



## FIRSTinspires13

Oklahoma Regional

playing Science & Technology for 64 viewers

LIVE



20  
min



1  
00:00:01,534 --> 00:00:04,237  
(bright, shining musical note)

2  
00:00:04,304 --> 00:00:06,806  
- [Controller] Ignition sequence  
start.

3  
00:00:06,873 --> 00:00:09,909  
- [Controller 2] Roger.  
All engines are running.

4  
00:00:09,976 --> 00:00:12,379  
- [Narrator] We have  
taken tremendous steps.

5  
00:00:12,445 --> 00:00:16,583  
- We choose to go to the Moon,  
before this decade is out.

6  
00:00:16,649 --> 00:00:19,252  
- [Narrator] We have  
achieved the earth-shaking,

7  
00:00:19,319 --> 00:00:21,921  
the breathtaking, the  
groundbreaking.

8  
00:00:21,988 --> 00:00:24,023  
- [Astronaut] One small step for  
man.

9  
00:00:24,090 --> 00:00:26,226  
- [Narrator] And left  
a mark in the heavens.

10  
00:00:26,292 --> 00:00:29,262  
Our successes build one upon  
another,

11

00:00:29,329 --> 00:00:32,198  
and amplify what is possible.

12

00:00:32,265 --> 00:00:33,466  
- [Announcer] The dawn of Orion.

13

00:00:33,533 --> 00:00:36,336  
- [Narrator] It's time we  
take the next great leap.

14

00:00:37,737 --> 00:00:41,341  
We're building the next chapter  
of American exploration,

15

00:00:41,408 --> 00:00:44,611  
returning to the Moon, to stay.

16

00:00:44,677 --> 00:00:47,914  
So we can go beyond, to Mars.

17

00:00:47,981 --> 00:00:51,551  
To expand what's possible,  
and further our understanding.

18

00:00:54,154 --> 00:00:57,924  
The architecture for these  
missions is already taking  
shape.

19

00:00:57,991 --> 00:01:01,828  
We will go with new systems,  
bold designs,

20

00:01:01,895 --> 00:01:03,930  
and a sustainable mission.

21

00:01:03,997 --> 00:01:06,699  
You can hear it, taste it, touch  
it.

22

00:01:06,766 --> 00:01:08,334

We are going.

23

00:01:09,369 --> 00:01:12,238

We are training, testing,  
pressing,

24

00:01:12,305 --> 00:01:15,375

our pioneering spirit  
into every component.

25

00:01:15,442 --> 00:01:18,912

Defining our resolve  
with every line of code.

26

00:01:18,978 --> 00:01:23,016

And securing our success with  
every welcomed partnership.

27

00:01:24,384 --> 00:01:26,486

This is not hypothetical.

28

00:01:26,553 --> 00:01:29,622

This is not about flags and  
footprints.

29

00:01:29,689 --> 00:01:32,358

This is about sustainable  
science,

30

00:01:32,425 --> 00:01:36,429

and feeding forward the  
advance of the human spirit.

31

00:01:37,430 --> 00:01:41,468

Because we are the  
pioneers, the star-sailors,

32

00:01:41,534 --> 00:01:45,405

the thinkers, the visionaries,  
the doers.

33

00:01:45,472 --> 00:01:48,675

And because we stand on  
the shoulders of giants,

34

00:01:48,741 --> 00:01:51,845

to go farther than humanity has  
ever been.

35

00:01:52,745 --> 00:01:54,848

We will add our names to the  
rolls

36

00:01:54,914 --> 00:01:58,184

of the greatest adventurers in  
history.

37

00:01:59,419 --> 00:02:04,357

Every day, every mission,  
we advance this calling.

38

00:02:06,025 --> 00:02:08,862

WE. ARE. NASA.

39

00:02:09,796 --> 00:02:12,799

And after 60 years, we're  
just getting started.

40

00:02:13,566 --> 00:02:16,669

(dramatic drumbeats)

41

00:02:19,405 --> 00:02:20,673

[CHEERING]

42

00:02:20,740 --> 00:02:22,609

>> WHOO!

43

00:02:22,675 --> 00:02:26,646  
NOW EVERYONE PLEASE WELCOME NASA

44  
00:02:26,713 --> 00:02:28,414  
ADMINISTRATOR JIM BRIDENSTINE.

45  
00:02:28,481 --> 00:02:30,583  
>> THANK YOU!

46  
00:02:30,650 --> 00:02:36,923  
I SEE THE TEAM STANDING FOR AN

47  
00:02:36,990 --> 00:02:37,257  
ALUMNI.

48  
00:02:37,323 --> 00:02:39,726  
I HAVE NO FAVORITES IN TODAY'S

49  
00:02:39,792 --> 00:02:40,126  
COMPETITION.

50  
00:02:40,193 --> 00:02:46,366  
ALTHOUGH I DID GRADUATE FROM THE

51  
00:02:46,432 --> 00:02:46,833  
HIGH SCHOOL.

52  
00:02:46,900 --> 00:02:49,569  
YOU ARE GETTING WAY TOO MUCH

53  
00:02:49,636 --> 00:02:50,069  
ATTENTION TODAY.

54  
00:02:50,136 --> 00:02:51,070  
JUST KNOW THIS, EVERYBODY IN

55  
00:02:51,137 --> 00:02:54,173  
THIS ROOM TODAY HAS AN

56  
00:02:54,240 --> 00:02:56,242  
OPPORTUNITY TO BE PART OF SOME

57  
00:02:56,309 --> 00:02:57,544  
MAGNIFICENT, WHICH IS WHAT WE

58  
00:02:57,610 --> 00:02:58,011  
JUST SAW.

59  
00:02:58,077 --> 00:03:01,080  
THE FUTURE REQUIRES US TO HAVE

60  
00:03:01,147 --> 00:03:04,551  
THE BEST ENGINEERS, THE BEST

61  
00:03:04,617 --> 00:03:06,019  
TECHNICIANS, THE BEST

62  
00:03:06,085 --> 00:03:06,419  
SCIENTISTS.

63  
00:03:06,486 --> 00:03:08,688  
IT IS IN OUR NATIONAL SECURITY

64  
00:03:08,755 --> 00:03:09,923  
INTEREST.

65  
00:03:09,989 --> 00:03:12,292  
IT IS IN THE INTEREST OF THE

66  
00:03:12,358 --> 00:03:13,760  
SECURITY OF THE COUNTRY THAT ALL

67  
00:03:13,826 --> 00:03:14,727  
OF US LOVE.

68

00:03:14,794 --> 00:03:17,230  
THAT'S WHY NASA IS A SPONSOR OF

69  
00:03:17,297 --> 00:03:17,630  
THIS EVENT.

70  
00:03:17,697 --> 00:03:20,600  
THAT'S WHY NAS RIGHT NOW -- NAS

71  
00:03:20,667 --> 00:03:28,007  
RIGHT NOW PUTS 4.1 ANNUALLY IN

72  
00:03:28,074 --> 00:03:30,677  
ROBOTICS AND HAVE BEEN

73  
00:03:30,743 --> 00:03:32,078  
SPONSORING THIS EVENT SINCE

74  
00:03:32,145 --> 00:03:33,012  
1995.

