34,160

as our partner in commercial orbital

69

00:02:39,589 --> 00:02:37,040

transportation system program spacex

70

00:02:41,750 --> 00:02:39,599

became the first commercial company to

71

00:02:45,190 --> 00:02:41,760

successfully launch a rocket and

72

00:02:47,589 --> 00:02:45,200

retrieve a capsule after intact re-entry

73

00:02:49,589 --> 00:02:47,599

we're on the cusp of opening an entirely

74

00:02:51,830 --> 00:02:49,599

new segment of the economy

75

00:02:54,150 --> 00:02:51,840

that will thrive on innovation and help

76

00:02:55,670 --> 00:02:54,160

create good jobs

77

00:02:57,670 --> 00:02:55,680

the cots team

78

00:03:00,390 --> 00:02:57,680

and the other companies working on their

79

00:03:03,190 --> 00:03:00,400

own milestones are helping us not only

80

00:03:05,910 --> 00:03:03,200

rethink how we do business but actually

81

00:03:07,910 --> 00:03:05,920

making it happen in real time

82

00:03:10,470 --> 00:03:07,920

i know we're keeping the textbook

83

00:03:12,949 --> 00:03:10,480

publishers busy because it seems like

84

00:03:15,509 --> 00:03:12,959

new editions of the standard text need

85

00:03:18,390 --> 00:03:15,519

to be written every time our scientists

86

00:03:19,990 --> 00:03:18,400

make a revolutionary finding and in 2010

87

00:03:22,949 --> 00:03:20,000

there were quite a few

88

00:03:24,789 --> 00:03:22,959

this year our scientists transformed our

89

00:03:27,190 --> 00:03:24,799

understanding of the moon

90

00:03:29,670 --> 00:03:27,200

detailed evaluation of the lunar crater

91

00:03:31,750 --> 00:03:29,680

observation and sensing satellite data

92

00:03:33,430 --> 00:03:31,760

along with help from the orbiting lunar

93

00:03:35,589 --> 00:03:33,440

reconnaissance orbiter

94

00:03:38,869 --> 00:03:35,599

showed us that our neighbor harbors many

95

00:03:40,949 --> 00:03:38,879

compounds chief among them water ice and

96

00:03:43,350 --> 00:03:40,959

it has a hydration cycle

97

00:03:46,390 --> 00:03:43,360

and while scientists gave us that new

98

00:03:49,030 --> 00:03:46,400

moon this year they also gave us new

99

00:03:50,550 --> 00:03:49,040

eyes on the sun with the solar dynamics

100

00:03:52,309 --> 00:03:50,560

observatory

101
00:03:54,710 --> 00:03:52,319
they pierced the veil of our solar

102
00:03:56,949 --> 00:03:54,720
system and discovered new things about

103
00:03:59,270 --> 00:03:56,959
planets orbiting other stars

104
00:04:01,270 --> 00:03:59,280
with the fermi observatory they showed

105
00:04:03,350 --> 00:04:01,280
us a previously unseen structure

106
00:04:05,350 --> 00:04:03,360
centered in the milky way

107
00:04:08,470 --> 00:04:05,360
that may very well be the remnant of an

108
00:04:09,750 --> 00:04:08,480
eruption from a super-sized black hole

109
00:04:12,149 --> 00:04:09,760
epoxy

110
00:04:14,470 --> 00:04:12,159
gave us stunning images of a comet

111
00:04:16,949 --> 00:04:14,480
the best we've ever seen and all from a

112
00:04:18,710 --> 00:04:16,959
spacecraft that had already fulfilled

113
00:04:20,870 --> 00:04:18,720

its primary mission

114

00:04:23,670 --> 00:04:20,880

that's just a tiny sampling of the

115

00:04:24,950 --> 00:04:23,680

wonders coming out of nasa science

116

00:04:27,189 --> 00:04:24,960

here on earth

117

00:04:29,510 --> 00:04:27,199

we achieved our goal of turning our data

118

00:04:32,629 --> 00:04:29,520

into useful tools and making exploration

119

00:04:35,350 --> 00:04:32,639

technology work for everyone

120

00:04:37,670 --> 00:04:35,360

when 33 miners were trapped in chile

121

00:04:39,350 --> 00:04:37,680

their government called on nasa experts

122

00:04:41,590 --> 00:04:39,360

to help with the nutritional and

123

00:04:42,390 --> 00:04:41,600

behavioral issues the miners would

124

00:04:44,550 --> 00:04:42,400

encounter

125

00:04:46,390 --> 00:04:44,560

before their successful rescue

126
00:04:48,070 --> 00:04:46,400
and also to assist with the rescue

127
00:04:49,510 --> 00:04:48,080
vehicle design

128
