



1
00:00:03,370 --> 00:00:16,540
>> President Obama: TODAY I'D
LIKE TO TALK ABOUT THE NEXT

2
00:00:16,540 --> 00:00:20,390
CHAPTER IN THE STORY.
WE WILL INCREASE EARTH-BASED

3
00:00:20,390 --> 00:00:24,820
OBSERVATIONS.
AND, WE WILL EXTEND THE LIFE OF

4
00:00:24,820 --> 00:00:31,040
THE INTERNATIONAL SPACE STATION.
WE WILL BUILD ON THE GOOD WORK

5
00:00:31,040 --> 00:00:39,210
ALREADY DONE ON THE ORION CREW
CAPSULE.

6
00:00:39,210 --> 00:00:41,579
>> President Obama: WE WILL
INCREASE INVESTMENT RIGHT AWAY

7
00:00:41,579 --> 00:00:43,499
IN OTHER GROUNDBREAKING
TECHNOLOGIES.

8
00:00:43,499 --> 00:00:50,620
WE WANT TO LEAP INTO THE FUTURE.
BY INVESTING IN GROUNDBREAKING

9
00:00:50,620 --> 00:00:53,410
RESEARCH AND INNOVATIVE
COMPANIES.

10
00:00:53,410 --> 00:00:58,320
WE ARE GOING TO MODERNIZE THE
KENNEDY SPACE CENTER, CREATING

11
00:00:58,320 --> 00:01:00,219
JOBS AS WE UPGRADE LAUNCH
FACILITIES.

12
00:01:00,219 --> 00:01:04,650
WE WILL PARTNER WITH INDUSTRY,
WE WILL INVEST IN CUTTING-EDGE

13
00:01:04,650 --> 00:01:08,470
RESEARCH AND TECHNOLOGY.
THE SPACE PROGRAM HAS FUELED

14
00:01:08,470 --> 00:01:13,490
JOBS IN ENTIRE INDUSTRIES AND IN
FULFILLING THIS TASK WE WILL NOT

15
00:01:13,490 --> 00:01:18,120
ONLY EXTEND HUMANITY'S REACH IN
SPACE, WE WILL STRENGTHEN

16
00:01:18,120 --> 00:01:34,300
AMERICA'S LEADERSHIP HERE ON
EARTH.

17
00:01:34,300 --> 00:01:50,080
[APPLAUSE]
>> GOOD MORNING AND WELCOME TO

18
00:01:50,080 --> 00:01:52,310
THE CENTER FOR AMERICAN
PROGRESS.

19
00:01:52,310 --> 00:01:56,750
AS WE DISCUSS THE FUTURE OF
HUMAN SPACE EXPLORATION WITH OUR

20
00:01:56,750 --> 00:02:00,070
SPECIAL GUEST, THE ADMINISTRATOR
OF NASA.

21
00:02:00,070 --> 00:02:03,680
THIS IS THE SECOND PROGRAM IN
THE SERIES ON SPACE EXPLORATION

22
00:02:03,680 --> 00:02:07,000
HERE AT C.A.P.
IN JUNE WE REMEMBERED ASTRONAUT

23
00:02:07,000 --> 00:02:10,759
ED WHITE ON THE 50th
ANNIVERSARY OF HIS HISTORIC WALK

24
00:02:10,759 --> 00:02:16,489
IN SPACE AND ITS IMPACT ON OUR
COUNTRY IN 1965.

25
00:02:16,489 --> 00:02:20,499
AS WE NOTED THEN, OUR PRIME
FOCUS IS LOOKING FORWARD INTO

26
00:02:20,499 --> 00:02:23,690
SPACE.
WHERE WE WILL GO, HOW WE WILL

27
00:02:23,690 --> 00:02:28,549
GET THERE, WHO WILL COME WITH
US, AND MAYBE WHO WE MIGHT MEET

28
00:02:28,549 --> 00:02:32,209
ALONG THE WAY.
THIS MORNING, THE C.A.P. WEBSITE

29
00:02:32,209 --> 00:02:36,290
HAS POSTED A COLUMN WRITTEN BY
OUR COLLEAGUE, PETER JUUL,

30
00:02:36,290 --> 00:02:41,579
FORGING A NEW CONSENSUS ON
AMERICA'S JOURNEY INTO SPACE.

31
00:02:41,579 --> 00:02:45,819
NASA ISSUED ITS REPORT "JOURNEY
TO MARS" PIONEERING NEXT STEPS

32
00:02:45,819 --> 00:02:49,900
IN SPACE EXPLORATION EARLIER
THIS MONTH.

33
00:02:49,900 --> 00:02:54,280
TO QUOTE THE REPORT, AS PIONEERS
WE WORK TO BLAZE THE TRAIL FOR

34
00:02:54,280 --> 00:02:56,889
OTHERS.
WE PIONEER SPACE TO DISCOVER

35
00:02:56,889 --> 00:03:02,999
LIFE, IDENTIFY RESOURCES, FOSTER
ECONOMIC GROWTH, INSPIRE AND

36
00:03:02,999 --> 00:03:07,779
EDUCATE, PROTECT OURSELVES FROM
SPACE-BASED THREATS, AND, LEAVE

37
00:03:07,779 --> 00:03:10,859
A BETTER FUTURE FOR THE NEXT
GENERATION.

38
00:03:10,859 --> 00:03:16,260
THE REPORT ADDED -- WHILE FAR
AWAY, MARS IS A GOAL WITHIN OUR

39
00:03:16,260 --> 00:03:19,549
REACH.
MARS ALSO FEATURED IN ANOTHER

40
00:03:19,549 --> 00:03:23,779
REPORT PREPARED FOR THE
PLANETARY SOCIETY THAT PRECEDED

41
00:03:23,779 --> 00:03:27,230
THIS NASA REPORT.
TO QUOTE THAT REPORT -- THE

42
00:03:27,230 --> 00:03:30,529
HUMAN EXPLORATION OF MARS IS
AFFORDABLE, MUCH OF THE

43
00:03:30,529 --> 00:03:34,489
NECESSARY TECHNOLOGY IS UNDER
DEVELOPMENT, AND LESSONS LEARNED

44
00:03:34,489 --> 00:03:37,829
FROM THE ROBOTIC MARS
EXPLORATION PROGRAM CAN BE

45
00:03:37,829 --> 00:03:40,879
APPLIED IN ORDER TO BUILD A
CONSISTENT POLITICALLY STABLE

46
00:03:40,879 --> 00:03:45,760
PROGRAM THAT SPANS DECADES.
TWO REPORTS, DIFFERENT

47
00:03:45,760 --> 00:03:49,150
PERSPECTIVES, BUT A COMMON
CONCLUSION.

48
00:03:49,150 --> 00:03:53,109
A HUMAN TRIP TO MARS IS WITHIN
OUR GRASP.

49
00:03:53,109 --> 00:03:56,799
WE ALSO BEGIN THIS PROGRAM TODAY
WITH THE RAREST OF COMMODITIES

50
00:03:56,799 --> 00:04:01,079
IN WASHINGTON.
A LITTLE BIT OF OPTIMISM.

51
00:04:01,079 --> 00:04:05,290
IT APPEARS THERE MAY BE A
TWO-YEAR BUDGET AGREEMENT THAT

52
00:04:05,290 --> 00:04:09,859
WILL MOVE THE CURRENT DEADLOCK
OF SEQUESTRATION AND DEBT

53
00:04:09,859 --> 00:04:15,120
CEILINGSES TO A GREATER
UNDERSTANDING OF OPPORTUNITY AT

54
00:04:15,120 --> 00:04:18,630
LEAST FOR A PERIOD LONG ENOUGH
TO CATCH OUR BREATH AND TO BE

55
00:04:18,630 --> 00:04:22,160
REMINDED THAT WHEN WE WORK
TOGETHER, BIG ACCOMPLISHMENTS

56
00:04:22,160 --> 00:04:25,250
ARE POSSIBLE.
LET ME OPEN THE DOOR FOR

57
00:04:25,250 --> 00:04:29,639
CONSENSUS, AN ELEMENT OF
DEMOCRACY THAT IS AS IMPORTANT

58
00:04:29,639 --> 00:04:34,720
AS OXYGEN IS FOR ASTRONAUTS.
ON EDUCATION, WE WANT TO ENSURE

59
00:04:34,720 --> 00:04:38,539
THAT THE NEXT GENERATION HAS THE
TOOLS TO PUSH THE BOUNDARY OF

60
00:04:38,539 --> 00:04:42,460
ACCOMPLISHMENT ON PLANET EARTH,
AND ON A FLIGHT TO MARS.