75  
00:03:33,079 --> 00:03:36,716  
[APPLAUDING]

76  
00:03:36,783 --> 00:03:40,253  
WE PROVIDE MENTORSHIPS WITH

77  
00:03:40,320 --> 00:03:41,721  
ENGINEERING AND PROVIDE DOLLARS

78  
00:03:41,788 --> 00:03:43,823  
BECAUSE YOU IN THIS ROOM ARE THE

79  
00:03:43,890 --> 00:03:46,793  
FUTURE OFURE ACCIDENT ABLE TO

80  
00:03:46,859 --> 00:03:47,727  
ACCOMPLISH THOSE THINGS.

81  
00:03:47,794 --> 00:03:49,362  
LET ME TELL YOU WHAT THE

82  
00:03:49,429 --> 00:03:50,396  
PRESIDENT OF THE UNITED STATES

83  
00:03:50,463 --> 00:03:53,800  
HAS CHARGED ME WITH THE NASA

84  
00:03:53,866 --> 00:03:54,701  
ADMINISTRATOR.

85  
00:03:54,767 --> 00:03:56,869  
HIS FIRST SPACE POWILL SEE

86  
00:03:56,936 --> 00:03:58,371  
DIRECTIVE SAID THIS: HE SAID GO

87  
00:03:58,438 --> 00:04:00,273  
TO THE MOON.

88  
00:04:00,340 --> 00:04:02,775  
BUT HE SAID WE'RE NOT GOING TO

89  
00:04:02,842 --> 00:04:05,345  
DO IT IN THE WAY WE HAVE DONE IT

90  
00:04:05,411 --> 00:04:07,146  
BEFORE, THIS TIME WHEN WE GO IT

91  
00:04:07,213 --> 00:04:08,181  
IS SUSTAINABLE.

92  
00:04:08,247 --> 00:04:12,118  
THIS IS NOT ABOUT FLAGS AND FOOT

93

00:04:12,185 --> 00:04:14,787  
PRINTS AS YOU SAW, THIS IS ABOUT

94

00:04:14,854 --> 00:04:16,055  
A SUSTAINABLE RETURN TO THE

95

00:04:16,122 --> 00:04:16,422  
MOON.

96

00:04:16,489 --> 00:04:19,058  
THIS TIME WHEN WE GO, WE'RE

97

00:04:19,125 --> 00:04:19,525  
GOING TO STAY.

98

00:04:19,592 --> 00:04:21,761  
IN ORDER TO ACHIEVE THAT

99

00:04:21,828 --> 00:04:23,930  
OBJECTIVE, ROBOTICS IS A BIG

100

00:04:23,997 --> 00:04:24,998  
PIECE OF IT.

101

00:04:25,064 --> 00:04:27,367  
AND YOUR GENERATION IS THE ONE

102

00:04:27,433 --> 00:04:28,868  
THAT WILL MAKE IT HAPPEN.

103

00:04:28,935 --> 00:04:31,070  
WE HAVE A BRIGHT FUTURE TO LOOK

104

00:04:31,137 --> 00:04:32,138  
FORWARD TO.

105

00:04:32,205 --> 00:04:35,141  
HE SAID GO TO THE MOON

106  
00:04:35,208 --> 00:04:36,976  
SUSTAINABLY WITH INTERNATIONAL

107  
00:04:37,043 --> 00:04:37,744  
PARTNERS.

108  
00:04:37,810 --> 00:04:40,446  
WE HAVE A COALITION OF NATIONS

109  
00:04:40,513 --> 00:04:42,715  
ON THE INTERNATIONAL SPACE

110  
00:04:42,782 --> 00:04:43,049  
STATION.

111  
00:04:43,116 --> 00:04:44,884  
WE ARE TALKING ABOUT 15

112  
00:04:44,951 --> 00:04:46,319  
COUNTRIES COLLABORATING AND

113  
00:04:46,386 --> 00:04:48,788  
WORKING IN SPACE NOW FOR 18

114  
00:04:48,855 --> 00:04:49,722  
YEARS.

115  
00:04:49,789 --> 00:04:52,892  
THE HIGH SCHOOL STUDENTS IN THIS

116  
00:04:52,959 --> 00:04:55,061  
ROOM -- YES -- THE HIGH SCHOOL

117  
00:04:55,128 --> 00:04:56,596  
STUDENTS IN THIS ROOM, THERE HAS

118

00:04:56,663 --> 00:05:00,466  
NOT BEEN A DAY YOU HAVEN'T BEEN

119  
00:05:00,533 --> 00:05:02,502  
ALIVE WE HAVEN'T HAD A PERSON

120  
00:05:02,568 --> 00:05:04,337  
WORKING AND LIVING IN SPACE TO

121  
00:05:04,404 --> 00:05:05,938  
ADVANCE THE HUMAN CONDITION AND

122  
00:05:06,005 --> 00:05:08,007  
THAT'S WHAT THIS IS ALL B. THE

123  
00:05:08,074 --> 00:05:08,908  
SCIENCE AND TECHNOLOGY AND

124  
00:05:08,975 --> 00:05:11,177  
CAPABILITY TO ELEVATE THE HUMAN

125  
00:05:11,244 --> 00:05:11,544  
CONDITION.

126  
00:05:11,611 --> 00:05:13,479  
FOR A FEW MINUTES I WANT TO TALK

127  
00:05:13,546 --> 00:05:14,681  
ABOUT WHAT THAT MEANS.

128  
00:05:14,747 --> 00:05:17,016  
IN THIS ROOM PEOPLE ARE FAMILIAR

129  
00:05:17,083 --> 00:05:20,319  
WITH DIRECTV AND DISH NETWORK

130  
00:05:20,386 --> 00:05:23,723  
AND X M RADIO AND BROADBAND FROM

131

00:05:23,790 --> 00:05:24,057  
SPACE.

132

00:05:24,123 --> 00:05:26,993  
YOU ARE FAMILIAR WITH DIFFERENT

133

00:05:27,060 --> 00:05:27,326  
THINGS.

134

00:05:27,393 --> 00:05:29,195  
I WAS A NAVY PILOT.

135

00:05:29,262 --> 00:05:33,232  
WE WOULD DO OVER THE HORIZON

136

00:05:33,299 --> 00:05:33,800  
COMMUNICATIONS.

137

00:05:33,866 --> 00:05:36,269  
ALL THESE CAPABILITIES FOR

138

00:05:36,335 --> 00:05:38,037  
COMMUNICATION WERE BORN FROM

139

00:05:38,104 --> 00:05:39,672  
THIS LITTLE AGENCY CALLED NASA

140

00:05:39,739 --> 00:05:41,574  
AT A TIME WHEN IT WAS NOTHING

141

00:05:41,641 --> 00:05:44,043  
MORE THAN SOMEBODY'S

142

00:05:44,110 --> 00:05:45,211  
IMAGINATION, SOMEBODY'S DREAM

143

00:05:45,278 --> 00:05:46,879  
AND PEOPLED IT COULDN'T BE DONE.