00:04:51,830 --> 00:04:49,520
similarly

129
00:04:53,990 --> 00:04:51,840
we help the world visualize the oil

130
00:04:56,070 --> 00:04:54,000
spill in the gulf of mexico by

131
00:04:59,270 --> 00:04:56,080
repurposing some of our earth observing

132
00:05:01,590 --> 00:04:59,280
satellites and finding new applications

133
00:05:03,830 --> 00:05:01,600
for some of the prototype hardware that

134
00:05:06,629 --> 00:05:03,840
was flying in airplanes

135
00:05:09,029 --> 00:05:06,639
our data helped illuminate and

136
00:05:12,070 --> 00:05:09,039
illustrate the spill's location

137
00:05:13,670 --> 00:05:12,080
oil concentrations and impacts on gulf

138
00:05:15,749 --> 00:05:13,680

ecosystems

139

00:05:18,390 --> 00:05:15,759

when disaster struck in haiti

140

00:05:20,550 --> 00:05:18,400

we were able to help there too

141

00:05:22,150 --> 00:05:20,560

and enable the world to see the extent

142

00:05:24,150 --> 00:05:22,160

of the disaster

143

00:05:26,230 --> 00:05:24,160

we also kicked off a new node of the

144

00:05:28,550 --> 00:05:26,240

severe system in nepal

145

00:05:31,029 --> 00:05:28,560

another example of how earth and space

146

00:05:33,590 --> 00:05:31,039

observations can be combined to help

147

00:05:35,670 --> 00:05:33,600

decision makers make good choices and

148

00:05:37,590 --> 00:05:35,680

respond to disaster

149

00:05:39,350 --> 00:05:37,600

among the big news for nasa in the

150

00:05:40,790 --> 00:05:39,360

president's new direction

151
00:05:43,189 --> 00:05:40,800
was extending the life of the

152
00:05:44,550 --> 00:05:43,199
international space station to at least

153
00:05:46,550 --> 00:05:44,560
2020

154
00:05:49,350 --> 00:05:46,560
which will allow us to more effectively

155
00:05:51,029 --> 00:05:49,360
plan for its use and support a wide

156
00:05:52,629 --> 00:05:51,039
variety of research and engineering

157
00:05:55,270 --> 00:05:52,639
demonstrations

158
00:05:57,990 --> 00:05:55,280
this decision came on the heels of our

159
00:06:00,550 --> 00:05:58,000
milestones celebrating 10 years of

160
00:06:02,309 --> 00:06:00,560
continuous human habitation aboard the

161
00:06:05,430 --> 00:06:02,319
orbiting laboratory

162
00:06:07,430 --> 00:06:05,440
this year we conducted more than 130

163
00:06:09,110 --> 00:06:07,440

experiments aboard the station in

164

00:06:10,550 --> 00:06:09,120

biotechnology

165

00:06:12,230 --> 00:06:10,560

human research

166

00:06:14,469 --> 00:06:12,240

physical sciences and technology

167

00:06:17,749 --> 00:06:14,479

demonstrations supporting the work of

168

00:06:20,150 --> 00:06:17,759

more than 400 researchers worldwide

169

00:06:21,990 --> 00:06:20,160

in the coming years we can expect

170

00:06:24,629 --> 00:06:22,000

advances resulting from the study of

171

00:06:26,870 --> 00:06:24,639

materials and structures in microgravity

172

00:06:29,909 --> 00:06:26,880

such as increased understanding of

173

00:06:31,590 --> 00:06:29,919

bacterial virulence and how liquid flows

174

00:06:33,990 --> 00:06:31,600

through materials

175

00:06:36,469 --> 00:06:34,000

this focused approach will maximize the

176
00:06:40,309 --> 00:06:36,479
station's value to science in the coming

177
00:06:42,309 --> 00:06:40,319
years and its use by many more entities

178
00:06:44,629 --> 00:06:42,319
and we'll reap the benefits of this

179
00:06:46,230 --> 00:06:44,639
unprecedented model for international

180
00:06:47,430 --> 00:06:46,240
cooperation

181
00:06:49,430 --> 00:06:47,440
this year

182
00:06:51,510 --> 00:06:49,440
our shuttle astronauts and expedition

183
00:06:53,749 --> 00:06:51,520
crews aboard the station

184
00:06:56,309 --> 00:06:53,759
performed amazing feats

185
00:06:58,070 --> 00:06:56,319
inside and outside the complex

186
00:07:00,469 --> 00:06:58,080
and the technicians

187
00:07:03,510 --> 00:07:00,479
engineers launch and flight directors

188
00:07:05,350 --> 00:07:03,520

and thousands of others who made each

189

00:07:07,189 --> 00:07:05,360

shuttle flight safe

190