61
00:04:42,460 --> 00:04:47,220
AND, ON TECHNOLOGY AND
INNOVATION, TO FOSTER JOBS,

62
00:04:47,220 --> 00:04:51,530
OPPORTUNITY, AND LEADERSHIP ON
REACHING THE STARS AND IN THE

63
00:04:51,530 --> 00:04:55,129
PROCESS, MAKING LIVES BETTER IN
OUR CITIES AND TOWNS.

64
00:04:55,129 --> 00:05:00,629
TODAY, A NEW GENERATION OF
AMERICANS, SCIENTISTS,

65
00:05:00,629 --> 00:05:05,560
ENGINEERS, ASTRONAUT EXPLORERS,
NASA AND PRIVATE-SECTOR LEADERS,

66
00:05:05,560 --> 00:05:09,150
ARE LOOKING FOR THE CONSENSUS IN
COMMON AGREEMENT THAT WILL BRING

67
00:05:09,150 --> 00:05:12,770
THAT TRIP TO MARS WITHIN REACH.
THE TECHNICAL CHALLENGES

68
00:05:12,770 --> 00:05:16,050
INVOLVING GETTING ASTRONAUTS TO
MARS ARE DAUNTING.

69
00:05:16,050 --> 00:05:19,949
AND THE LONG-TERM PHYSICAL AND
PSYCHOLOGICAL EFFECTS ON SUCH A

70
00:05:19,949 --> 00:05:23,930
JOURNEY REMAIN UNCERTAIN.
BUT THE PROSPECTS FOR AMERICAN

71
00:05:23,930 --> 00:05:28,620
LEADERSHIP IN HUMAN EXPLORATION
BEYOND LOW-EARTH ORBIT ARE

72
00:05:28,620 --> 00:05:30,860
BRIGHTER THAN THEY HAVE BEEN FOR
DECADES.

73
00:05:30,860 --> 00:05:34,789
THE U.S. GOVERNMENT AND PRIVATE
COMPANIES ARE SLOWLY, BUT

74
00:05:34,789 --> 00:05:38,759
SURELY, PUTTING INTO PLACE MANY
OF THE CAPABILITIES NEEDED TO

75
00:05:38,759 --> 00:05:42,849
SEND HUMANS TO MARS.
HOWEVER, MANY CRITICAL QUESTIONS

76
00:05:42,849 --> 00:05:46,300
ARE STILL TO BE FRAMED.
TO DISCUSS THESE TOPICS THIS

77
00:05:46,300 --> 00:05:50,060
MORNING AT C.A.P., WE HAVE THE
ADMINISTRATOR OF THE NATIONAL

78
00:05:50,060 --> 00:05:54,220
AERONAUTICS AND SPACE
ADMINISTRATION, CHARLES BOLDEN

79
00:05:54,220 --> 00:05:56,100
JR.
WE ARE GLAD TO HAVE YOU HERE

80
00:05:56,100 --> 00:05:59,889
THIS MORNING.
HE IS A LEADER OF PARTICULAR

81
00:05:59,889 --> 00:06:03,810
ACCOMPLISHMENT, NAVAL ACADEMY,
MASTER OF SCIENCE UNIVERSITY OF

82
00:06:03,810 --> 00:06:06,800
SOUTHERN CALIFORNIA, I HAD TO
PUT THAT IN BECAUSE MY DAUGHTER

83
00:06:06,800 --> 00:06:13,300
IS A TROJAN UNDERGRADUATE RIGHT
NOW -- SO FIGHT ON -- UM, HE IS

84
00:06:13,300 --> 00:06:17,220
AN ASTRONAUT, MAJOR GENERAL
RETIRED UNITED STATES MARINE

85
00:06:17,220 --> 00:06:20,979
CORPS, 100 COMBAT MISSIONS IN
VIETNAM.

86
00:06:20,979 --> 00:06:26,500
DEPUTY COMMANDER OF U.S. FORCES
IN JAPAN, PILOT OF TWO SPACE

87
00:06:26,500 --> 00:06:30,720
SHUTTLE MISSIONS INCLUDING THE
DEPLOYMENT OF THE HUBBLE SPACE

88
00:06:30,720 --> 00:06:35,660
TELESCOPE, AND, COMMANDER OF TWO
MORE SHUTTLE MISSIONS, INCLUDING

89
00:06:35,660 --> 00:06:39,569
THE FIRST JOINT U.S. RUSSIA
SPACE SHUTTLE MISSION.

90
00:06:39,569 --> 00:06:43,180
AS THE ADMINISTRATOR OF NASA,
CHARLIE BOLDEN HAS LED THE

91
00:06:43,180 --> 00:06:48,080
AGENCY ON THE SPACE LAUNCH
SYSTEM AND THE ORION SPACE CRAFT

92
00:06:48,080 --> 00:06:53,160
FOR HUMAN DEEP-SPACE TRAVEL, NEW
APPROACHES ON ACQUISITIONS,

93
00:06:53,160 --> 00:06:56,960
PROTOTYPES TO PROVIDE U.S.
ASTRONAUTS AMERICAN ACCESS TO

94
00:06:56,960 --> 00:07:00,159
LOW-EARTH ORBIT.
AND, HIS TENURE INCLUDES THE

95
00:07:00,159 --> 00:07:06,990
CURIOSITY ROVER ROLLING ON MARS,
PROBES TO JUPITER, OUR FIRST

96
00:07:06,990 --> 00:07:10,460
CLOSE-UP ENCOUNTER WITH THE
PLANET PLUTO, AND THE LAUNCHING

97
00:07:10,460 --> 00:07:14,259
OF THE NEXT GENERATION WEB SPACE
TELESCOPE.

98
00:07:14,259 --> 00:07:18,440
IT'S A CONSIDERABLE RECORD OF
PUBLIC SERVICE AND MILITARY

99
00:07:18,440 --> 00:07:21,940
ACCOMPLISHMENT.
AND, SO PLEASE JOIN ME IN

100
00:07:21,940 --> 00:07:25,539
WELCOMING NASA ADMINISTRATOR
CHARLIE BOLDEN TO C.A.P., IN HIS

101

00:07:25,539 --> 00:07:29,099

TALK THIS MORNING.

[APPLAUSE]

102

00:07:29,099 --> 00:07:34,509

>> Mr. Bolden: GOOD MORNING,

THANK YOU VERY MUCH, RUDY AND

103

00:07:34,509 --> 00:07:38,509

PETER AND A SPECIAL THANKS TO

EVERYONE HERE AT THE CENTER FOR

104

00:07:38,509 --> 00:07:42,870

AMERICAN PROGRESS FOR ALLOWING

ME TO COME IN AND SHARE WITH YOU

105

00:07:42,870 --> 00:07:45,370

MY PERSPECTIVES ON THE FUTURE OF

HUMAN EXPLORATION.

106

00:07:45,370 --> 00:07:50,249

AND, FIRST THING I WOULD TELL

EVERYBODY IS -- RELAX, SIT BACK,

107

00:07:50,249 --> 00:07:55,139

TAKE A DEEP BREATH, I PROMISE I

WILL TRY NOT TO BORE YOU.

108

00:07:55,139 --> 00:07:58,530

WE DO HAVE Q. AND A. COMING UP

LATER SO YOU CAN COME AT ME IN

109

00:07:58,530 --> 00:08:01,770

ANY WAY YOU WANT.

THERE'S A FAMOUS STORY ABOUT THE

110

00:08:01,770 --> 00:08:06,979

GREEK PHILOSOPHER THALES.

ONE DAY HE'S WALKING ALONG

111

00:08:06,979 --> 00:08:11,689

LOOKING UP AT THE SKY,
MESMERIZED AT THE STARS, AND

112

00:08:11,689 --> 00:08:16,970

HE'S SO EXCITED, SO AMAZED, SO
TAKEN BY WHAT HE SEES ABOVE HIM,

113

00:08:16,970 --> 00:08:22,960

THAT HE WALKS RIGHT INTO A WELL.
IN A SENSE, THAT'S THE OLD WAY

114

00:08:22,960 --> 00:08:25,960

OF THINKING ABOUT SPACE AND
SPACE EXPLORATION.