144  
00:05:46,946 --> 00:05:48,047  
NOT ONLY DID THE UNITED STATES

145  
00:05:48,114 --> 00:05:51,417  
OF AMERICA ACHIEVE SPACE-BASED

146  
00:05:51,484 --> 00:05:52,251  
COMMUNICATIONS, WE

147  
00:05:52,318 --> 00:05:54,287  
COMMERCIALIZED IT AND NOW ALL OF

148  
00:05:54,353 --> 00:05:55,855  
HUMANITY CAN BENEFIT FROM IT,

149  
00:05:55,922 --> 00:05:56,956  
INCLUDING WHEN YOU THINK ABOUT

150  
00:05:57,023 --> 00:05:58,858  
THE INTERNET HERE IN RURAL

151  
00:05:58,925 --> 00:06:01,494  
OKLAHOMA, WE HAVE INTERNET

152  
00:06:01,561 --> 00:06:03,362  
BROADBAND DELIVERED FROM SPACE

153  
00:06:03,429 --> 00:06:03,796  
COMMERCIALY.

154  
00:06:03,863 --> 00:06:07,366  
BORN FROM THIS LITTLE AGENCY

155  
00:06:07,433 --> 00:06:10,303  
THAT GETS LESS THAN ONE-HALF OF

156

00:06:10,369 --> 00:06:11,904

ONE PERCENT OF THE FEDERAL

157

00:06:11,971 --> 00:06:12,238

BUDGET.

158

00:06:12,305 --> 00:06:14,340

WHAT AN AMAZING ACCOMPLISHMENT.

159

00:06:14,407 --> 00:06:18,511

IT IS NOT JUST ABOUT

160

00:06:18,578 --> 00:06:19,512

COMMUNICATION, IT'S ABOUT

161

00:06:19,579 --> 00:06:21,380

NAVSTKPWAEUGZ THE WAY WE PRODUCE

162

00:06:21,447 --> 00:06:22,782

FOOD.

163

00:06:22,849 --> 00:06:24,951

WE ARE REDUCING WATER USAGE,

164

00:06:25,017 --> 00:06:27,019

SAVING WATER, PRESERVING

165

00:06:27,086 --> 00:06:28,387

NITRATES IN THE SOIL.

166

00:06:28,454 --> 00:06:32,492

IN UGANDA IN 2017, NASA WAS

167

00:06:32,558 --> 00:06:35,128

RESPONSIBLE FOR SAVING LIVES AND

168

00:06:35,194 --> 00:06:37,230  
MITIGATING A NATURAL DISASTER,

169  
00:06:37,296 --> 00:06:37,597  
A DROUGHT.

170  
00:06:37,663 --> 00:06:40,066  
IN THE COURSE OF THAT EVENT WE

171  
00:06:40,133 --> 00:06:42,401  
SAVED THE AMERICAN TAXPAYER TENS

172  
00:06:42,468 --> 00:06:43,503  
OF MILLIONS.

173  
00:06:43,569 --> 00:06:46,105  
WE DIDN'T HAVE TO DO DISASTER

174  
00:06:46,172 --> 00:06:47,974  
RELIEF, INSTEAD WE DID

175  
00:06:48,040 --> 00:06:49,375  
MITIGATION AHEAD OF TIME.

176  
00:06:49,442 --> 00:06:53,012  
THESE ARE WHAT ARE BORN FROM

177  
00:06:53,079 --> 00:06:55,481  
THIS AGENT AND FROM ROBOTICS AND

178  
00:06:55,548 --> 00:06:56,949  
SCIENCE AND TECHNOLOGY AND

179  
00:06:57,016 --> 00:06:58,918  
THAT'S WHY WE ARE ALL HERE

180  
00:06:58,985 --> 00:06:59,218  
TODAY.

181  
00:06:59,285 --> 00:07:01,721  
BUT IT'S NOT JUST COMMUNICATION,

182  
00:07:01,788 --> 00:07:03,689  
NAVIGATION THE WAY WE PRODUCE

183  
00:07:03,756 --> 00:07:03,990  
FOOD.

184  
00:07:04,056 --> 00:07:06,092  
WE ARE IN OKLAHOMA, THE WAY YOU

185  
00:07:06,159 --> 00:07:07,193  
PRODUCE ENERGY.

186  
00:07:07,260 --> 00:07:09,595  
THE WAY WE PREDICT WEATHER.

187  
00:07:09,662 --> 00:07:12,598  
80% OF THE DATA COMES FROM

188  
00:07:12,665 --> 00:07:14,734  
SATS IN SPACE BUILT BY NASA.

189  
00:07:14,801 --> 00:07:16,469  
THE WAY WE UNDERSTAND CLIMATE

190  
00:07:16,536 --> 00:07:18,738  
AND DO DISASTER RELIEF AND

191  
00:07:18,805 --> 00:07:20,106  
NATIONAL SECURITY.

192  
00:07:20,173 --> 00:07:21,741  
EVERY BANKING TRANSACTION IN THE

193

00:07:21,808 --> 00:07:22,842  
UNITED STATES OF AMERICA

194  
00:07:22,909 --> 00:07:26,145  
REQUIRES A TIMING SIGNAL FROM

195  
00:07:26,212 --> 00:07:26,712  
GPS.

196  
00:07:26,779 --> 00:07:29,348  
NO GPS, NO BANKING.

197  
00:07:29,415 --> 00:07:31,517  
THAT'S A CRITICAL CAPABILITY.

198  
00:07:31,584 --> 00:07:34,120  
EACH ONE OF THE CAPABILITIES HAS

199  
00:07:34,187 --> 00:07:35,655  
ELEVATED THE HUMAN CONDITION.

200  
00:07:35,721 --> 00:07:37,990  
WE THINK ABOUT THE ELECTRIC ON

201  
00:07:38,057 --> 00:07:40,960  
THE GRID AND COMES FROM A TIMING

202  
00:07:41,027 --> 00:07:42,461  
SIGNAL FROM GPS.

203  
00:07:42,528 --> 00:07:43,896  
ALL OF THE CAPABILITIES THAT

204  
00:07:43,963 --> 00:07:46,265  
HAVE ELEVATED THE HUMAN

205  
00:07:46,332 --> 00:07:47,934  
CONDITION WERE BORN FROM THIS

206

00:07:48,000 --> 00:07:50,036

LITTLE AGENCY THAT RECEIVES LESS

207

00:07:50,102 --> 00:07:52,104

THAN ONE-HALF OF ONE PERCENT OF

208

00:07:52,171 --> 00:07:53,339

THE FEDERAL BUDGET.

209

00:07:53,406 --> 00:07:55,341

WHEN THEY STARTED THE APOLLO

210

00:07:55,408 --> 00:07:56,809

PROGRAM TO GO TO THE MOON,

211

00:07:56,876 --> 00:07:59,011

NOBODY HAD ANY OF THIS IN MIND.

212

00:07:59,078 --> 00:08:00,446

YET, HERE WE ARE.

