



1  
00:00:17,220 --> 00:00:14,850  
this year the museum is honoring the

2  
00:00:18,769 --> 00:00:17,230  
40th anniversary of the Apollo 8 mission

3  
00:00:22,760 --> 00:00:18,779  
and the accomplishments of its crew

4  
00:00:25,230 --> 00:00:22,770  
Frank Borman Jim Lovell and Bill Anders

5  
00:00:27,120 --> 00:00:25,240  
not just because of the occasion tonight

6  
00:00:28,740 --> 00:00:27,130  
but I've said this repeatedly I think

7  
00:00:32,130 --> 00:00:28,750  
the Apollo 8 mission is one of the most

8  
00:00:35,070 --> 00:00:32,140  
important missions of the whole NASA

9  
00:00:36,720 --> 00:00:35,080  
experience and I don't say that just

10  
00:00:38,580 --> 00:00:36,730  
because we're here tonight it was a very

11  
00:00:42,119 --> 00:00:38,590  
very unusual mission about which will

12  
00:00:44,660 --> 00:00:42,129  
hear a lot later on the mission departed

13  
00:00:48,270 --> 00:00:44,670

December 21st and returned December 28

14

00:00:51,390 --> 00:00:48,280

1968 he was the first time that humans

15

00:00:55,110 --> 00:00:51,400

left the vicinity of Earth and traveled

16

00:00:57,360 --> 00:00:55,120

to another world and i think the things

17

00:00:59,070 --> 00:00:57,370

that will have will hear them describe

18

00:01:00,960 --> 00:00:59,080

this evening will show what faith they

19

00:01:02,460 --> 00:01:00,970

had in the engineers and the people they

20

00:01:04,410 --> 00:01:02,470

were working with and the crew and the

21

00:01:07,440 --> 00:01:04,420

team and the equipment and everything

22

00:01:09,450 --> 00:01:07,450

else and we will be hearing a great deal

23

00:01:12,380 --> 00:01:09,460

about the mission but let me just set

24

00:01:16,529 --> 00:01:12,390

the stage with a few historical facts

25

00:01:19,740 --> 00:01:16,539

Apollo 8 was not originally planned as a

26  
00:01:22,590 --> 00:01:19,750  
moon mission NASA's plan was to do an

27  
00:01:26,069 --> 00:01:22,600  
earth orbital mission but in September

28  
00:01:29,010 --> 00:01:26,079  
1968 the Soviets ends on 52 pass by the

29  
00:01:31,740 --> 00:01:29,020  
moon it carried and returned to earth a

30  
00:01:34,679 --> 00:01:31,750  
payload of turtles wine flies and

31  
00:01:36,539 --> 00:01:34,689  
mealworms now that's quite a character

32  
00:01:40,349 --> 00:01:36,549  
now I don't know there's a similarity

33  
00:01:42,929 --> 00:01:40,359  
between those three types of cargos and

34  
00:01:45,149 --> 00:01:42,939  
the ones that occurred later on when the

35  
00:01:46,620 --> 00:01:45,159  
u.s. sent them up or not but Borman

36  
00:01:48,599 --> 00:01:46,630  
Lovell and Anders were a step up from

37  
00:01:52,800 --> 00:01:48,609  
Turtles wine flies and mealworms there's

38  
00:01:54,330 --> 00:01:52,810

no doubt about that and it carried when

39

00:01:56,760 --> 00:01:54,340

it brought them back to earth of course

40

00:02:00,239 --> 00:01:56,770

the USSR repeated the feat in November

41

00:02:02,010 --> 00:02:00,249

was on six the space race competition at

42

00:02:04,739 --> 00:02:02,020

land humans on the moon the goal set by

43

00:02:07,739 --> 00:02:04,749

president kennedy in 61 seem to be

44

00:02:09,570 --> 00:02:07,749

heating up considerably and after the

45

00:02:12,030 --> 00:02:09,580

successful earth orbit mission of Apollo

46

00:02:14,869 --> 00:02:12,040

7 the time seemed right for a boulder or

47

00:02:18,360 --> 00:02:14,879

risk your mission a voyage to the moon

48

00:02:19,850 --> 00:02:18,370

reportedly even the Apollo 8 astronauts

49

00:02:22,880 --> 00:02:19,860

rated their chances of

50

00:02:25,910 --> 00:02:22,890

said no better than 5050 they're willing

51  
00:02:30,020 --> 00:02:25,920  
to go before Apollo 8 the u.s. had flown

52  
00:02:33,440 --> 00:02:30,030  
only 17 missions in space only 17 and

53  