115

00:08:25,960 --> 00:08:30,360

THAT SOMEHOW, GAZING UP AT THE
STARS OR THINKING ABOUT ALL THE

116

00:08:30,360 --> 00:08:35,000

POSSIBILITIES THE FUTURE HAS IN
STORE FOR US, DISTRACTS OR TAKES

117

00:08:35,000 --> 00:08:40,060

US AWAY FROM CARING ABOUT WHAT'S
GOING ON RIGHT HERE ON EARTH.

118

00:08:40,060 --> 00:08:43,899

OF THE THINGS I ADMIRE MOST
ABOUT MY BOSS, PRESIDENT OBAMA,

119

00:08:43,899 --> 00:08:45,779

IS THAT HE REJECTS THIS WAY OF
THINKING.

120

00:08:45,779 --> 00:08:49,480

I LIKE TO TELL PEOPLE HE CAN
WALK AND CHEW GUM.

121
00:08:49,480 --> 00:08:53,190
INSTEAD, HE BELIEVES THAT
STRONGLY THAT THE THINGS WE DO

122
00:08:53,190 --> 00:08:58,630
IN SPACE IMPROVE OUR QUALITY OF
LIFE HERE ON EARTH.

123
00:08:58,630 --> 00:09:03,431
MORE THAN FIVE YEARS AGO, APRIL
15, 2010, TO BE PRECISE, IN WHAT

124
00:09:03,431 --> 00:09:07,389
I CONSIDER TO BE A MAJOR SPACE
POLICY ADDRESS, HE OFFERED A

125
00:09:07,389 --> 00:09:10,610
PLATFORM FOR SPACE EXPLORATION
AT THE KENNEDY SPACE CENTER IN

126
00:09:10,610 --> 00:09:14,120
CAPE CANAVERAL, FLORIDA.
THE PRESIDENT TALKED ABOUT THE

127
00:09:14,120 --> 00:09:17,420
DUAL PURPOSE OF EXTENDING
HUMANITY'S PRESIDENT, FARTHER

128
00:09:17,420 --> 00:09:19,920
INTO THE UNIVERSE WHILE
STRENGTHENING AT THE VERY SAME

129
00:09:19,920 --> 00:09:23,720
TIME OUR COUNTRY'S LEADERSHIP
HERE ON EARTH.

130
00:09:23,720 --> 00:09:28,520
HE EXPLAINED THAT THESE GOALS
ARE REALLY ONE IN THE SAME.

131

00:09:28,520 --> 00:09:31,920

IN A RELATIVELY SHORT PERIOD OF
TIME, THE SPACE PROGRAM HAS

132

00:09:31,920 --> 00:09:36,040

REVOLUTIONIZED THE WAY WE
PRACTICED MEDICINE, INSULATE OUR

133

00:09:36,040 --> 00:09:39,130

HOUSES, PURIFY OUR WATER, WEAR
OUR EYE GLASSES, OBTAIN

134

00:09:39,130 --> 00:09:43,560

TELEVISION AND RADIO SIGNALS,
STAY SAFE ON OUR HIGHWAYS,

135

00:09:43,560 --> 00:09:47,410

PROTECT OUR FIREFIGHTERS.
FEED OUR BABIES, POWER OUR

136

00:09:47,410 --> 00:09:50,760

ELECTRICAL GRID, AND LIE DOWN
FOR A NIGHT'S SLEEP.

137

00:09:50,760 --> 00:09:54,250

THAT, OF COURSE, IS ONLY THE
SHORT LIST.

138

00:09:54,250 --> 00:09:58,940

BY THE WAY, DESPITE THE POPULAR
MISCONCEPTION, WE DON'T CLAIM

139

00:09:58,940 --> 00:10:05,100

ANY CREDIT FOR VELCRO OR TANG.
EXPLORATION HAS TAUGHT US MORE

140

00:10:05,100 --> 00:10:09,070

THAN WE HAVE EVER KNOWN ABOUT
OUR UNIVERSE AND OUR PLACE IN

141

00:10:09,070 --> 00:10:11,779

IT.
DATA AND IMAGERY FROM SATELLITES

142

00:10:11,779 --> 00:10:16,449

AND THE SPACE SCIENTIST WHO
INTERPRET THIS INFORMATION, HAVE

143

00:10:16,449 --> 00:10:20,420

EDUCATED US ABOUT OUR PLANET'S
CHANGING CLIMATE.

144

00:10:20,420 --> 00:10:23,190

THE INTERNATIONAL SPACE STATION,
WHICH I BELIEVE OUGHT TO BE

145

00:10:23,190 --> 00:10:27,480

CONSIDERED FOR A NOBEL PEACE
PRIZE, HAS ALREADY TAUGHT US

146

00:10:27,480 --> 00:10:32,660

ABOUT WHAT'S POSSIBLE WHEN TENS
OF THOUSANDS OF PEOPLE ACROSS 15

147

00:10:32,660 --> 00:10:35,250

COUNTRIES, COLLABORATE SO THAT
HUMAN BEINGS FROM DIFFERENT

148

00:10:35,250 --> 00:10:39,269

NATIONS CAN LIVE AND WORK IN
SPACE TOGETHER.

149

00:10:39,269 --> 00:10:42,670

YET, FOR ALL THESE
ACCOMPLISHMENTS, WHEN YOU

150

00:10:42,670 --> 00:10:46,490

CONSIDER THE POSSIBILITIES AHEAD
OF US, THERE'S REALLY ONLY ONE

151

00:10:46,490 --> 00:10:50,899

CONCLUSION THAT CAN BE REACHED.
WE ARE JUST GETTING STARTED.

152

00:10:50,899 --> 00:10:55,710

WHEN I THINK ABOUT AMERICAN
PROGRESS, I THINK, ACTUALLY,

153

00:10:55,710 --> 00:10:59,360

ABOUT MY THREE GRANDDAUGHTERS.
YOU SEE, I HAVE BEEN BLESSED IN

154

00:10:59,360 --> 00:11:02,250

MY LIFE, RICHLY BLESSED.
WHEN I GREW UP IN COLOMBIA,

155

00:11:02,250 --> 00:11:06,529

SOUTH CAROLINA, DURING THE DAYS
OF LEGAL SEGREGATION, BECAUSE OF

156

00:11:06,529 --> 00:11:10,329

THE COLOR OF MY SKIN, I HAD TO
FIGHT JUST TO BE CONSIDERED FOR

157

00:11:10,329 --> 00:11:12,810

APPOINTMENT TO THE UNITED STATES
NAVAL ACADEMY.

158

00:11:12,810 --> 00:11:18,360

I NEVER WOULD HAVE DREAMED THAT
I WOULD BE TALKING TO YOU TODAY,

159

00:11:18,360 --> 00:11:22,570

NOT JUST AS A 34-YEAR VETERAN OF
THE UNITED STATES MARINE CORPS,

160

00:11:22,570 --> 00:11:26,700

AND AN ASTRONAUT, BUT ALSO, AS
NASA ADMINISTRATOR SERVING UNDER

161

00:11:26,700 --> 00:11:30,230

OUR FIRST BLACK PRESIDENT.

I HAVE BEEN BLESSED TO BE ABLE

162

00:11:30,230 --> 00:11:33,870

TO TRAVEL TO NEARLY EVERY CORNER

OF OUR WORLD AND I HAVE BEEN

163

00:11:33,870 --> 00:11:37,850

BLESSED TO HAVE SEEN THE PLANET

FROM SPACE OVER THE COURSE OF

164

00:11:37,850 --> 00:11:41,980

FOUR SPACE SHUTTLE MISSIONS.

I CAN HONESTLY TELL YOU THAT OUT

165

00:11:41,980 --> 00:11:45,670

OF EVERYTHING I HAVE SEEN,

HOWEVER, THERE IS NOTHING, NOT A

166

00:11:45,670 --> 00:11:49,450

SINGLE THING, QUITE AS

AWE-INSPIRING AS BEING ABLE TO

167

00:11:49,450 --> 00:11:53,420

LOOK INTO THE EYES OF MY THREE

BEAUTIFUL GRANDDAUGHTERS,

168

00:11:53,420 --> 00:11:59,769

MIKAYLE, KIERA AND TALA.

TO ME, AMERICAN PROGRESS IS ALL

169

00:11:59,769 --> 00:12:02,860

ABOUT THE WORLD IN WHICH THEY

WILL GROW UP.