213

00:08:00,513 --> 00:08:02,215

AND THAT'S WHY WE SUPPORT THIS

214

00:08:02,281 --> 00:08:02,548

EVENT.

215

00:08:02,615 --> 00:08:04,984

THAT'S THE WHY WE SUPPORT FIRST

216

00:08:05,051 --> 00:08:05,351

ROBOTICS.

217

00:08:05,418 --> 00:08:07,053

IT IS YOUR GENERATION TO TAKE US

218

00:08:07,119 --> 00:08:09,422  
TO THE NEXT LEVEL, TO THE NEXT

219  
00:08:09,488 --> 00:08:09,722  
STEP.

220  
00:08:09,789 --> 00:08:12,658  
I WANT TO GO THROUGH A FEW

221  
00:08:12,725 --> 00:08:13,926  
CAPABILITIES WE HAVE ON-GOING

222  
00:08:13,993 --> 00:08:15,094  
RIGHT NOW.

223  
00:08:15,161 --> 00:08:16,529  
ANYBODY HERE INTERESTED IN

224  
00:08:16,596 --> 00:08:21,767  
ROBOTS?IN

225  
00:08:21,834 --> 00:08:23,002  
[CHEERING]

226  
00:08:23,069 --> 00:08:25,738  
WE NEED TO PULL UP A POWER POINT

227  
00:08:25,805 --> 00:08:27,840  
HERE.

228  
00:08:27,907 --> 00:08:30,576  
SO WE'RE GOING TO DO EXPLORATION

229  
00:08:30,643 --> 00:08:32,044  
OF SPACE TECHNOLOGY.

230  
00:08:32,111 --> 00:08:33,446  
THE FIRST ROBOT I AM GOING TO

231

00:08:33,512 --> 00:08:36,782

SHOW YOU WAS TWO ROBOTS, SPIRIT

232

00:08:36,849 --> 00:08:37,383

AND OPPORTUNITY.

233

00:08:37,450 --> 00:08:42,722

ANYBODY HEARD OF SPIRIT AND

234

00:08:42,788 --> 00:08:44,090

OPPORTUNITIESES?

235

00:08:44,156 --> 00:08:45,157

OPPORTUNITY?

236

00:08:45,224 --> 00:08:47,493

TWO OF THE ROBOTS WERE DELIVERED

237

00:08:47,560 --> 00:08:50,663

TO MARS BACK IN 2004.

238

00:08:50,730 --> 00:08:53,566

WE WERE JUST HOPEFUL THAT THEY

239

00:08:53,633 --> 00:08:59,438

COULD LAST FOR 90 DAYS.

240

00:08:59,505 --> 00:09:01,274

AND MAYBE MAKE IT 100-METERS.

241

00:09:01,340 --> 00:09:02,541

THAT WAS THE TKPWOEUL.

242

00:09:02,608 --> 00:09:06,479

IN FACT, SPIRIT LASTED FROM 2004

243

00:09:06,545 --> 00:09:08,147  
TO 2011 AND OPPORTUNITY LASTED

244  
00:09:08,214 --> 00:09:10,383  
UNTIL JUST ABOUT A MONTH AGO.

245  
00:09:10,449 --> 00:09:12,685  
WHAT AN AMAZING CAPABILITY BORN

246  
00:09:12,752 --> 00:09:14,787  
BY NASA SCIENTISTS, ENGINEERS

247  
00:09:14,854 --> 00:09:17,356  
AND ROBOTICS PROFESSIONALS.

248  
00:09:17,423 --> 00:09:18,291  
BECAUSE OF SPIRIT AND

249  
00:09:18,357 --> 00:09:19,425  
OPPORTUNITY I WANT TO SHARE

250  
00:09:19,492 --> 00:09:19,992  
SOMETHING WITH YOU.

251  
00:09:20,059 --> 00:09:22,762  
WE LEARNED SOME THINGS.

252  
00:09:22,828 --> 00:09:25,197  
THESE TWO LITTLE ROBOTS

253  
00:09:25,264 --> 00:09:26,832  
DEMONSTRATED TO US THERE ARE

254  
00:09:26,899 --> 00:09:29,035  
MINERALS ON MARS THAT CAN ONLY

255  
00:09:29,101 --> 00:09:31,237  
EXIST UNDER WATER.

256

00:09:31,304 --> 00:09:33,272

FRIEND, MARS USED TO HAVE WATER.

257

00:09:33,339 --> 00:09:35,574

NOT JUST A LITTLE WATER, THE

258

00:09:35,641 --> 00:09:39,812

ENTIRE NORTHERN HEMISPHERE OF

259

00:09:39,879 --> 00:09:40,846

TWO-THIRDS COVERED IN OCEAN.

260

00:09:40,913 --> 00:09:43,115

WE KNOW THERE IS EVIDENCE OF

261

00:09:43,182 --> 00:09:44,016

FLOWING WATER.

262

00:09:44,083 --> 00:09:45,718

WHAT DOES THIS MEAN?

263

00:09:45,785 --> 00:09:48,921

IF IT HAS LIQUID WATER ON THE

264

00:09:48,988 --> 00:09:53,025

SURFACE IT MEANS IT HAD A THICK

265

00:09:53,092 --> 00:09:53,993

ATMOSPHERE.

266

00:09:54,060 --> 00:09:59,632

IT ALSO MEANS IT WAS PROTECTED

267

00:09:59,699 --> 00:10:01,767

FROM THE RADIATION OF DEEP

268

00:10:01,834 --> 00:10:02,134  
SPACE.

269  
00:10:02,201 --> 00:10:07,573  
MARS WAS AT ONE TIME HABITABLE.

270  
00:10:07,640 --> 00:10:09,775  
I'M NOT SAYING IT WAS INHABITED,

271  
00:10:09,842 --> 00:10:10,276  
I DON'T KNOW.

272  
00:10:10,343 --> 00:10:14,213  
DON'T GO TELL THE MEDIA THE NASA

273  
00:10:14,280 --> 00:10:15,348  
ADMINISTRATOR SAID THERE WERE

274  
00:10:15,414 --> 00:10:16,782  
BUNNY RABBITS ON MARS.

275  
00:10:16,849 --> 00:10:19,051  
BUT I WILL TELL YOU, AT ONE TIME

276  
00:10:19,118 --> 00:10:21,187  
IN ITS HISTORY, 3 BILLION YEARS

277  
00:10:21,253 --> 00:10:23,856  
AGO, MARS WAS CAPABLE OF HOSTING

278  
00:10:23,923 --> 00:10:24,256  
WELL.

279  
00:10:24,323 --> 00:10:25,791  
I'M NOT SAYING IT DID, BUT IT

280  
00:10:25,858 --> 00:10:27,059  
WAS CAPABLE.

281

00:10:27,126 --> 00:10:30,196

LET'S FAST FORWARD.

282

00:10:30,262 --> 00:10:30,563

CURIOSITY.

283

00:10:30,629 --> 00:10:33,099

ANYBODY FAMILIAR WITH CURIOSITY?