00:07:09,589 --> 00:07:07,199

and enable the crews to achieve their

191

00:07:11,830 --> 00:07:09,599

mission goals earned our deepest

192

00:07:13,749 --> 00:07:11,840

admiration and gratitude

193

00:07:15,430 --> 00:07:13,759

our diligent focus on aeronautics

194

00:07:17,749 --> 00:07:15,440

research continues to pave the way

195

00:07:20,070 --> 00:07:17,759

toward the air transportation system of

196

00:07:21,270 --> 00:07:20,080

the future next gen

197

00:07:23,589 --> 00:07:21,280

this year

198

00:07:25,909 --> 00:07:23,599

we concluded an 18-month research effort

199

00:07:28,230 --> 00:07:25,919

working with industry to visualize the

200

00:07:31,110 --> 00:07:28,240

passenger airplanes of the future

201
00:07:33,029 --> 00:07:31,120
we continued efforts on many fronts to

202
00:07:36,070 --> 00:07:33,039
develop new airframe and propulsion

203
00:07:38,870 --> 00:07:36,080
technologies for significantly quieter

204
00:07:40,950 --> 00:07:38,880
cleaner and more fuel-efficient aircraft

205
00:07:43,990 --> 00:07:40,960
with better passenger comfort

206
00:07:46,629 --> 00:07:44,000
we'll all benefit from aero's hard work

207
00:07:47,909 --> 00:07:46,639
i know that everything we do here is a

208
00:07:49,990 --> 00:07:47,919
team effort

209
00:07:52,469 --> 00:07:50,000
and that we weave in thousands of

210
00:07:53,270 --> 00:07:52,479
volunteers and citizens and all walks of

211
00:07:56,309 --> 00:07:53,280
life

212
00:07:59,430 --> 00:07:56,319
to carry out our mandate to innovate

213
00:08:01,110 --> 00:07:59,440

inspire and achieve big things

214

00:08:02,710 --> 00:08:01,120

whether that's the teachers who help

215

00:08:05,510 --> 00:08:02,720

make our first summer of innovation a

216

00:08:08,710 --> 00:08:05,520

success on which we can build and expand

217

00:08:10,950 --> 00:08:08,720

next year or the hundreds of you who fan

218

00:08:12,869 --> 00:08:10,960

out across the country to schools and

219

00:08:14,390 --> 00:08:12,879

community organizations through our

220

00:08:16,790 --> 00:08:14,400

speakers bureau

221

00:08:18,790 --> 00:08:16,800

or mentoring in our support of the first

222

00:08:20,710 --> 00:08:18,800

robotics program you

223

00:08:22,629 --> 00:08:20,720

are all important

224

00:08:24,950 --> 00:08:22,639

you are all making a worthwhile

225

00:08:27,110 --> 00:08:24,960

contribution not only to nasa

226

00:08:30,469 --> 00:08:27,120

but also to our national life and the

227

00:08:32,230 --> 00:08:30,479

health of our country so thank you again

228

00:08:34,149 --> 00:08:32,240

your work is excellent

229

00:08:36,630 --> 00:08:34,159

your skills are noticed and your

230

00:08:39,430 --> 00:08:36,640

accomplishments are appreciated

231

00:08:41,110 --> 00:08:39,440

as we celebrate this holiday season

232

00:08:43,670 --> 00:08:41,120

observed around the world by many

233

00:08:45,670 --> 00:08:43,680

religions and faiths but celebrated in

234

00:08:48,949 --> 00:08:45,680

some way by all

235

00:08:51,350 --> 00:08:48,959

i wish all of you traveling safe travels

236

00:08:54,630 --> 00:08:51,360

if you're gathering with families

237

00:08:57,430 --> 00:08:54,640

enjoy the warmth the friendship and the

238

00:08:59,350 --> 00:08:57,440

love of this wonderful season

239

00:09:01,190 --> 00:08:59,360

remember the members of our armed forces

240

00:09:04,470 --> 00:09:01,200

serving around the world particularly

241

00:09:06,150 --> 00:09:04,480

those serving in harm's way at this time

242

00:09:08,550 --> 00:09:06,160

they sacrifice

243

00:09:11,110 --> 00:09:08,560

that we may continue to live in relative

244

00:09:13,190 --> 00:09:11,120

comfort and enjoy the way of life

245

00:09:14,310 --> 00:09:13,200

characteristic of this great nation of

246

00:09:16,470 --> 00:09:14,320

ours

247

00:09:19,430 --> 00:09:16,480

season's greetings to you all

248

00:09:20,949 --> 00:09:19,440

may you all enjoy a prosperous new year

249

00:09:22,949 --> 00:09:20,959

working with you