170

00:12:02,860 --> 00:12:06,170

THE WORLD WHERE THEY WILL SOME

DAY RAISE THEIR OWN CHILDREN AND

171

00:12:06,170 --> 00:12:08,740

GRANDCHILDREN.

WHEN WE TALK ABOUT OUR JOURNEY

172

00:12:08,740 --> 00:12:13,070

TO MARS, AND WHEN WE TALK ABOUT

THE NEXT GIANT LEAPS IN SPACE,

173

00:12:13,070 --> 00:12:16,800

EXPLORATION, WE ARE TALKING

ABOUT THEIR GENERATION.

174

00:12:16,800 --> 00:12:20,600

I LIKE TO REFER TO THIS

GENERATION AS THE SPACE

175

00:12:20,600 --> 00:12:23,000

GENERATION.

NOT ONLY BECAUSE OF THE PLACES

176

00:12:23,000 --> 00:12:26,940

THEY WILL GO BUT ALSO BECAUSE OF

THE EXPANSIVE WAY THEY LOOK AT

177

00:12:26,940 --> 00:12:29,540

OUR WORLD.

OUR UNIVERSE AND THE

178

00:12:29,540 --> 00:12:33,920

POSSIBILITIES THAT AWAIT THEM

BEYOND LIFE HERE ON EARTH.

179

00:12:33,920 --> 00:12:35,661

WHEN I HAVE TOLD MY

GRANDDAUGHTERS WE ARE ON A

180

00:12:35,661 --> 00:12:41,180

JOURNEY TO MARS, THEY ALWAYS ASK

ME -- WHY STOP THERE?

181

00:12:41,180 --> 00:12:45,320

IN BROADER TERMS, THAT'S THEIR
ATTITUDE TOWARD HUMANITY, TOWARD

182

00:12:45,320 --> 00:12:48,420

HUMAN POSSIBILITY, AND AMERICAN
PROGRESS.

183

00:12:48,420 --> 00:12:52,170

WHY STOP THERE?
EVERYTHING IS POSSIBLE.

184

00:12:52,170 --> 00:12:54,850

WITH THIS IN MIND, I WANT TO
TALK TO YOU JUST A LITTLE BIT

185

00:12:54,850 --> 00:12:59,839

TODAY ABOUT WHERE I BELIEVE WE
CAN BE HEADED AS A COUNTRY WHEN

186

00:12:59,839 --> 00:13:03,410

IT COMES TO SPACE EXPLORATION
AND TO EARTHLY BENEFITS THAT

187

00:13:03,410 --> 00:13:07,760

COME FROM IT.
TO PUT THIS INTO CONTEXT, IT'S

188

00:13:07,760 --> 00:13:12,300

WORTH JUST VERY BRIEFLY TO THINK
BACK TO THE EVENTS THAT BROUGHT

189

00:13:12,300 --> 00:13:16,260

US TO THIS PRESENT TIME.
PRESIDENTS SINCE DWIGHT

190

00:13:16,260 --> 00:13:20,670

EISENHOWER THAT FLOATED THE IDEA
OF GOING TO MARS.

191

00:13:20,670 --> 00:13:25,540

BUT IN FEBRUARY, ON FEBRUARY 1,
2003, TRAGEDY STRUCK FOR THE

192

00:13:25,540 --> 00:13:29,860

SECOND TIME WHEN WE LOST A SPACE
SHUTTLE COLOMBIA.

193

00:13:29,860 --> 00:13:33,180

AFTER GIVING THINGS A LONG, HARD
LOOK, THE COLOMBIA ACCIDENT

194

00:13:33,180 --> 00:13:36,361

INVESTIGATION BOARD MADE THE
RECOMMENDATION THAT THE SPACE

195

00:13:36,361 --> 00:13:39,370

SHUTTLE PROGRAM SHOULD BE PHASED
OUT.

196

00:13:39,370 --> 00:13:42,810

THE SHUTTLE HAD ALREADY HAD A
REMARKABLE THREE-DECADES-LONG

197

00:13:42,810 --> 00:13:46,370

RUN LIKE NO OTHER.
I TRAVELED TO SPACE FOUR TIMES

198

00:13:46,370 --> 00:13:50,519

ON THE SHUTTLE AND I CAN TELL
YOU THAT I LOVE THE SPACECRAFT.

199

00:13:50,519 --> 00:13:52,550

THERE'S NEVER BEEN A VEHICLE
QUITE LIKE IT.

200

00:13:52,550 --> 00:13:55,889

A RE-USEABLE SPACE CRAFT WITH
THE BEAUTY OF AN AIRPLANE,

201
00:13:55,889 --> 00:13:58,970
ACTUALLY THE WORLD'S LARGEST
GLIDER.

202
00:13:58,970 --> 00:14:03,050
AND THE CAPACITY TO CARRY EIGHT
ASTRONAUTS TO SPACE WITH A

203
00:14:03,050 --> 00:14:06,829
60-FOOT PAYLOAD BAY.
BUT, EVERY TECHNOLOGY EVOLVES

204
00:14:06,829 --> 00:14:11,699
OVER TIME AND, ALTHOUGH THIS WAS
A DECISION TO WHICH I DIDN'T

205
00:14:11,699 --> 00:14:15,709
ARRIVE LIGHTLY, I AGREED WITH
THEIR RECOMMENDATION.

206
00:14:15,709 --> 00:14:19,839
AS DID MANY IN THE SPACE
COMMUNITY AT THE TIME.

207
00:14:19,839 --> 00:14:22,860
PRESIDENT GEORGE W. BUSH AGREED,
AS WELL, AND HE MADE WHAT I

208
00:14:22,860 --> 00:14:26,579
BELIEVE WAS THE RIGHT DECISION
TO DIRECT THE PHASE-OUT OF THE

209
00:14:26,579 --> 00:14:29,940
SPACE SHUTTLE PROGRAM.
FAST FORWARD A FEW YEARS TO THE

210
00:14:29,940 --> 00:14:34,100
WINTER OF 2009.
UPON TAKING OFFICE, PRESIDENT

211

00:14:34,100 --> 00:14:37,160

OBAMA ASKED AN INDEPENDENT
COMMITTEE CHAIRED BY FORMER

212

00:14:37,160 --> 00:14:43,250

LOCKHEED C.E.O. NORM AUGUSTINE
TO REVIEW THE PLANS FOR SPICE

213

00:14:43,250 --> 00:14:45,720

FLIGHT.
THE COMMITTEE INCLUDED

214

00:14:45,720 --> 00:14:52,730

EDUCATORS, ENGINEERS, A RETIRED
AIR FORCE GENERAL -- PEOPLE AS

215

00:14:52,730 --> 00:14:55,860

DISTINGUISHED AS THE LATE SALLY
RIDE.

216

00:14:55,860 --> 00:14:59,509

THEIR FINDINGS QUITE FRANKLY,
WERE SOBERING.

217

00:14:59,509 --> 00:15:04,100

I QUOTE -- THE U.S. HUMAN
SPACE-FLIGHT PROGRAM APPEARS TO

218

00:15:04,100 --> 00:15:06,880

BE ON AN UNSUSTAINABLE
TRAJECTORY.

219

00:15:06,880 --> 00:15:09,529

UNQUOTE.
A FEW MONTHS AFTER THE REPORT'S

220

00:15:09,529 --> 00:15:14,079

RELEASE IN APRIL 2010, PRESIDENT
OBAMA CAME TO THE KENNEDY SPACE

221

00:15:14,079 --> 00:15:18,570

CENTER AND LAID OUT THE PLAN I
MENTIONED EARLIER.

222

00:15:18,570 --> 00:15:21,880

THIS PLAN THAT WOULD REPLACE
THIS UNSUSTAINABLE TRAJECTORY

223

00:15:21,880 --> 00:15:25,150

WITH A CLEAR, AFFORDABLE
FINANCIALLY SUSTAINABLE AND

224

00:15:25,150 --> 00:15:28,680

AMBITIOUS WAY FORWARD, A WAY
FORWARD THAT WOULD EXPAND OUR

225

00:15:28,680 --> 00:15:31,820

PRESENCE DEEPER INTO THE
UNIVERSE, WHILE STRENGTHENING

226

00:15:31,820 --> 00:15:34,990

OUR NATION'S LEADERSHIP HERE AT
HOME.