284

00:10:33,165 --> 00:10:37,036

[CHEERING]

285

00:10:37,103 --> 00:10:40,306

WELL, JUST SINCE I HAVE BEEN THE

286

00:10:40,373 --> 00:10:41,507

ADMINISTRATOR THE LAST YEAR WE

287

00:10:41,574 --> 00:10:43,476

HAVE MADE AMAZING DISCOVERIES

288

00:10:43,542 --> 00:10:45,945

USING THIS ROBOT ON MARS.

289

00:10:46,012 --> 00:10:50,216

WE NOW KNOW THAT THERE ARE

290

00:10:50,282 --> 00:10:52,451

COMPLEX ORGANIC COMPOUNDS ON THE

291

00:10:52,518 --> 00:10:54,220

SURFACE OF MARS.

292

00:10:54,286 --> 00:10:55,421

THAT DOESN'T MEAN THERE IS LIFE

293

00:10:55,488 --> 00:10:57,590  
ON MARS, BUT THE PROBABILITY

294  
00:10:57,656 --> 00:10:58,691  
JUST WENT UP.

295  
00:10:58,758 --> 00:11:01,594  
THE BUILDING BLOCK FOR LIFE

296  
00:11:01,660 --> 00:11:03,562  
EXIST ON MARS.

297  
00:11:03,629 --> 00:11:06,432  
I WANT TO BE CLEAR, THOSE

298  
00:11:06,499 --> 00:11:08,401  
BUILDING BLOCKS DO NOT EXIST ON

299  
00:11:08,467 --> 00:11:09,702  
THE MOON.

300  
00:11:09,769 --> 00:11:11,270  
THEY EXIST ON MARS.

301  
00:11:11,337 --> 00:11:12,738  
AND, OF COURSE, THEY ARE ALL

302  
00:11:12,805 --> 00:11:14,040  
OVER PLANET EARTH.

303  
00:11:14,106 --> 00:11:17,243  
THEY EXIST ON MARS IN MASSIVE

304  
00:11:17,309 --> 00:11:17,610  
VOLUMES.

305  
00:11:17,676 --> 00:11:20,212  
THERE IS SOMETHING ABOUT MARS'

306  
00:11:20,279 --> 00:11:21,514  
HISTORY THAT SAYS THE BUILDING

307  
00:11:21,580 --> 00:11:23,549  
BLOCKS OF LIFE EXIST THERE NOW.

308  
00:11:23,616 --> 00:11:26,185  
WHAT COULD HAVE GONE ON IN ITS

309  
00:11:26,252 --> 00:11:26,552  
HISTORY?

310  
00:11:26,619 --> 00:11:29,155  
WE ALSO KNOW BECAUSE OF

311  
00:11:29,221 --> 00:11:32,892  
CURIOSITY THE METH18 CYCLES OF

312  
00:11:32,958 --> 00:11:35,161  
MARS ARE COMMENCEERATE WITH THE

313  
00:11:35,227 --> 00:11:36,762  
SEASONS OF MARS.

314  
00:11:36,829 --> 00:11:38,164  
THAT DOESN'T GUARANTEE LIFE, BUT

315  
00:11:38,230 --> 00:11:39,799  
THE PROBABILITY JUST WENT UP

316  
00:11:39,865 --> 00:11:40,533  
A LITTLE BIT MORE.

317  
00:11:40,599 --> 00:11:43,602  
AND JUST A FEW MONTHS AGO WE

318

00:11:43,669 --> 00:11:47,506  
DISCOVERED NOT WITH THIS

319  
00:11:47,573 --> 00:11:49,575  
SPACECRAFT, BUT WITH

320  
00:11:49,642 --> 00:11:55,314  
INTERNATIONAL PARTNERS WE

321  
00:11:55,381 --> 00:11:58,851  
DISCOVERED THERE IS LIQUID WATER

322  
00:11:58,918 --> 00:12:00,886  
12-METERS BELOW MARS.

323  
00:12:00,953 --> 00:12:03,089  
WHEREVER THERE IS LIQUID WATER

324  
00:12:03,155 --> 00:12:04,290  
THERE IS WIFE.

325  
00:12:04,356 --> 00:12:07,593  
IT IS 12-KILOMETERS UNDER THE

326  
00:12:07,660 --> 00:12:08,694  
SURFACE OF MARS?

327  
00:12:08,761 --> 00:12:11,397  
THAT MEANS, I'M NOT SAYING THERE

328  
00:12:11,464 --> 00:12:14,266  
IS, WE MAKE NO PREDICTIONS UNTIL

329  
00:12:14,333 --> 00:12:20,940  
WE MAKE DISCOVERY, 12-KILOMETERS

330  
00:12:21,006 --> 00:12:22,575  
UNDER THE EARTH MEAN ITS IS

331  
00:12:22,641 --> 00:12:25,311  
PROTECTED FROM THE DEEP SPACE

332  
00:12:25,377 --> 00:12:26,378  
RADIATION FROM THE SUN.

333  
00:12:26,445 --> 00:12:28,247  
IT DOESN'T GUARANTEE LIFE BUT

334  
00:12:28,314 --> 00:12:29,482  
PROBABILITY KEEPS GOING UP.

335  
00:12:29,548 --> 00:12:31,383  
WHO WANTS TO BE THE ENGINEER

336  
00:12:31,450 --> 00:12:33,452  
THAT DEVELOPS THE ROBOT OR OFF

337  
00:12:33,519 --> 00:12:36,288  
THE NAT WHO FINDS -- ASTRONAUT

338  
00:12:36,355 --> 00:12:38,958  
WHO FINDS LIFE ON ANOTHER WORLD?

339  
00:12:39,024 --> 00:12:40,259  
ANYBODY HERE WANT TO DO THAT?

340  
00:12:40,326 --> 00:12:42,161  
[CHEERING]

341  
00:12:42,228 --> 00:12:43,129  
FRIENDS, THAT'S WHAT WE ARE

342  
00:12:43,195 --> 00:12:44,697  
TRYING TO ACHIEVE AND WE ARE

343

00:12:44,763 --> 00:12:47,099  
FOLLOWING THE WATER.

344  
00:12:47,166 --> 00:12:48,534  
THIS IS INSIGHT.

345  
00:12:48,601 --> 00:12:50,903  
WE LANDED INSIGHT ON MARS IN

346  
00:12:50,970 --> 00:12:51,270  
NOVEMBER.

347  
00:12:51,337 --> 00:12:52,938  
AND IT WAS AN AMAZING DAY.

348  
00:12:53,005 --> 00:12:57,109  
THIS IS A KEY CAPE ABILITY THAT

349  
00:12:57,176 --> 00:12:59,612  
IS IMPORTANT AND YOU AS FUTURE

350  
00:12:59,678 --> 00:13:02,214  
TECHNICIANS AND ROBOTICS

351  
00:13:02,281 --> 00:13:03,315  
ENGINEERS YOU MIGHT WANT TO

352  
00:13:03,382 --> 00:13:03,682  
CONSIDER.

353  
00:13:03,749 --> 00:13:05,151  
WE LANDED ON MARS FOR THE EIGHTH

354  
00:13:05,217 --> 00:13:08,420  
TIME IN HUMAN HISTORY.