00:02:35,870 --> 00:02:33,450  
only 22 different astronauts before that

54  
00:02:38,600 --> 00:02:35,880  
had gained space flight experience of

55  
00:02:41,570 --> 00:02:38,610  
those Apollo 8 commander Frank Borman

56  
00:02:43,400 --> 00:02:41,580  
and command module pilot Jim Lovell had

57  
00:02:46,670 --> 00:02:43,410  
flown more hours than any other

58  
00:02:48,890 --> 00:02:46,680  
astronauts indeed together they had more

59  
00:02:52,100 --> 00:02:48,900  
hours than all Soviet cosmonauts

60  
00:02:54,350 --> 00:02:52,110  
combined they flew together on Gemini 7

61  
00:02:56,300 --> 00:02:54,360  
a two-week endurance test in which they

62  
00:02:59,390 --> 00:02:56,310  
lived together in a cabin the size of a

63  
00:03:01,340 --> 00:02:59,400

Volkswagen Beetle after recovery Jim

64

00:03:05,930 --> 00:03:01,350

Lovell joked I want to announce our

65

00:03:07,970 --> 00:03:05,940

engagement it's my understanding to from

66

00:03:09,740 --> 00:03:07,980

rumors going around that the sanitary

67

00:03:15,290 --> 00:03:09,750

conditions would not have passed ocean

68

00:03:17,000 --> 00:03:15,300

minimums they were ready for Apollo 8 so

69

00:03:19,640 --> 00:03:17,010

too was Bill Anders William Anders

70

00:03:21,560 --> 00:03:19,650

making his very first light grads with

71

00:03:23,090 --> 00:03:21,570

the Naval Academy and experienced pilot

72

00:03:25,880 --> 00:03:23,100

recipient of a master's degree in

73

00:03:27,080 --> 00:03:25,890

nuclear engineering he served as lunar

74

00:03:28,789 --> 00:03:27,090

module pilot for the mission

75

00:03:31,520 --> 00:03:28,799

unfortunately for him the mission did

76

00:03:33,580 --> 00:03:31,530

not carry a lunar module engineering

77

00:03:36,620 --> 00:03:33,590

problems had delayed its availability

78

00:03:38,930 --> 00:03:36,630

but then this next statement may be a

79

00:03:41,600 --> 00:03:38,940

little bit controversial to some of the

80

00:03:44,180 --> 00:03:41,610

crew beside Bill Anders but as Apollo 8

81

00:03:45,770 --> 00:03:44,190

orbited the moon bill had to be content

82

00:03:47,630 --> 00:03:45,780

with making one of the most historic

83

00:03:49,580 --> 00:03:47,640

photographs of the 20th century the

84

00:03:52,220 --> 00:03:49,590

incomparable image of the earth rising

85

00:03:55,340 --> 00:03:52,230

over the lunar surface there'll be a

86

00:03:57,740 --> 00:03:55,350

little contention on that perhaps the

87

00:04:01,300 --> 00:03:57,750

public build-up to Apollo 8 was

88

00:04:04,610 --> 00:04:01,310

tremendous a worldwide audience

89

00:04:06,050 --> 00:04:04,620

anticipated the mission lost just before

90

00:04:07,699 --> 00:04:06,060

the Christmas holidays the mission

91

00:04:10,310 --> 00:04:07,709

ballast the tension of the space race

92

00:04:12,199 --> 00:04:10,320

with a transcendent feeling that the

93

00:04:15,500 --> 00:04:12,209

accomplishment was truly for all

94

00:04:17,259 --> 00:04:15,510

humanity live television broadcast by

95

00:04:19,460 --> 00:04:17,269

the astronauts while orbiting the moon

96

00:04:22,130 --> 00:04:19,470

brought the adventure to almost a

97

00:04:25,520 --> 00:04:22,140

quarter of all people living on earth by

98

00:04:27,950 --> 00:04:25,530

best estimates and the very memorable

99

00:04:29,420 --> 00:04:27,960

Christmas Eve scripture reading is

100

00:04:31,339 --> 00:04:29,430

something that none of us had heard that

101  
00:04:31,959 --> 00:04:31,349  
at that time I including many of you

102  
00:04:35,559 --> 00:04:31,969  
here

103  
00:04:37,329 --> 00:04:35,569  
will ever ever forget the success of the

104  
00:04:41,350 --> 00:04:37,339  
mission paved the way a few months later

105  
00:04:43,539 --> 00:04:41,360  
for Apollo 11 for neo buzz Mike going to

106  
00:04:45,369 --> 00:04:43,549  
the moon landing of humans on the moon

