



1
00:00:25,160 --> 00:00:30,109
140 million miles from earth

2
00:00:30,119 --> 00:00:36,389
162 days in space

3
00:00:42,790 --> 00:00:39,190
i've traveled so far and yet the further

4
00:00:42,800 --> 00:00:59,910
the more i seem to be looking back

5
00:01:03,189 --> 00:01:02,069
m1 you have exactly 10 minutes to final

6
00:01:06,469 --> 00:01:03,199
marker

7
00:01:09,670 --> 00:01:06,479
gill issm is clear for calm's link

8
00:01:13,270 --> 00:01:09,680
houston marking now copy that houston

9
00:01:15,749 --> 00:01:13,280
good morning m1 plls data looking good

10
00:01:17,510 --> 00:01:15,759
ecg is normal

11
00:01:19,030 --> 00:01:17,520
we got you ham one

12
00:01:21,910 --> 00:01:19,040
i don't think my grandfather would have

13
00:01:24,630 --> 00:01:21,920

liked the sound of that houston

14

00:01:26,550 --> 00:01:24,640

would you care to elaborate on that

15

00:01:27,990 --> 00:01:26,560

that man never trusted things run by

16

00:01:30,789 --> 00:01:28,000

computers

17

00:01:34,149 --> 00:01:30,799

did i ever mention that he was a sailor

18

00:01:35,990 --> 00:01:34,159

nane made me learn the stars by sight

19

00:01:38,149 --> 00:01:36,000

just like he did my mother

20

00:01:38,830 --> 00:01:38,159

he wanted us to trust ourselves to find

21

00:01:40,950 --> 00:01:38,840

our

22

00:01:43,590 --> 00:01:40,960

way you see

23

00:01:46,310 --> 00:01:43,600

all that stargazing did pay off

24

00:01:52,789 --> 00:01:47,429

i'm sure your mother and grandfather

25

00:01:59,510 --> 00:01:55,749

m1

26
00:02:03,350 --> 00:02:01,030
today would have been my mother's 50th

27
00:02:07,990 --> 00:02:03,360
birthday

28
00:02:09,990 --> 00:02:08,000
houston feels that's a good sign

29
00:02:17,589 --> 00:02:10,000
she's

30
00:02:23,430 --> 00:02:19,270
i was only eight years old when mama

31
00:02:27,030 --> 00:02:25,110
i still remember playing on the lagoon

32
00:02:29,750 --> 00:02:27,040
that morning

33
00:02:32,309 --> 00:02:29,760
i love the water

34
00:02:39,589 --> 00:02:32,319
guinea guy you can make it out

35
00:02:44,869 --> 00:02:41,830
we're never getting home now never and

36
00:03:19,750 --> 00:02:44,879
there are socks everywhere sharks man

37
00:03:22,949 --> 00:03:21,190
i couldn't run fast enough to my

38
00:03:27,270 --> 00:03:22,959

grandfather's house

39

00:03:36,070 --> 00:03:29,190

her last breath has

40

00:03:36,080 --> 00:03:40,149

cholera took my mother's life

41

00:03:40,159 --> 00:03:44,789

and later that same year my best friend

42

00:03:44,799 --> 00:03:51,190

obie

43

00:03:56,869 --> 00:03:53,270

so many people died from the water

44

00:04:00,550 --> 00:03:58,470

the thought of not having clean water

45

00:04:03,589 --> 00:04:00,560

seems so

46

00:04:06,550 --> 00:04:05,110

bill there's some concern about her

47

00:04:07,830 --> 00:04:06,560

biofeedback

48

00:04:08,789 --> 00:04:07,840

medical's noticed a change in your

49

00:04:10,229 --> 00:04:08,799

readings

50

00:04:13,110 --> 00:04:10,239

houston

51
00:04:14,470 --> 00:04:13,120
victoria crater sediment sample

52
00:04:17,270 --> 00:04:14,480
is marked

53
00:04:19,349 --> 00:04:17,280
m1 how are you feeling

54
00:04:21,270 --> 00:04:19,359
a bit anxious but i think that's to be

55
00:04:22,950 --> 00:04:21,280
expected

56
00:04:25,510 --> 00:04:22,960
understandable

57
00:04:28,870 --> 00:04:25,520
now let's slow that breathing down a bit

58
00:04:30,790 --> 00:04:28,880
we need to get you back to the habitat

59
00:04:32,790 --> 00:04:30,800