355  
00:13:08,487 --> 00:13:09,388  
EIGHT TIMES.

356

00:13:09,455 --> 00:13:10,689

THE UNITED STATES OF AMERICA IS

357

00:13:10,756 --> 00:13:12,291

THE ONLY COUNTRY THAT HAS EVER

358

00:13:12,358 --> 00:13:13,759

BEEN ABLE TO DO IT.

359

00:13:13,826 --> 00:13:15,227

OTHERS HAVE TRIED AND FAILED.

360

00:13:15,294 --> 00:13:17,897

WE ARE NOW DOING IT WITH OUR

361

00:13:17,963 --> 00:13:19,265

INTERNATIONAL PARTNERS.

362

00:13:19,331 --> 00:13:22,134

ALL THE SCIENCE AND DATA WE GET

363

00:13:22,201 --> 00:13:23,903

WE GIVE TO THE WORLD FOR FREE.

364

00:13:23,969 --> 00:13:24,403

WHY?

365

00:13:24,470 --> 00:13:26,105

BECAUSE IT'S SCIENCE.

366

00:13:26,172 --> 00:13:27,907

THAT'S -- BECAUSE IT'S SCIENCE,

367

00:13:27,973 --> 00:13:29,241

THAT'S WHY.

368

00:13:29,308 --> 00:13:35,314  
[CHEERING]

369  
00:13:35,381 --> 00:13:36,448  
AND HERE IS THE THING.

370  
00:13:36,515 --> 00:13:40,653  
WHEN WE LANDED INSIGHT ON MARS

371  
00:13:40,719 --> 00:13:45,224  
WE ALSO WERE ON THE COVER OF 240

372  
00:13:45,291 --> 00:13:46,992  
NEWSPAPERS WORLDWIDE.

373  
00:13:47,059 --> 00:13:49,795  
FRIEND, NASA IS AN AMAZING TOOL

374  
00:13:49,862 --> 00:13:51,463  
OF DIPLOMACY FOR THE UNITED

375  
00:13:51,530 --> 00:13:56,468  
STATES OF AMERICA.

376  
00:13:56,535 --> 00:14:01,473  
PEOPLE ON THE OTHER SIDE OF THE

377  
00:14:01,540 --> 00:14:03,075  
COUNTRY THAT MIGHT NOT BE

378  
00:14:03,142 --> 00:14:04,043  
FRIENDLY TO THE UNITED STATES

379  
00:14:04,109 --> 00:14:06,745  
AND SEE WHO WE ARE.

380  
00:14:06,812 --> 00:14:11,684  
THIS IS AN AMAZING DIPLOMATIC

381  
00:14:11,750 --> 00:14:12,084  
CAPABILITY.

382  
00:14:12,151 --> 00:14:15,120  
INSIGHT LOOKS LIKE PHOENIX THAT

383  
00:14:15,187 --> 00:14:17,456  
WAS A DISCOVERY ON MARS.

384  
00:14:17,523 --> 00:14:21,293  
2009 WE DISCOVERED PURE WATER

385  
00:14:21,360 --> 00:14:27,733  
ICE ON THE SURFACE OF MARS.

386  
00:14:27,800 --> 00:14:30,936  
THAT'S WHAT WE ARE HERE TO DO

387  
00:14:31,003 --> 00:14:32,771  
TODAY, MORE ROBOTICS.

388  
00:14:32,838 --> 00:14:34,707  
WE TALKED ABOUT HOW THERE WAS

389  
00:14:34,773 --> 00:14:36,008  
WATER ON MARS.

390  
00:14:36,075 --> 00:14:41,580  
WHERE DID IT GO?

391  
00:14:41,647 --> 00:14:45,517  
A LONG TIME AGO IT SEEMS MARS

392  
00:14:45,584 --> 00:14:47,119  
MIGHT HAVE HAD A MOLTEN CORE

393

00:14:47,186 --> 00:14:51,423  
LIKE THE EARTH AND HAD A MANETIS

394  
00:14:51,490 --> 00:14:54,326  
FEAR THAT PROTECTED IT FROM THE

395  
00:14:54,393 --> 00:14:54,593  
SUN.

396  
00:14:54,660 --> 00:14:56,729  
IT WENT AWAY AND CHARGED

397  
00:14:56,795 --> 00:14:58,964  
PARTICLES FROM THE SUN IMPACTED

398  
00:14:59,031 --> 00:15:00,733  
THE PLANET AND A LOT OF THE

399  
00:15:00,799 --> 00:15:03,235  
WATER WENT OUT INTO SPACE.

400  
00:15:03,302 --> 00:15:04,303  
WE WEREN'T THERE.

401  
00:15:04,370 --> 00:15:06,872  
BUT WE ARE TRYING TO MAKE

402  
00:15:06,939 --> 00:15:09,174  
ASSESSMENTS AS TO WHAT HAPPENED.

403  
00:15:09,241 --> 00:15:12,111  
THIS SATELLITE, MAVEN, WHICH IS

404  
00:15:12,177 --> 00:15:16,282  
ROBOTIC, EACH OF THE SATELLITES

405  
00:15:16,348 --> 00:15:16,849  
ARE ROBOTS.

406

00:15:16,915 --> 00:15:20,219

THEY HAVE TO WORK AUTON MOUSILY.

407

00:15:20,286 --> 00:15:22,821

IT TAKES EIGHT MINUTES FOR THE

408

00:15:22,888 --> 00:15:27,059

SIGNALS TO REACH.

409

00:15:27,126 --> 00:15:32,598

IT IS MAKING DECISIONS AUTON

410

00:15:32,665 --> 00:15:34,333

MOUSILY.

411

00:15:34,400 --> 00:15:41,607

OVER CHRISTMAS OSIRUS REX,

412

00:15:41,674 --> 00:15:43,609

THAT'S THE FIRST TIME IN HUMAN

413

00:15:43,676 --> 00:15:47,179

HISTORY WE CAN ORBIT AN OBJECTS

414

00:15:47,246 --> 00:15:48,847

THAT SMALL, THIS ROBOT WILL

415

00:15:48,914 --> 00:15:52,618

COLLECT A SAMPLE FROM THE ASTRO

416

00:15:52,685 --> 00:15:56,622

IN DEEP SPACE AND BRING IT BACK

417

00:15:56,689 --> 00:15:58,223

TO EARTH AND WE'LL BE ABLE TO

418

00:15:58,290 --> 00:16:00,659  
USE REALLY LARGE MICROSCOPES TO

419  
00:16:00,726 --> 00:16:05,864  
LOOK AT THE SOIL AND MAKE

420  
00:16:05,931 --> 00:16:06,298  
ASSESSMENTS.

421  
00:16:06,365 --> 00:16:08,834  
IT IS COMING HOME IN 2021.

422  
00:16:08,901 --> 00:16:10,469  
ANYONE HERE WANT TO SEE THE

423  
00:16:10,536 --> 00:16:13,772  
SAMPLES THAT COME BACK IN 2021?

