

A low-angle shot of the Artemis I rocket on the Mobile Launcher Platform (MLP) being moved by a crawler-transporter. The MLP is a large, dark grey structure with a red banner that says "ARTEMIS" and an American flag. The rocket is white with a large orange boosters section. The background is a clear blue sky with a soft sunset or sunrise glow on the left side.

PATH TO THE PAD
ARTEMIS I
EPISODE FOUR: LAUNCH & RECOVERY

ARTEMIS



1
00:00:08,210 --> 00:00:04,910
what President Kennedy said was we

2
00:00:12,230 --> 00:00:08,220
choose to go to the moon and do other

3
00:00:15,289 --> 00:00:12,240
things not because it's easy but because

4
00:00:18,650 --> 00:00:15,299
it's hard the cost of failure is much

5
00:00:21,830 --> 00:00:18,660
higher than the cost of scrubbing we we

6
00:00:24,470 --> 00:00:21,840
have an obligation to get this right

7
00:00:27,950 --> 00:00:24,480
this is a whole new vehicle a whole new

8
00:00:31,009 --> 00:00:27,960
technology a whole new purpose

9
00:00:35,150 --> 00:00:31,019
of going back to the Moon in preparation

10
00:00:35,160 --> 00:00:38,170
it's hard

11
00:00:42,830 --> 00:00:40,130
[Music]