talking helps

60
00:04:35,270 --> 00:04:32,800
these tracks get kind of

61
00:04:36,469 --> 00:04:35,280
lonely

62
00:04:38,230 --> 00:04:36,479
copy that

63
00:04:39,590 --> 00:04:38,240

hey gil engineering wants to hear about

64

00:04:43,990 --> 00:04:39,600

her mother mission control would like to

65

00:04:44,000 --> 00:04:48,710

she always told the best stories

66

00:05:00,390 --> 00:04:50,469

did i ever tell you the one about none

67

00:05:04,629 --> 00:05:02,950

your grandfather never would let me take

68

00:05:05,670 --> 00:05:04,639

this necklace off

69

00:05:06,469 --> 00:05:05,680

ever

70

00:05:08,710 --> 00:05:06,479

where

71

00:05:10,790 --> 00:05:08,720

until i need to pass its magic on to

72

00:05:12,629 --> 00:05:10,800

someone has magic

73

00:05:14,710 --> 00:05:12,639

when your grandfather was digging for

74

00:05:16,870 --> 00:05:14,720

sand in the lagoon

75

00:05:19,990 --> 00:05:16,880

it happened what

76

00:05:21,510 --> 00:05:20,000

like now the city was growing bigger

77

00:05:23,350 --> 00:05:21,520

every day

78

00:05:25,749 --> 00:05:23,360

he helped supply the sand needed to make

79

00:05:27,510 --> 00:05:25,759

the concrete where's the magic pad

80

00:05:29,430 --> 00:05:27,520

it's coming

81

00:05:31,110 --> 00:05:29,440

he took his afternoon break at the same

82

00:05:32,950 --> 00:05:31,120

time each day

83

00:05:34,710 --> 00:05:32,960

but this day

84

00:05:37,350 --> 00:05:34,720

was special

85

00:05:40,310 --> 00:05:37,360

when he came down the boat ladder your

86

00:05:44,390 --> 00:05:40,320

grandfather found an oyster shell on the

87

00:05:46,070 --> 00:05:44,400

dock when he finally pried it open he

88

00:05:48,310 --> 00:05:46,080

found

89

00:05:50,230 --> 00:05:48,320

this pair

90

00:05:51,990 --> 00:05:50,240

he said it didn't mean much to him at

91

00:05:55,110 --> 00:05:52,000

the time but what your grandfather did

92

00:05:57,270 --> 00:05:55,120

not know was at the exact moment when he

93

00:05:58,150 --> 00:05:57,280

opened that oyster shell

94

00:05:59,909 --> 00:05:58,160

i

95

00:06:03,350 --> 00:05:59,919

was born

96

00:06:06,790 --> 00:06:03,360

my father said when he first saw me

97

00:06:08,390 --> 00:06:06,800

i was the most beautiful thing he had

98

00:06:09,990 --> 00:06:08,400

ever seen

99

00:06:11,350 --> 00:06:10,000

for a long time your grandmother and

100

00:06:13,189 --> 00:06:11,360

grandfather never thought they would

101
00:06:16,230 --> 00:06:13,199
have any children

102
00:06:19,110 --> 00:06:16,240
but the pel came to him as a sign from

103
00:06:20,950 --> 00:06:19,120
the heavens a sign that his life was

104
00:06:23,430 --> 00:06:20,960
about to change

105
00:06:26,309 --> 00:06:23,440
you see how only

106
00:06:28,870 --> 00:06:26,319
i was his pal

107
00:06:32,950 --> 00:06:28,880
he gave me this to wear every day

108
00:06:35,029 --> 00:06:32,960
to remind me just how much i was love

109
00:06:36,230 --> 00:06:35,039
what's it do mama

110
00:06:39,670 --> 00:06:36,240
the pen

111
00:06:43,749 --> 00:06:39,680
gives you what you want the most what

112
00:06:43,759 --> 00:06:50,390
you

113
00:06:56,870 --> 00:06:54,309

what i wanted most was to see her again

114

00:06:58,469 --> 00:06:56,880

i would spend every night looking up at

115

00:07:00,070 --> 00:06:58,479

the stars for her

116

00:07:01,990 --> 00:07:00,080

imagining that she was that small

117

00:07:04,150 --> 00:07:02,000