424  
00:16:13,839 --> 00:16:16,809  
[CHEERING]

425  
00:16:16,875 --> 00:16:20,112  
HERE WE HAVE A SATELLITE NAMED

426  
00:16:20,179 --> 00:16:21,780  
JUNEAU THAT IS GETTING UP CLOSE

427  
00:16:21,847 --> 00:16:24,049  
AND BEAUTIFUL PICTURES OF

428  
00:16:24,116 --> 00:16:24,516  
JUPITER.

429  
00:16:24,583 --> 00:16:28,020  
I WILL ACCELERATE, CASSINI.

430  
00:16:28,087 --> 00:16:30,089  
THIS IS AN AMAZING CAPABILITY.

431

00:16:30,155 --> 00:16:33,392

IT WAS AROUND SATURN FOR A LONG

432

00:16:33,459 --> 00:16:35,594

TIME AND WHAT IT DOES AT THE END

433

00:16:35,661 --> 00:16:37,529

OF ITS LIFE WE DETERMINED IT WAS

434

00:16:37,596 --> 00:16:39,431

COMING TO THE END OF ITS LIFE

435

00:16:39,498 --> 00:16:40,966

AND ALMOST OUT OF FUEL AND WE

436

00:16:41,033 --> 00:16:44,203

WERE ABLE TO FLY THIS LITTLE

437

00:16:44,269 --> 00:16:45,437

SATELLITE BETWEEN AND THROUGH

438

00:16:45,504 --> 00:16:48,073

THE RINGS OF SATURN AND GET

439

00:16:48,140 --> 00:16:48,841

AMAZING PICTURES.

440

00:16:48,907 --> 00:16:50,976

I WOULD ENCOURAGE ALL OF YOU IN

441

00:16:51,043 --> 00:16:52,277

HIGH SCHOOL WHEN YOU GET HOME GO

442

00:16:52,344 --> 00:16:53,579

LOOK AT THE AMAZING PICTURES

443

00:16:53,645 --> 00:16:55,981  
FROM THE CASSINI SATELLITE WE

444

00:16:56,048 --> 00:16:58,951  
HAVE HAD AROUND SATURN.

445

00:16:59,017 --> 00:17:02,388  
AND, OF COURSE, NEW HORIZONS.

446

00:17:02,454 --> 00:17:04,790  
DOES ANYBODY REMEMBER NEW

447

00:17:04,857 --> 00:17:05,157  
HORIZONS?

448

00:17:05,224 --> 00:17:06,525  
THERE WE GO.

449

00:17:06,592 --> 00:17:09,561  
REMEMBER IN 2014 WHEN WE FLEW BY

450

00:17:09,628 --> 00:17:11,897  
PLUTO FOR THE FIRST TIME IN

451

00:17:11,964 --> 00:17:13,365  
HUMAN HISTORY AND GOT THOSE

452

00:17:13,432 --> 00:17:17,202  
STUNNING IMAGES?

453

00:17:17,269 --> 00:17:19,304  
IT MIGHT NOT BE POPULAR THESE

454

00:17:19,371 --> 00:17:21,640  
DAYS BUT PLUTO ISN'T EXACTLY

455

00:17:21,707 --> 00:17:22,841  
A PLANET ANY MORE.

456

00:17:22,908 --> 00:17:26,211

BUT I THINK IT OUGHT TO BE, SO

457

00:17:26,278 --> 00:17:29,581

CALL IT GOOD.

458

00:17:29,648 --> 00:17:31,650

HERE IS WHAT IS AMAZING.

459

00:17:31,717 --> 00:17:34,353

AFTER WE FLEW BY PLUTO AND GOT

460

00:17:34,420 --> 00:17:35,721

BEAUTIFUL IMAGES WE GOT

461

00:17:35,788 --> 00:17:37,523

BEAUTIFUL IMAGES OF ITS MOON AND

462

00:17:37,589 --> 00:17:41,260

WENT TO ANOTHER DESTINATION FOUR

463

00:17:41,326 --> 00:17:44,129

BILLION MILES FROM EARTH, THE

464

00:17:44,196 --> 00:17:45,898

FURTHEST OBJECT EVER LOOKED AT

465

00:17:45,964 --> 00:17:48,534

UP CLOSE BY NASA.

466

00:17:48,600 --> 00:17:56,975

ANYBODY HEAR OF ULTIMA THULE?

467

00:17:57,042 --> 00:17:58,877

WE DID NOT KNOW WHAT WE WOULD

468

00:17:58,944 --> 00:18:01,413  
SEE WHEN WE FLEW BY AND WE HAVE

469  
00:18:01,480 --> 00:18:02,748  
BEAUTIFUL IMAGES AND WE HAVE

470  
00:18:02,815 --> 00:18:05,684  
MORE AND MORE SCIENCE ABOUT THE

471  
00:18:05,751 --> 00:18:06,051  
OBJECTS.

472  
00:18:06,118 --> 00:18:10,189  
WE ARE COMING TO THE END.

473  
00:18:10,255 --> 00:18:13,258  
THIS IS ASTRO B IS NOT

474  
00:18:13,325 --> 00:18:14,693  
A SATELLITE IN DEEP SPACE OR

475  
00:18:14,760 --> 00:18:16,762  
A ROBOT ON ANOTHER WORLD IT IS

476  
00:18:16,829 --> 00:18:20,065  
A ROBOT ON THE INTERNATIONAL

477  
00:18:20,132 --> 00:18:20,833  
SPACE STATION.

478  
00:18:20,899 --> 00:18:22,634  
IT IS A TOOL AND PARTNER AND WE

479  
00:18:22,701 --> 00:18:24,970  
ARE LAUNCHING IT IN SHORT ORDER

480  
00:18:25,037 --> 00:18:27,005  
AND WE WILL PUT IT ON THE

481  
00:18:27,072 --> 00:18:28,040  
INTERNATIONAL SPACE STATION AND

482  
00:18:28,106 --> 00:18:33,178  
HELP OUR ASTRONAUTS LIVE AND

483  
00:18:33,245 --> 00:18:33,779  
WORK IN SPACE.

484  
00:18:33,846 --> 00:18:38,750  
YOU CAN SEE IT HAS NO LEGS OR

485  
00:18:38,817 --> 00:18:41,153  
ARMS.

486  
00:18:41,220 --> 00:18:45,624  
BUT WHAT IT HAS IS THRUSTERS.

487  
00:18:45,691 --> 00:18:51,129  
IN A MICROGRAVITY ENVIRONMENT IT

488  
00:18:51,196 --> 00:18:53,966  
FLOAT AROUND AND DOES DAILY

489  
00:18:54,032 --> 00:18:54,399  
CHORES.

490  
00:18:54,466 --> 00:18:55,834  
ANYBODY HERE WANT TO BUILD

491  
00:18:55,901 --> 00:18:58,103  
ROBOTS THAT GO ON THE

492  
00:18:58,170 --> 00:19:00,038  
INTERNATIONAL SPACE STATION OR

493

00:19:00,105 --> 00:19:02,508  
FUTURE SPACE STATIONS?