107  
00:04:48,279 --> 00:04:45,379  
fulfilling President Kennedy's challenge

108  
00:04:50,679 --> 00:04:48,289  
to the nation so it's really my pleasure

109  
00:04:52,839 --> 00:04:50,689  
not only to be here tonight but to look

110  
00:04:54,999 --> 00:04:52,849  
forward to hearing some of the

111  
00:04:57,789 --> 00:04:55,009  
recounting of what happened on Apollo 8

112  
00:05:00,549 --> 00:04:57,799  
it's my pleasure to welcome the Apollo 8

113  
00:05:02,559 --> 00:05:00,559

astronauts and dr. Martin Collins

114

00:05:22,830 --> 00:05:02,569

curator in the museum's division of

115

00:05:29,200 --> 00:05:26,200

maybe a place to begin here is to ask

116

00:05:31,450 --> 00:05:29,210

Frank to to to give us a little bit of a

117

00:05:34,990 --> 00:05:31,460

sense of how the idea for the Apollo 8

118

00:05:37,720 --> 00:05:35,000

mission began on how it sort of took

119

00:05:42,190 --> 00:05:37,730

shape in the months of the summer months

120

00:05:44,020 --> 00:05:42,200

of 1968 Thank You Martin and thank you

121

00:05:47,890 --> 00:05:44,030

all for being here John for your

122

00:05:51,490 --> 00:05:47,900

generous introduction I we were assigned

123

00:05:55,210 --> 00:05:51,500

to the excuse me third Apollo mission

124

00:05:57,850 --> 00:05:55,220

was supposed to been a a long duration

125

00:05:59,350 --> 00:05:57,860

relatively long durations exercising the

126  
00:06:02,200 --> 00:05:59,360  
lunar module and command module and

127  
00:06:04,480 --> 00:06:02,210  
Earth orbit out to 8,000 miles and then

128  
00:06:07,800 --> 00:06:04,490  
in December while we were out at at

129  
00:06:10,120 --> 00:06:07,810  
downey california going through the

130  
00:06:13,270 --> 00:06:10,130  
systems with the spacecraft i got a call

131  
00:06:16,630 --> 00:06:13,280  
from deke slayton our boss who said come

132  
00:06:19,180 --> 00:06:16,640  
back we've had a change in plans and he

133  
00:06:22,060 --> 00:06:19,190  
formed me that the CIA had informed NASA

134  
00:06:23,740 --> 00:06:22,070  
that they would be a probably be a

135  
00:06:25,690 --> 00:06:23,750  
Soviet attempt to go around the moon

136  
00:06:27,460 --> 00:06:25,700  
before the end of the year and they

137  
00:06:28,690 --> 00:06:27,470  
wanted to know if we could this was in

138  
00:06:31,540 --> 00:06:28,700

August they want to know if we could

139

00:06:34,750 --> 00:06:31,550

change our mission training and be able

140

00:06:36,490 --> 00:06:34,760

to go I immediately said yes because I

141

00:06:38,440 --> 00:06:36,500

knew that billing and Jim would have a

142

00:06:40,690 --> 00:06:38,450

you know we're dying for the chance to

143

00:06:42,910 --> 00:06:40,700

do this and then we came back and and

144

00:06:45,580 --> 00:06:42,920

we've had the outline of what happened

145

00:06:49,780 --> 00:06:45,590

after that but interestingly enough the

146

00:06:51,550 --> 00:06:49,790

the saga of Apollo 8 really should begin

147

00:06:55,420 --> 00:06:51,560

of Apollo program should begin with a

148

00:06:57,160 --> 00:06:55,430

fire in January of 1967 to kill three

149

00:07:01,000 --> 00:06:57,170

astronauts through the whole program

150

00:07:04,210 --> 00:07:01,010

into disarray and out of that out of

151  
00:07:07,600 --> 00:07:04,220  
that terrible tragedy I'm convinced came

152  
00:07:10,090 --> 00:07:07,610  
the the genesis of Apollo program that

153  
00:07:13,120 --> 00:07:10,100  
was so successful part of the decision

154  
00:07:15,640 --> 00:07:13,130  
that was made when Frank went to Houston

155  
00:07:17,890 --> 00:07:15,650  
and Bill a man bill and I were still out

156  
00:07:22,420 --> 00:07:17,900  
at downey wondering what happened to

157  
00:07:24,960 --> 00:07:22,430  
Frank was the fact that the decision

158  
00:07:29,110 --> 00:07:24,970  