227

00:15:34,990 --> 00:15:38,279

THE PRESIDENT'S PLAN INCLUDED
RAMPING UP ROBOTIC EXPLORATION

228

00:15:38,279 --> 00:15:42,590

OF THE SOLAR SYSTEM, COMMITMENT
TO COMPLETING THE DEVELOPMENT OF

229

00:15:42,590 --> 00:15:47,190

THE JAMES WEBB SPACE TELESCOPE
TO BUILD ON HUBBLE'S LEGACY, AND

230

00:15:47,190 --> 00:15:50,639

AN INCREASE IN EARTH SCIENCE
MISSIONS THAT TEACH US ABOUT

231
00:15:50,639 --> 00:15:54,240
CLIMATE CHANGE.
AND HOW TO POTENTIALLY REVERSE

232
00:15:54,240 --> 00:15:57,310
ITS IMPACTS.
THE CENTERPIECE OF THE

233
00:15:57,310 --> 00:16:01,339
PRESIDENT'S PLAN WAS, AND IS, A
JOURNEY TO MARS THAT WILL

234
00:16:01,339 --> 00:16:05,290
CULMINATE WITH SENDING AMERICAN
ASTRONAUTS TO AN ASTEROID IN THE

235
00:16:05,290 --> 00:16:09,310
2020s AND THE RED PLANET IN
THE 2030s.

236
00:16:09,310 --> 00:16:13,110
TO COMPLETE THIS JOURNEY, THE
PLAN CONCENTRATES BOTH ON

237
00:16:13,110 --> 00:16:17,180
GETTING TO DEEP SPACE, AND, ON
EXTENDING THE LIFE OF THE

238
00:16:17,180 --> 00:16:21,149
INTERNATIONAL SPACE STATION IN
LOWER ORBIT ENABLED BY A ROBUST

239
00:16:21,149 --> 00:16:25,649
AND DEPENDABLE COMMERCIAL LAUNCH
SYSTEM FOR CARGO AND CREW.

240
00:16:25,649 --> 00:16:29,140
AND, AS A REPLACEMENT FOR THE
SPACE SHUTTLE.

241

00:16:29,140 --> 00:16:32,100

THE REASON THAT KEEPING THE
SPACE STATION OPERATIONAL IS SO

242

00:16:32,100 --> 00:16:36,070

IMPORTANT IS THAT IT ALLOWS OUR
ASTRONAUTS TO TEST THE

243

00:16:36,070 --> 00:16:39,560

TECHNOLOGIES THAT DRIVE
EXPLORATION.

244

00:16:39,560 --> 00:16:43,220

IT ALSO ALLOWS NASA TO CONTINUE
OUR STUDY OF THE EFFECTS OF LONG

245

00:16:43,220 --> 00:16:47,170

DURATIONS IN SPACE ON THE HUMAN
BODY.

246

00:16:47,170 --> 00:16:50,940

WHILE ALLOWING OUR ASTRONAUTS TO
CONTINUE TO WORK OFF THE EARTH

247

00:16:50,940 --> 00:16:54,980

FOR THE BENEFIT OF EARTH.
MEANWHILE, THE PRESIDENT CALLED

248

00:16:54,980 --> 00:16:58,470

FOR DEEPER COLLABORATION WITH
ENTREPRENEURS AND OTHER INDUSTRY

249

00:16:58,470 --> 00:17:02,170

PARTNERS ON DEVELOPING THE NEW
TECHNOLOGIES THAT THE MAMMOTH

250

00:17:02,170 --> 00:17:08,390

UNDERTAKING LIKE MARS REQUIRES.
THESE TECHNOLOGIES HAVE RESULTED

251

00:17:08,390 --> 00:17:13,150

IN MANY PLANNED AND UNEXPECTED
CAPABILITIES AND PRODUCTS.

252

00:17:13,150 --> 00:17:17,789

LIKE IMPROVED ARTIFICIAL LIMBS,
MEMORY FOAM, SOLAR PANELS AND SO

253

00:17:17,789 --> 00:17:20,650

MANY OTHER TECHNOLOGIES
ORIGINALLY DEVELOPED FOR THE

254

00:17:20,650 --> 00:17:25,449

SPACE PROGRAM THAT ALSO HAVE
INVALUABLE EARTHLY BENEFITS.

255

00:17:25,449 --> 00:17:30,130

OF COURSE, COLLABORATIONS SUCH
AS THESE ARE ALSO VALUABLE

256

00:17:30,130 --> 00:17:35,049

BECAUSE THEY CREATE JOBS AND
THEY FUEL OUR ECONOMY.

257

00:17:35,049 --> 00:17:37,990

FIVE YEARS AFTER THE PRESIDENT
CHALLENGED NASA TO SEND

258

00:17:37,990 --> 00:17:41,320

ASTRONAUTS TO MARS IN THE
2030s, WE ARE CLOSER TO

259

00:17:41,320 --> 00:17:45,280

SENDING HUMAN BEINGS TO THE RED
PLANET THAN EVER BEFORE IN HUMAN

260

00:17:45,280 --> 00:17:48,890

HISTORY.
MEANWHILE, A NEW CONSENSUS IS

261

00:17:48,890 --> 00:17:52,580

EMERGING IN THE SCIENTIFIC AND
POLICY COMMUNITIES AROUND NASA'S

262

00:17:52,580 --> 00:17:56,800

ROAD MAP AND TIMETABLE FOR
MAKING THIS HAPPEN.

263

00:17:56,800 --> 00:18:00,770

IN 2010 AT THE KENNEDY SPACE
CENTER, THE PRESIDENT STOOD IN

264

00:18:00,770 --> 00:18:04,309

FRONT OF A TEST MODEL OF THE
ORION SPACE CRAFT, THE

265

00:18:04,309 --> 00:18:07,610

TECHNOLOGICAL FOUNDATION FOR
FUTURE DEEP-SPACE MISSIONS.

266

00:18:07,610 --> 00:18:11,370

AND HE PLEDGED IT WOULD BE READY
FOR FLIGHT.

267

00:18:11,370 --> 00:18:15,659

TODAY, ORION HAS NOW FLOWN
FARTHER INTO SPACE THAN ANY

268

00:18:15,659 --> 00:18:19,140

SPACE CRAFT BUILT FOR HUMAN
PASSENGERS HAS FLOWN IN MORE

269

00:18:19,140 --> 00:18:22,080

THAN FOUR DECADES.
HAVING COMPLETED ITS HIGHLY

270

00:18:22,080 --> 00:18:27,110

SUCCESSFUL MAIDEN VOYAGE IN
DECEMBER, ON DECEMBER 5 LAST

271

00:18:27,110 --> 00:18:29,679

YEAR.

THE SPACE-LAUNCH SYSTEM ROCKET

272

00:18:29,679 --> 00:18:32,630

THAT WILL SOME DAY PROPEL

AMERICAN ASTRONAUTS TO DEEP

273

00:18:32,630 --> 00:18:35,789

SPACE, HAS MOVED FROM CONCEPT TO

DEVELOPMENT.

274

00:18:35,789 --> 00:18:39,240

AND IT'S HITTING CRITICAL

MILESTONES IN ITS CONSTRUCTION

275

00:18:39,240 --> 00:18:42,850

AND ASSEMBLY.

MEANWHILE, WE ARE MOVING FORWARD

276

00:18:42,850 --> 00:18:46,020

WITH AN ASTEROID REDIRECT

MISSION THAT WILL TEST NEW

277

00:18:46,020 --> 00:18:49,390

CAPABILITIES LIKE ADVANCE

PROPULSION SYSTEMS THAT WILL BE

278

00:18:49,390 --> 00:18:53,460

NEEDED FOR FUTURE HUMAN

EXPEDITIONS TO MARS.

279

00:18:53,460 --> 00:18:56,140

AFTER PLEDGING TO EXTEND THE

LIFE OF THE INTERNATIONAL SPACE

280

00:18:56,140 --> 00:18:59,770

STATION FOR FIVE YEARS, THE

PRESIDENT HAS NOW EXTENDED IT

281
00:18:59,770 --> 00:19:03,350
FOR 10.
TO AT LEAST 2024.

282
00:19:03,350 --> 00:19:06,490
AMERICAN ASTRONAUT SCOTT KELLY
IS HALFWAY THROUGH HIS YEAR IN

283
00:19:06,490 --> 00:19:09,520
SPACE AND WILL BE ABLE TO STUDY
THE EFFECTS OF SUCH

284
00:19:09,520 --> 00:19:13,789
LONG-DURATION MISSIONS AND TO
BENCH MARK THEM WITH HIS TWIN

285
00:19:13,789 --> 00:19:16,980
BROTHER, MARK, WHO IS BACK HERE
HOME ON EARTH.