494  
00:19:02,574 --> 00:19:05,177  
[CHEERING]

495  
00:19:05,244 --> 00:19:07,946  
AND FINALLY, WE HAVE ROBOTICS ON

496  
00:19:08,013 --> 00:19:10,649  
THE INTERNATIONAL SPACE STATION

497  
00:19:10,716 --> 00:19:11,617  
ON THE OUTSIDE.

498  
00:19:11,683 --> 00:19:14,486  
WE HAVE ASTRONAUT JOHN ARON SON

499  
00:19:14,553 --> 00:19:15,153  
HERE.

500  
00:19:15,220 --> 00:19:18,590  
GOOD FRIEND OF MINE.

501  
00:19:18,657 --> 00:19:20,959  
NAVY PILOT, AN AMERICAN HERO.

502  
00:19:21,026 --> 00:19:22,528  
THE FIRST NATIVE AMERICAN IN

503  
00:19:22,594 --> 00:19:22,895  
SPACE.

504  
00:19:22,961 --> 00:19:26,331  
JOHN HERRINGTON HAD THE

505  
00:19:26,398 --> 00:19:30,569  
OPPORTUNITY TO FLY ON THE

506

00:19:30,636 --> 00:19:31,370

INTERNATIONAL SPACE STATION.

507

00:19:31,436 --> 00:19:33,572

I WANT TO SHOW YOU A VIDEO.

508

00:19:33,639 --> 00:19:36,708

YOU CAN SEE THE LONG STICK BELOW

509

00:19:36,775 --> 00:19:38,777

THE SPACE STATION, THAT IS

510

00:19:38,844 --> 00:19:39,845

A ROBOTIC ARM.

511

00:19:39,912 --> 00:19:42,814

WE'LL WATCH VIDEO OF HOW THE

512

00:19:42,881 --> 00:19:47,586

ROBOTIC ARM WORKS.

513

00:19:47,653 --> 00:19:50,055

YOU CAN SEE THE ASTRONAUT AT THE

514

00:19:50,122 --> 00:19:51,590

END OF THE ROBOTIC ARM.

515

00:19:51,657 --> 00:19:52,891

THIS IS A CRITICAL THING FOR THE

516

00:19:52,958 --> 00:19:54,092

UNITED STATES OF AMERICA AND

517

00:19:54,159 --> 00:19:55,160

I'LL TELL YOU WHY.

518

00:19:55,227 --> 00:19:56,929  
YOUR TAX DOLLARS DID NOT INVEST

519  
00:19:56,995 --> 00:19:59,731  
IN THAT ROBOTIC ARM.

520  
00:19:59,798 --> 00:20:03,468  
THIS IS AN INTERNATIONAL

521  
00:20:03,535 --> 00:20:04,369  
PARTNERSHIP.

522  
00:20:04,436 --> 00:20:07,839  
CANADA SAID THEY WOULD STEP UP

523  
00:20:07,906 --> 00:20:09,908  
AND DO THAT AND LAST MONTH THEY

524  
00:20:09,975 --> 00:20:11,076  
SAID WE'LL BE WITH THE UNITED

525  
00:20:11,143 --> 00:20:12,444  
STATES FOR THE NEXT 24 YEARS IN

526  
00:20:12,511 --> 00:20:14,046  
SPACE BECAUSE WE ARE BUILDING

527  
00:20:14,112 --> 00:20:16,214  
A SPACE STATION THAT WILL BE IN

528  
00:20:16,281 --> 00:20:16,782  
ORBIT AROUND THE MOON.

529  
00:20:16,848 --> 00:20:18,984  
NOT OUR AROUND EARTH, BUT THE

530  
00:20:19,051 --> 00:20:19,284  
MOON.

531

00:20:19,351 --> 00:20:20,786

WE ARE GOING BACK TO THE AMONG

532

00:20:20,852 --> 00:20:21,219

TO STAY.

533

00:20:21,286 --> 00:20:25,757

WE NEED A REUSABLE COMMAND

534

00:20:25,824 --> 00:20:27,492

MODULE AND WE WILL WORK WITH

535

00:20:27,559 --> 00:20:29,695

CANADA TO PROVIDE THE ROBOTIC

536

00:20:29,761 --> 00:20:31,930

ARM AND CAPE ACTS AND

537

00:20:31,997 --> 00:20:33,365

TECHNOLOGIES THAT ALLOW US TO DO

538

00:20:33,432 --> 00:20:36,335

MORE SI SKPEPBS DISCOVERY NAN --

539

00:20:36,401 --> 00:20:40,572

SCIENCE AND DISCOVERY THAN EVER

540

00:20:40,639 --> 00:20:41,006

BEFORE.

541

00:20:41,073 --> 00:20:42,975

ALL OF THE COUNTRIES LIVING AND

542

00:20:43,041 --> 00:20:44,309

WORKING TOGETHER IN SPACE.

543

00:20:44,376 --> 00:20:50,515  
WE HAVE HAD 103 COUNTRIES DOING

544  
00:20:50,582 --> 00:20:52,851  
SCIENTIFIC EXPERIMENTS ON THE

545  
00:20:52,918 --> 00:20:54,186  
INTERNATIONAL SPACE STATION WITH

546  
00:20:54,252 --> 00:20:54,620  
ROBOTIC HELP.

547  
00:20:54,686 --> 00:20:58,256  
THIS IS A CAPABILITY OUR COUNTRY

548  
00:20:58,323 --> 00:20:58,557  
NEEDS.

549  
00:20:58,624 --> 00:21:01,159  
WE NEED EACH AND EVERY ONE EVER

550  
00:21:01,226 --> 00:21:03,295  
YOU TO STEP UP AND TAKE THAT GEN

551  
00:21:03,362 --> 00:21:05,097  
TRAOEUGZ GO FURTHER AND DO MORE

552  
00:21:05,163 --> 00:21:06,832  
BECAUSE IT'S IN THE NATIONAL

553  
00:21:06,898 --> 00:21:08,033  
SECURITY INTEREST OF OUR

554  
00:21:08,100 --> 00:21:08,634  
COUNTRY.

555  
00:21:08,700 --> 00:21:11,036  
FRIENDS, I'M ASKING YOU TO HELP

556

00:21:11,103 --> 00:21:12,304

YOUR COUNTRY ACHIEVE MORE AND

557

00:21:12,371 --> 00:21:14,640

HELP THE WORLD DISCOVER MORE AND

558

00:21:14,706 --> 00:21:18,276

LEARN MORE THAN WE HAVE EVER

559

00:21:18,343 --> 00:21:19,778

BEEN BE ABLE TO DISCOVER OR

560

00:21:19,845 --> 00:21:21,079

LEARN IN THE PAST AND WE'LL BE

561

00:21:21,146 --> 00:21:23,982

ABLE TO DO IT BECAUSE OF

562

00:21:24,049 --> 00:21:24,349

ROBOTICS.

563

00:21:24,416 --> 00:21:26,018

THAT'S WHY WE ARE HERE TO

564

00:21:26,084 --> 00:21:27,085

SUPPORT THIS EVENT.