would go on Apollo 8 to the moon if

159  
00:07:32,140 --> 00:07:29,120  
Apollo 7 was successful so in reality

160  
00:07:34,540 --> 00:07:32,150  
that flight proved the improvements

161  
00:07:37,780 --> 00:07:34,550  
of the command module from the

162  
00:07:40,300 --> 00:07:37,790  
disastrous fire that we had in 1967 and

163  
00:07:43,660 --> 00:07:40,310

that was the spur that allowed us to

164

00:07:46,030 --> 00:07:43,670

make that final decision after Apollo 7

165

00:07:48,100 --> 00:07:46,040

to say yes let's go although we were

166

00:07:51,310 --> 00:07:48,110

training for the moon or lunar mission

167

00:07:53,410 --> 00:07:51,320

prior to the Apollo 7 flight and that

168

00:07:55,930 --> 00:07:53,420

flight was successful because Frank you

169

00:07:59,530 --> 00:07:55,940

know spend an awful lot of time making

170

00:08:02,380 --> 00:07:59,540

sure that command module was safe you

171

00:08:04,480 --> 00:08:02,390

know John was awful generous and saying

172

00:08:06,790 --> 00:08:04,490

how important Apollo it wasn't then and

173

00:08:08,860 --> 00:08:06,800

then bill just mentioned Apollo 7 being

174

00:08:10,810 --> 00:08:08,870

so important but in reality every damn

175

00:08:12,640 --> 00:08:10,820

flight was important you know think

176

00:08:17,190 --> 00:08:12,650

think of John Glenn sitting on top of an

177

00:08:19,450 --> 00:08:17,200

ICBM really an aluminum inner tube

178

00:08:21,190 --> 00:08:19,460

because it wouldn't it wouldn't hold it

179

00:08:22,240 --> 00:08:21,200

without air is not correct you had to

180

00:08:25,750 --> 00:08:22,250

have pressure in that thing I get a

181

00:08:27,880 --> 00:08:25,760

clamp so NASA's program wasn't haphazard

182

00:08:30,250 --> 00:08:27,890

it didn't just it didn't just happen it

183

00:08:32,470 --> 00:08:30,260

was planned every step of the way and it

184

00:08:35,200 --> 00:08:32,480

was remarkable oh that it worked I think

185

00:08:36,790 --> 00:08:35,210

I honestly believe that God was was

186

00:08:39,240 --> 00:08:36,800

shining on us from there from the very

187

00:08:42,670 --> 00:08:39,250

beginning we had to start learning the

188

00:08:45,700 --> 00:08:42,680

the lunar surface of the Moon stop

189

00:08:47,080 --> 00:08:45,710

ography to see the various craters and

190

00:08:48,940 --> 00:08:47,090

this is one of interesting because we

191

00:08:51,610 --> 00:08:48,950

brought in people who were familiar with

192

00:08:53,980 --> 00:08:51,620

that to teach us some of the initial

193

00:08:58,060 --> 00:08:53,990

points because the mission of Apollo II

194

00:09:01,480 --> 00:08:58,070

was really to check the navigation and

195

00:09:03,430 --> 00:09:01,490

to check for suitable landing spots the

196

00:09:06,190 --> 00:09:03,440

flat areas the Mari of the sea that

197

00:09:07,960 --> 00:09:06,200

would give the people who would attempt

198

00:09:10,030 --> 00:09:07,970

the first landing the greatest chance of

199

00:09:12,250 --> 00:09:10,040

survival and consequently our

200

00:09:14,230 --> 00:09:12,260

photography and looking around all those

201

00:09:17,830 --> 00:09:14,240

flat areas like the Sea of Tranquility

202

00:09:20,230 --> 00:09:17,840

which model 11 eventually landed on that

203

00:09:23,260 --> 00:09:20,240

that was one of our missions and that

204

00:09:26,500 --> 00:09:23,270

was part of our training and also we had

205

00:09:29,140 --> 00:09:26,510

to do things that in a three-dimensional

206

00:09:30,460 --> 00:09:29,150

effect navigation was one of them

207

00:09:32,860 --> 00:09:30,470

because we are not going around the

208

00:09:36,160 --> 00:09:32,870

earth anymore we are going to have to

209

00:09:38,980 --> 00:09:36,170

test out of the navigation system on the

210

00:09:41,110 --> 00:09:38,990

way to the moon to say how accurate it