286
00:19:16,980 --> 00:19:22,659
AND, IN CASE YOU DON'T FOLLOW US
-- SCOTT IS CURRENTLY OUTSIDE

287
00:19:22,659 --> 00:19:26,000
THE INTERNATIONAL SPACE STATION
CONDUCTING AN E.V.A. TO BRING IT

288
00:19:26,000 --> 00:19:29,960
UP TO SPEED AND MODERNIZE IT.
WE RECENTLY ANNOUNCED THAT OUR

289
00:19:29,960 --> 00:19:32,710
MARS RECOGNIZANCE ORBITER
CONFIRMED THE EXISTENCE OF

290
00:19:32,710 --> 00:19:36,480
FLOWING WATER ON MARS.
AND WE ARE ON PACE TO SEND A NEW

291

00:19:36,480 --> 00:19:41,059

ROVER TO THE RED PLANET IN 2020
THAT WILL HELP US PREPARE FOR

292

00:19:41,059 --> 00:19:44,850

HUMAN ARRIVAL.
FOR THE FIRST TIME EVER, IT WILL

293

00:19:44,850 --> 00:19:48,490

CACHE A SAMPLE FOR LATER RETURN
TO EARTH.

294

00:19:48,490 --> 00:19:52,400

MEANWHILE, OUR AMERICAN INDUSTRY
PARTNERS ARE NOW LAUNCHING CARGO

295

00:19:52,400 --> 00:19:55,590

MISSIONS TO THE INTERNATIONAL
SPACE STATION AND THEY ARE DOING

296

00:19:55,590 --> 00:19:59,230

IT FROM U.S. SOIL.
TO ACCOMPLISH THE PRESIDENT'S

297

00:19:59,230 --> 00:20:01,980

GOAL OF RETURNING THE LAUNCHES
OF AMERICAN ASTRONAUTS TO

298

00:20:01,980 --> 00:20:06,110

AMERICAN SOIL, WE HAVE SELECTED
OUR COMMERCIAL PARTNERS, BOEING

299

00:20:06,110 --> 00:20:10,330

AND SPACE-X, TO PRODUCE THEIR
RESPECTIVE CREW VEHICLES.

300

00:20:10,330 --> 00:20:14,490

THE C.S.T.-100 STAR LINER AND
THE CREW DRAGON.

301

00:20:14,490 --> 00:20:18,000

WE RECENTLY SELECTED OUR
COMMERCIAL CREW ASTRONAUTS.

302

00:20:18,000 --> 00:20:21,480

THE FIRST FOUR ASTRONAUTS TO
TRAIN TO FLY TO SPACE ON

303

00:20:21,480 --> 00:20:26,070

COMMERCIAL CARRIERS.
ROBERT BOB BENKIN, SONITA SONY

304

00:20:26,070 --> 00:20:30,370

WILLIAMS, ERIC BOWE AND DOUGLAS
DOUG HURLEY.

305

00:20:30,370 --> 00:20:33,880

ALL EXPERIENCED TEST PILOTS AND
SHUTTLE ASTRONAUTS.

306

00:20:33,880 --> 00:20:37,820

IN FACT, THEY MET WITH PRESIDENT
OBAMA AT THE WHITE HOUSE JUST

307

00:20:37,820 --> 00:20:41,830

LAST WEEK.
WHAT WE HAVEN'T YET BEEN ABLE TO

308

00:20:41,830 --> 00:20:46,080

DO IS SECURE ALL THE NECESSARY
FUNDING TO COMPLETE THE

309

00:20:46,080 --> 00:20:49,450

COMMERCIAL CREW PROGRAM.
HAD WE DONE SO WHEN THE

310

00:20:49,450 --> 00:20:52,710

PRESIDENT ORIGINALLY ASKED, WE
WOULD LIKELY BE PREPARING THIS

311

00:20:52,710 --> 00:20:57,290

YEAR FOR THOSE FIRST COMMERCIAL
LAUNCHES FROM CAPE CANAVERAL.

312

00:20:57,290 --> 00:20:59,790

AS THINGS STAND, WE WILL
CONTINUE TO BE IN A BIT OF A

313

00:20:59,790 --> 00:21:03,200

HOLDING PATTERN UNTIL WE GET THE
ADDITIONAL FUNDING THE PRESIDENT

314

00:21:03,200 --> 00:21:06,909

HAS BEEN REQUESTING.
BUT, I AM THE ETERNAL OPTIMIST.

315

00:21:06,909 --> 00:21:12,270

AND, LIKE RUDY, I BELIEVE WE
WILL COME TO TERMS WITH CONGRESS

316

00:21:12,270 --> 00:21:16,760

VERY SOON.
MAYBE IT'S JUST ME BUT I BELIEVE

317

00:21:16,760 --> 00:21:19,610

THAT THE GREATEST COUNTRY ON
EARTH SHOULDN'T BE SOLELY

318

00:21:19,610 --> 00:21:24,679

RELIANT ON OTHER COUNTRIES TO
GET OUR OWN ASTRONAUTS TO SPACE.

319

00:21:24,679 --> 00:21:30,330

I SHOULD NOTE THAT THERE ARE 350
COMPANIES WORKING ACROSS 35

320

00:21:30,330 --> 00:21:34,070

STATES TOWARD THE GOAL OF
BRINGING THESE LAUNCHES HOME.

321

00:21:34,070 --> 00:21:38,200

SO, THERE'S A LOT AT STAKE, NOT
ONLY IN TERMS OF DISCOVERY AND

322

00:21:38,200 --> 00:21:43,059

EXPLORATION, BUT ALSO IN TERMS
OF JOB CREATION, GROWTH, AND

323

00:21:43,059 --> 00:21:46,350

OPPORTUNITY.
ACROSS THE BOARD, OUR COUNTRY'S

324

00:21:46,350 --> 00:21:50,570

NEW TECHNOLOGY ECONOMY IS
DRIVING ECONOMIC GROWTH AND,

325

00:21:50,570 --> 00:21:53,779

NASA'S WORK IS PROVIDING
SIGNIFICANT FUEL FOR THAT

326

00:21:53,779 --> 00:21:56,870

ENGINE.
WE ARE EXPLORING DEEP SPACE, BUT

327

00:21:56,870 --> 00:22:01,370

WE ARE ANCHORED RIGHT HERE ON
EARTH WHERE WE ARE CREATING JOBS

328

00:22:01,370 --> 00:22:03,990

AND FUELING INNOVATION AND
GROWTH.

329

00:22:03,990 --> 00:22:07,179

RECOGNIZING THAT WITHOUT
AMERICAN INGENUITY AND

330

00:22:07,179 --> 00:22:12,170

INNOVATION, WE WOULD BE RIGHT
THERE IN THALES' WELL.

331

00:22:12,170 --> 00:22:15,940

ASIDE FROM ALL THESE MEASURES OF
ECONOMIC, SCIENTIFIC AND

332

00:22:15,940 --> 00:22:19,650

TECHNICAL PROGRESS, WE HAVE ALSO
BEEN ABLE TO START TO DO

333

00:22:19,650 --> 00:22:24,570

SOMETHING ELSE AND THAT'S -- TO
BREAK THROUGH TO THE PUBLIC'S

334

00:22:24,570 --> 00:22:26,860

CONSCIOUSNESS.
YOU PLAY A CRITICAL ROLE IN THAT

335

00:22:26,860 --> 00:22:31,300

AND, FOR YOUR WORK TODAY, WE ARE
INCREDIBLY GRATEFUL.

336

00:22:31,300 --> 00:22:34,279

WHETHER IT'S THE PUBLICITY AND
THE EXCITEMENT THAT SURROUNDED

337

00:22:34,279 --> 00:22:37,919

THE NEW HORIZON'S ENCOUNTER WITH
PLUTO THIS PAST SUMMER AND THE

338

00:22:37,919 --> 00:22:42,059

PLUTO MANIA THAT FOLLOWED, OUR
RECENT CONFIRMATION OF FLOWING

339

00:22:42,059 --> 00:22:46,510

WATER ON MARS OR THE NEW MARS
ENTHUSIASTS WHO FLOCKED TO THE

340

00:22:46,510 --> 00:22:50,159

MOVIES, LIKE ME, TO SEE THE
MARTIAN.