flickering red light i would sometimes

118

00:07:06,150 --> 00:07:04,160

see

119

00:07:09,350 --> 00:07:06,160

mama would tell me

120

00:07:12,870 --> 00:07:09,360

tomorrow changes everything

121

00:07:15,430 --> 00:07:12,880

tomorrow is full of possibilities

122

00:07:17,270 --> 00:07:15,440

and that's why we do what we do him one

123

00:07:19,189 --> 00:07:17,280

copy that issn

124

00:07:20,710 --> 00:07:19,199

let's hope today proves that

125

00:07:23,029 --> 00:07:20,720

looking good gil

126
00:07:25,029 --> 00:07:23,039
medical shows a lower heart rate

127
00:07:26,870 --> 00:07:25,039
vital's good

128
00:07:28,230 --> 00:07:26,880
feeling better

129
00:07:31,189 --> 00:07:28,240
i told you

130
00:07:33,990 --> 00:07:31,199
talking helps houston always enjoys a

131
00:07:35,589 --> 00:07:34,000
good story tell us more

132
00:07:37,670 --> 00:07:35,599
a few years after my mother's death

133
00:07:40,950 --> 00:07:37,680
water aiding unicef delivered modern

134
00:07:44,710 --> 00:07:40,960
filtration systems to nigeria

135
00:07:45,990 --> 00:07:44,720
the clean water changed everyone's lives

136
00:07:48,309 --> 00:07:46,000
i would eventually learn the

137
00:07:50,309 --> 00:07:48,319
bioregenerative filtration technology

138
00:07:52,070 --> 00:07:50,319

used in those systems was developed by

139

00:07:53,270 --> 00:07:52,080

nasa that's right

140

00:07:55,510 --> 00:07:53,280

the same process used on the

141

00:07:58,950 --> 00:07:55,520

international space station

142

00:08:00,469 --> 00:07:58,960

it literally came from the heavens

143

00:08:02,950 --> 00:08:00,479

i bet that took some explaining to your

144

00:08:04,230 --> 00:08:02,960

grandfather

145

00:08:05,909 --> 00:08:04,240

actually

146

00:08:07,510 --> 00:08:05,919

a few years later my grandfather

147

00:08:11,749 --> 00:08:07,520

arranged for me to study abroad and live

148

00:08:16,550 --> 00:08:13,510

after the end of the water crisis in

149

00:08:18,790 --> 00:08:16,560

africa nasa fascinated me

150

00:08:20,309 --> 00:08:18,800

from gemini and apollo to the orion

151
00:08:22,790 --> 00:08:20,319
missions

152
00:08:26,309 --> 00:08:22,800
so many people have come together as one

153
00:08:28,550 --> 00:08:26,319
to improve life on earth

154
00:08:30,950 --> 00:08:28,560
to push the boundaries of mankind in the

155
00:08:31,830 --> 00:08:30,960
universe

156
00:08:32,790 --> 00:08:31,840
six

157
00:08:33,670 --> 00:08:32,800
five

158
00:08:34,709 --> 00:08:33,680
four

159
00:08:35,750 --> 00:08:34,719
three

160
00:08:36,870 --> 00:08:35,760
two

161
00:09:00,550 --> 00:08:36,880
one

162
00:09:04,470 --> 00:09:02,310
when i came to nasa and started working

163
00:09:06,389 --> 00:09:04,480

with atmospheric scientists i never

164

00:09:08,150 --> 00:09:06,399

imagined that one day i would be a part

165

00:09:10,310 --> 00:09:08,160

of that legacy

166

00:09:11,829 --> 00:09:10,320

a legacy that would eventually lead me

167

00:09:40,949 --> 00:09:11,839

here

168

00:09:40,959 --> 00:09:49,110

magic

169

00:09:59,910 --> 00:09:52,710

even out here so far from earth

170

00:10:05,750 --> 00:10:01,590

everything that's happened in my life

171

00:10:05,760 --> 00:10:08,389

to my

172

00:10:08,399 --> 00:10:44,870

pearl

173

00:10:51,030 --> 00:10:48,870

tomorrow changes everything

174

00:11:12,630 --> 00:10:51,040

tomorrow is full

175

00:12:48,550 --> 00:11:14,470

i love you

176

00:12:51,670 --> 00:12:50,230

all right rick thanks for all that data