341

00:22:50,159 --> 00:22:54,440

THERE'S A TANGIBLE SENSE I GETS
A I TRAVEL AND MEET FOLKS THAT

342

00:22:54,440 --> 00:22:59,680

NASA IS IN VOGUE RIGHT NOW.
THERE'S A COOLNESS FACTOR.

343

00:22:59,680 --> 00:23:02,950

AND, WHEN YOU ARE SEEKING TO
CAPTURE THE PUBLIC'S HEARTS,

344

00:23:02,950 --> 00:23:07,550

MINDS AND, ABOVE ALL,
IMAGINATION, THOSE THINGS REALLY

345

00:23:07,550 --> 00:23:11,790

MAKE A DIFFERENCE.
NOW, WITH ALL THIS SAID, SOME OF

346

00:23:11,790 --> 00:23:15,580

YOU -- AND I ACTUALLY HOPE IT'S
NOT TOO MANY OF YOU, JUST A FEW

347

00:23:15,580 --> 00:23:20,490

OF YOU, BUT SOME OF YOU -- MIGHT
BE ASKING, OK, BUT -- WHY DOES

348

00:23:20,490 --> 00:23:23,390

ALL THIS MATTER?
WHY GO TO MARS?

349

00:23:23,390 --> 00:23:26,690

SO -- THIS BRINGS ME TO MY
OPPORTUNITY TO DO A LITTLE

350

00:23:26,690 --> 00:23:28,909

AUDIENCE PARTICIPATION.
THIS IS THE AUDIENCE

351

00:23:28,909 --> 00:23:30,950

PARTICIPATION PART OF MY
PROGRAM.

352

00:23:30,950 --> 00:23:34,730

WHEN I POINT TO YOU THE AUDIENCE
I WANT YOU TO REPEAT AFTER ME

353

00:23:34,730 --> 00:23:37,179

MARS MATTERS.
OK?

354

00:23:37,179 --> 00:23:40,960

WHEN I POINT TO YOU, JUST
REPEAT, IN WHATEVER VOICE YOU

355

00:23:40,960 --> 00:23:43,460

WANT, MARS MATTERS.
SO GET THE GRUMPY LOOKS OFF SOME

356

00:23:43,460 --> 00:23:46,440

OF YOUR FACES, SMILE AND SAY
MARS MATTERS.

357

00:23:46,440 --> 00:23:48,249

YOU READY?
PRACTICE.

358

00:23:48,249 --> 00:23:51,070

>> MARS MATTERS.
>> ALL RIGHT! BECAUSE ITS

359

00:23:51,070 --> 00:23:54,789

FORMULATION AND EVOLUTION ARE
COMPARABLE TO EARTH -- MARS

360

00:23:54,789 --> 00:23:58,270

MATTERS.
BECAUSE WE KNOW THAT AT ONE TIME

361

00:23:58,270 --> 00:24:00,039

IT HAD CONDITIONS SUITABLE FOR
LIFE --

362

00:24:00,039 --> 00:24:03,710

>> MARS MATTERS.
>> BECAUSE WHAT WE LEARN ABOUT

363

00:24:03,710 --> 00:24:07,210

THE RED PLANET MAY TELL US MORE
ABOUT OUR OWN HOME PLANET'S

364

00:24:07,210 --> 00:24:11,440

HISTORY AND FUTURE, AND BECAUSE
IT MIGHT JUST HELP US UNRAVEL

365

00:24:11,440 --> 00:24:16,040

THE AGE-OLD MYSTERY ABOUT
WHETHER LIFE EXISTS BEYOND EARTH

366

00:24:16,040 --> 00:24:17,040

--
>> MARS MATTERS.

367

00:24:17,040 --> 00:24:21,620

>> Y'ALL ARE GOOD.
I NEED TO TAKE YOU BACK WITH ME.

368

00:24:21,620 --> 00:24:24,299

WHEN I THINK THE WORLD IN WHICH
MY GRANDDAUGHTERS WILL BE

369

00:24:24,299 --> 00:24:28,669

RAISING THEIR OWN CHILDREN, I
SEE A WORLD WHERE THEIR KIDS

370

00:24:28,669 --> 00:24:32,640

VIEW HUMAN BEINGS LIVING AND
WORKING ON MARS, AS A FACT OF

371

00:24:32,640 --> 00:24:35,320

LIFE.

MUCH AS THEY VIEW LIVING AND

372

00:24:35,320 --> 00:24:38,520

WORKING ON THE INTERNATIONAL
SPACE STATION TODAY.

373

00:24:38,520 --> 00:24:41,990

A FUTURE WHERE NASA AND ITS
INTERNATIONAL PARTNERS ARE USING

374

00:24:41,990 --> 00:24:46,510

MARS AS A STEPPING STONE TO THE
REST OF THE SOLAR SYSTEM.

375

00:24:46,510 --> 00:24:50,330

I SEE A FUTURE WHERE A ROBUST
PRIVATE SPACE INDUSTRY IS

376

00:24:50,330 --> 00:24:54,490

LAUNCHING HUMAN BEINGS, CARGO,
AND SATELLITES OF ALL SIZES, TO

377

00:24:54,490 --> 00:24:58,159

SPACE AT A SIGNIFICANTLY LOWER
PRICE POINT.

378

00:24:58,159 --> 00:25:00,690

THANKS TO THE WORK WE ARE DOING
TODAY TO MAKE LAUNCHES MORE

379

00:25:00,690 --> 00:25:03,860

AFFORDABLE, AND TO ADVANCE
EMERGING SMALL SATELLITE

380

00:25:03,860 --> 00:25:10,740

TECHNOLOGIES LIKE QUB SATES AND
NANO SATES, WHERE COMPANIES

381

00:25:10,740 --> 00:25:14,620

UTILIZE TECHNOLOGIES DEVELOPED
FOR SPACE TRAVEL TO DEVELOP A

382

00:25:14,620 --> 00:25:17,840

PRODUCT THAT IMPROVES OUR
QUALITY OF LIFE RIGHT HERE ON

383

00:25:17,840 --> 00:25:20,799

EARTH.
A FUTURE WHERE FLYING FROM

384

00:25:20,799 --> 00:25:24,440

WASHINGTON TO LOS ANGELES IS A
BETTER EXPERIENCE BOTH FOR

385

00:25:24,440 --> 00:25:27,380

PEOPLE IN THE PLANE, AND ON THE
GROUND.

386

00:25:27,380 --> 00:25:30,730

BECAUSE, WE HAVE SUCCEEDED IN
REIMAGINING AIR TRAFFIC

387

00:25:30,730 --> 00:25:35,890

MANAGEMENT, AND WE HAVE MADE
FLIGHT CLEANER, GREENER, SAFER,

388

00:25:35,890 --> 00:25:38,590

AND QUIETER.
AND, BY FLIGHT, I MEAN BOTH

389

00:25:38,590 --> 00:25:42,029

AIRPLANES AND HELICOPTERS.
I SEE A FUTURE WHERE OUR

390

00:25:42,029 --> 00:25:45,279

GRANDCHILDREN'S CHILDREN ARE
DRINKING CLEANER WATER.

391

00:25:45,279 --> 00:25:48,750

BREATHING CLEANER AIR.
AND MAKING USE OF CLEANER

392

00:25:48,750 --> 00:25:51,170

ENERGY.
NOT ONLY BECAUSE NASA HAS HELPED

393

00:25:51,170 --> 00:25:54,370

US BETTER UNDERSTAND CLIMATE
CHANGE, BUT BECAUSE OF THE WORK

394

00:25:54,370 --> 00:25:58,240

OUR SCIENTISTS ARE DOING IN
AREAS LIKE GREEN AVIATION, AND

395

00:25:58,240 --> 00:26:01,370

WATER PURIFICATION.
I SEE A FUTURE WHERE FEWER

396

00:26:01,370 --> 00:26:05,430

AMERICANS ARE LOSING A SISTER OR
BROTHER OR A SON BECAUSE THE

397

00:26:05,430 --> 00:26:09,200

MEDICAL TECHNOLOGIES WE PERFECT
TO PROTECT OUR ASTRONAUTS FROM

398

00:26:09,200 --> 00:26:13,279

EXPOSURE TO RADIATION ON A
LONG-DURATION SPACE FLIGHT HELP

399

00:26:13,279 --> 00:26:16,620

REVOLUTIONIZE MEDICINE IN THE
MEDICAL FIELD.

400

00:26:16,620 --> 00:26:20,110

OR, BECAUSE THE TECHNOLOGIES WE
HAVE DEVELOPED TO DETECT SIGNS

401

00:26:20,110 --> 00:26:23,500

OF LIFE ON OTHER PLANETS
CONTINUE TO HELP EMERGENCY

402

00:26:23,500 --> 00:26:27,800

WORKERS LISTEN FOR BEATING
HEARTS IN THE RUBBLE AFTER A

403

00:26:27,800 --> 00:26:30,270

DISASTER.
AS WAS DONE WITH THE FINDER

404

00:26:30,270 --> 00:26:34,049

DEVICE AFTER THIS PAST SUMMER'S
CATASTROPHIC EARTHQUAKE IN

405

00:26:34,049 --> 00:26:37,340

NEPAL.
I SEE A WORLD WHERE GIRLS AND

406

00:26:37,340 --> 00:26:41,390

YOUNG PEOPLE OF COLOR ARE MORE
EXCITED ABOUT PURSUING EDUCATION

407

00:26:41,390 --> 00:26:46,340

IN SCIENCE, TECHNOLOGY,
ENGINEERING, THE ARTS, AND MATH.

408

00:26:46,340 --> 00:26:50,040

A WORLD WHERE UNLIKE TODAY,
THERE WILL NO LONGER BE ANY

409

00:26:50,040 --> 00:26:54,210

STATES IN THE UNION WHERE NO
WOMAN TAKES THE ADVANCED

410

00:26:54,210 --> 00:26:58,180

PLACEMENT A.P. COMPUTER SCIENCE
EXAM AS WE HAVE TODAY.

411

00:26:58,180 --> 00:27:01,970

THANKS IN PART TO NASA'S WORK TO
PROMOTE STEM EDUCATION AND

412

00:27:01,970 --> 00:27:05,559

CAREERS.

I SEE A FUTURE WHERE PEOPLE IN

413

00:27:05,559 --> 00:27:10,169

EVEN THE MOST REMOTE CORNERS OF
OUR WORLD HAVE ACCESS TO WIFI.

414

00:27:10,169 --> 00:27:15,010

AS DO ASTRONAUTS LIVING AND
WORKING IN SPACE TODAY.

415

00:27:15,010 --> 00:27:18,490

I SEE A WORLD WHERE THE STUNNING
IMAGES BEING SENT HOME TO US

416

00:27:18,490 --> 00:27:21,360

FROM THE JAMES WEBB SPACE
TELESCOPE TEACH MY

417

00:27:21,360 --> 00:27:25,830

GRANDDAUGHTERS AND THEIR KIDS
MORE ABOUT OUR UNIVERSE THAN HAS

418

00:27:25,830 --> 00:27:30,309

EVER BEEN KNOWN BEFORE OR
CONCEPTUALIZED.

419

00:27:30,309 --> 00:27:34,540

I SEE A FUTURE WHERE MAYBE, JUST
MAYBE, HUMANITY FINDS THE ANSWER

420

00:27:34,540 --> 00:27:38,179

TO THE AGE-OLD QUESTION, A
QUESTION THAT PTHALES MUST HAVE

421

00:27:38,179 --> 00:27:43,110

THOUGHT TO HIMSELF AS HE STAIRED
UP AT THE NIGHT SKY, OF WHETHER

422

00:27:43,110 --> 00:27:47,620

WE ARE ALONE IN THE UNIVERSE.
WHILE NONE OF US CAN KNOW FOR

423

00:27:47,620 --> 00:27:51,340

SURE WHAT THE FUTURE HAS IN
STORE, THERE IS ONE THING THAT

424

00:27:51,340 --> 00:27:54,370

WE CAN SAY WITH A GOOD DEGREE OF
CERTAINTY.

425

00:27:54,370 --> 00:27:58,410

NONE OF THESE THINGS CAN HAPPEN
ON THEIR OWN.

426

00:27:58,410 --> 00:28:00,930

THEY WILL REQUIRE FUTURE LEADERS
TO CONTINUE TO MAKE THE

427

00:28:00,930 --> 00:28:04,760

DECISIONS THAT POINT US IN THIS
DIRECTION.

428

00:28:04,760 --> 00:28:08,340

FUTURE PRESIDENTS, FUTURE
ADMINISTRATORS, AND FUTURE

429

00:28:08,340 --> 00:28:12,610

CITIZENS LIKE YOU.
PRESIDENT OBAMA HAS SET US ON A

430

00:28:12,610 --> 00:28:17,279

VISIONARY COURSE.
IT'S MY SINCERE HOPE THAT FUTURE

431

00:28:17,279 --> 00:28:20,190

LEADERS FROM ALL SIDES OF THE
POLITICAL SPECTRUM SEE IT

432

00:28:20,190 --> 00:28:22,990

THROUGH.
BECAUSE, I TRULY BELIEVE THE

433

00:28:22,990 --> 00:28:27,059

SORT OF FUTURE I LAID OUT IS
WELL WITHIN OUR GRASP.

434

00:28:27,059 --> 00:28:30,929

RIGHT NOW, THE ASTRONAUT WHO
WILL TAKE THE FIRST HUMAN STEPS

435

00:28:30,929 --> 00:28:34,909

ON MARS AND THE SCIENTISTS WHO
WILL DISCOVER THE NEXT GREAT

436

00:28:34,909 --> 00:28:38,290

BREAKTHROUGH THAT MAKES THAT
STEP POSSIBLE, MIGHT VERY WELL

437

00:28:38,290 --> 00:28:42,260

BE SITTING IN A CLASSROOM RIGHT
HERE IN WASHINGTON D.C.

438

00:28:42,260 --> 00:28:46,220

EVERY CHOICE THAT SHE OR HE
MAKES TO SPEND THAT EXTRA HALF

439

00:28:46,220 --> 00:28:50,770

HOUR IN THE LIBRARY OR TO SIGN
UP FOR THAT EXTRA ELECTIVE, OR

440

00:28:50,770 --> 00:28:54,710

FRANKLY, TO PICK UP A GUITAR OR
A PAINT BRUSH FOR THE VERY FIRST

441

00:28:54,710 --> 00:28:59,210

TIME, ALL THESE CHOICES BRING US
CLOSER TO THE FUTURE THAT WE ALL

442

00:28:59,210 --> 00:29:05,049

DREAM IT IS AND CAN BE POSSIBLE.
YOU KNOW, I HAD A GOOD FRIEND

443

00:29:05,049 --> 00:29:07,210

WHO GAVE HER LIFE TO THE CAUSE
OF HUMAN EXPLORATION.

444

00:29:07,210 --> 00:29:11,710

HER NAME WAS CHRISTA MCAULLIFE,
AND SHE ONCE SAID AND I

445

00:29:11,710 --> 00:29:16,399

APPRECIATE THIS AS THE SON OF
TEACHERS, THAT TEACHING ALLOWED

446

00:29:16,399 --> 00:29:20,620

HER TO TOUCH THE FUTURE.
I BELIEVE THAT WE ARE AT A

447

00:29:20,620 --> 00:29:25,070

TEACHABLE MOMENT WHEN IT COMES
TO THE FUTURE OF EXPLORATION.

448

00:29:25,070 --> 00:29:27,799

THE QUESTION IS -- WHAT ARE
REGOING TO DO WITH IT?

449

00:29:27,799 --> 00:29:31,860

WHAT ARE WE GOING TO DO WITH IT?
ARE WE GOING TO SEIZE THIS

450

00:29:31,860 --> 00:29:35,190

MOMENT AND USE IT TO TOUCH THE
FUTURE?

451

00:29:35,190 --> 00:29:39,260

I HOPE THE ANSWER IS YES.

AND, I WANT TO THANK EVERY ONE

452

00:29:39,260 --> 00:29:43,100

AT THE CENTER FOR AMERICAN

PROGRESS FOR DOING YOUR PART TO

453

00:29:43,100 --> 00:29:47,870

MAKE US HELP, TO HELP US TO

SEIZE THE MOMENT AND MAKE THE

454

00:29:47,870 --> 00:29:50,940

ANSWER -- YES.

I LOOK FORWARD TO YOUR

455

00:29:50,940 --> 00:29:53,669

DISCUSSION AND THANK YOU SO VERY

MUCH AGAIN FOR ALLOWING ME TO BE