12
00:00:44,889 --> 00:00:42,840
the countdown to T minus zero starts

13
00:00:47,150 --> 00:00:44,899

approximately two days before lunch

14

00:00:48,830 --> 00:00:47,160

teams inside the launch control center

15

00:00:51,290 --> 00:00:48,840

have been working around the clock

16

00:00:53,150 --> 00:00:51,300

powering up each section of the rocket

17

00:00:55,790 --> 00:00:53,160

and configuring the launch pad to

18

00:00:58,430 --> 00:00:55,800

support the 8.8 million pounds of thrust

19

00:01:01,490 --> 00:00:58,440

our moon rocket will generate at liftoff

20

00:01:04,009 --> 00:01:01,500

it is a new creation it is a new rocket

21

00:01:05,030 --> 00:01:04,019

in a new spacecraft to send humans to

22

00:01:08,149 --> 00:01:05,040

the Moon

23

00:01:10,850 --> 00:01:08,159

on the very next flight

24

00:01:12,830 --> 00:01:10,860

today we make history

25

00:01:15,710 --> 00:01:12,840

with the launch of the most powerful

26

00:01:17,810 --> 00:01:15,720

rocket the world has ever seen we are

27

00:01:20,090 --> 00:01:17,820

taking the first step in Humanity's

28

00:01:21,530 --> 00:01:20,100

Return To The Moon I can tell you

29

00:01:23,690 --> 00:01:21,540

there's an energy and there's an

30

00:01:26,330 --> 00:01:23,700

excitement around the Kennedy Space Center

31

00:01:28,249 --> 00:01:26,340

I would say across the agency and all

32

00:01:30,830 --> 00:01:28,259

around the Space Coast as we get closer

33

00:01:32,630 --> 00:01:30,840

and closer to this launch

34

00:01:34,429 --> 00:01:32,640

this Mission will validate that the

35

00:01:37,010 --> 00:01:34,439

rocket and capsule do perform as

36

00:01:40,550 --> 00:01:37,020

expected before future Artemis missions

37

00:01:43,030 --> 00:01:40,560

send astronauts to the lunar surface

38

00:01:45,530 --> 00:01:43,040

we have worked really hard to get here

39

00:01:48,710 --> 00:01:45,540

the team has done an absolutely

40

00:01:50,030 --> 00:01:48,720

outstanding job and we're up to the

41

00:01:51,950 --> 00:01:50,040

challenge and I'm really looking forward

42

00:01:53,749 --> 00:01:51,960

to a successful test flight

43

00:01:55,789 --> 00:01:53,759

you are looking at the world's most

44

00:01:59,870 --> 00:01:55,799

powerful rocket and Orion spacecraft

45

00:02:02,389 --> 00:01:59,880

live on Launchpad 39b Artemis 1 embodies

46

00:02:04,910 --> 00:02:02,399

the hard work of thousands across the

47

00:02:06,590 --> 00:02:04,920

world determined to explore for the

48

00:02:08,870 --> 00:02:06,600

benefit of all I'm Megan Cruz and this

49

00:02:10,850 --> 00:02:08,880

is or not Caleb Aaron when I first

50

00:02:13,070 --> 00:02:10,860

walked up and saw the view from the desk

51
00:02:15,470 --> 00:02:13,080
here I was just blown away this is the

52
00:02:17,690 --> 00:02:15,480
moment when it comes to the countdown

53
00:02:20,449 --> 00:02:17,700
you know and then tension starts and

54
00:02:22,250 --> 00:02:20,459
well less Crossing us everything works

55
00:02:24,650 --> 00:02:22,260
well yeah tension is rising and we are

56
00:02:26,809 --> 00:02:24,660
fully excited here over the past few

57
00:02:28,850 --> 00:02:26,819
years teams have put in thousands of

58
00:02:30,710 --> 00:02:28,860
hours performing simulations and

59
00:02:33,530 --> 00:02:30,720
rehearsals to ensure that they are ready

60
00:02:37,070 --> 00:02:33,540
for this moment is our Zero Hour

61
00:02:39,290 --> 00:02:37,080
approaches for the Artemis generation we

62
00:02:41,030 --> 00:02:39,300
do have a heightened sense of

63
00:02:42,410 --> 00:02:41,040

anticipation and there's definitely

64

00:02:45,830 --> 00:02:42,420

excitement amongst the team members

65

00:02:48,530 --> 00:02:45,840

we've noticed just the overall mood and

66

00:02:50,630 --> 00:02:48,540

focus within the team is is definitely a

67

00:02:52,790 --> 00:02:50,640

positive one

68

00:02:55,130 --> 00:02:52,800

now with all systems configured

69

00:02:58,309 --> 00:02:55,140

correctly the launch director gives the

70

00:02:59,990 --> 00:02:58,319

final go for liftoff

71

00:03:02,150 --> 00:03:00,000

on behalf of all the men and women

72

00:03:05,030 --> 00:03:02,160

across our great nation who have worked

73

00:03:07,490 --> 00:03:05,040

to bring this Hardware together to make

74

00:03:09,650 --> 00:03:07,500

this day possible and for the Artemis

75

00:03:11,930 --> 00:03:09,660

generation this is for you

76
00:03:14,930 --> 00:03:11,940
at this time I give you a go to resume

77
00:03:17,449 --> 00:03:14,940
count and launch Artemis one

78
00:03:22,790 --> 00:03:17,459
this Mission goes with a lot of hopes

79
00:03:29,210 --> 00:03:25,490
it's no longer the Apollo generation

80
00:03:33,890 --> 00:03:29,220
it's the Artemis generation

81
00:03:36,710 --> 00:03:33,900
that brings a whole new world of

82
00:03:42,470 --> 00:03:39,890
T-minus 50 seconds and counting the

83
00:03:44,869 --> 00:03:42,480
space launch system is now counting down

84
00:03:48,560 --> 00:03:44,879
to liftoff of Orion on its bait Voyage

85
00:03:48,570 --> 00:04:16,729
[Music]

86
00:04:24,469 --> 00:04:19,670
and here we go okay hydrogen burnoff

87
00:04:29,689 --> 00:04:24,479
igniters initiate seven six five four

88
00:04:38,110 --> 00:04:32,749

and liftoff of Artemis one we rise

89

00:04:38,120 --> 00:04:44,270

all right

90

00:04:44,280 --> 00:04:50,570

[Music]

91

00:04:50,580 --> 00:05:24,880

foreign

92

00:06:30,490 --> 00:05:37,920

[Music]

93

00:06:35,510 --> 00:06:33,230

Space Center where we just watched

94

00:06:37,730 --> 00:06:35,520

Artemis one launch our first step

95

00:06:39,890 --> 00:06:37,740

towards our next adventure into deep

96

00:06:42,650 --> 00:06:39,900

space with Orion off the ground mission

97

00:06:45,110 --> 00:06:42,660

control in Houston takes the reins our

98

00:06:47,210 --> 00:06:45,120

nation is returning to the moon and we

99

00:06:49,570 --> 00:06:47,220

have worked hard as a team you guys have

100

00:06:54,080 --> 00:06:49,580

worked hard as a team for this moment

101

00:07:02,230 --> 00:06:54,090

this is your moment

102

00:07:08,390 --> 00:07:05,510

it is not by chance that you were here

103

00:07:11,629 --> 00:07:08,400

today so I want you to look around look

104

00:07:13,730 --> 00:07:11,639

around at this team and know that you

105

00:07:17,629 --> 00:07:13,740

have earned it you have earned your

106

00:07:18,850 --> 00:07:17,639

place in the room you've earned

107

00:07:22,850 --> 00:07:18,860

earn your place

108

00:07:27,770 --> 00:07:25,850

the successful launch of SLS is just the

109

00:07:30,409 --> 00:07:27,780

beginning Orion will spend the next

110

00:07:32,930 --> 00:07:30,419

several weeks journeying around the Moon

111

00:07:39,350 --> 00:07:32,940

sending flight data back to teams here

112

00:07:44,330 --> 00:07:41,809

during its Mission Orion reached speeds

113

00:07:47,390 --> 00:07:44,340

traveling about 30 times as fast as the

114

00:07:52,550 --> 00:07:49,370

this dramatic

115

00:07:53,870 --> 00:07:52,560

video of the Earth Moon Transit that

116

00:07:55,909 --> 00:07:53,880

took place

117

00:07:58,370 --> 00:07:55,919

showed

118

00:08:01,010 --> 00:07:58,380

and punctuated

119

00:08:04,029 --> 00:08:01,020

the fact that we were pressing away from

120

00:08:06,589 --> 00:08:04,039

our home planet to a distance of some

121

00:08:08,689 --> 00:08:06,599

268 thousand miles away from Earth

122

00:08:11,390 --> 00:08:08,699

further than any human rated spacecraft

123

00:08:13,610 --> 00:08:11,400

had ever traveled

124

00:08:16,790 --> 00:08:13,620

for a spacecraft designed to return

125

00:08:23,570 --> 00:08:16,800

humans to Earth eclipsing the mark set

126

00:08:28,850 --> 00:08:26,029

after several weeks of flight it was

127

00:08:30,890 --> 00:08:28,860

time for Orion to return home a half

128

00:08:33,889 --> 00:08:30,900

century later NASA's newest moon

129

00:08:35,870 --> 00:08:33,899

Explorer the Orion spacecraft is

130

00:08:38,149 --> 00:08:35,880

barreling its way back home after

131

00:08:44,570 --> 00:08:38,159

circumnavigating the moon and Beyond in

132

00:08:49,850 --> 00:08:47,090

now less than two hours away from

133

00:08:52,430 --> 00:08:49,860

splashing down in the Pacific Ocean West

134

00:08:53,680 --> 00:08:52,440

of Baja California to complete its

135

00:08:58,310 --> 00:08:53,690

Shakedown mission

136

00:09:02,329 --> 00:09:00,110

like the Apollo missions of the past

137

00:09:04,250 --> 00:09:02,339

Orion will have to endure incredibly

138

00:09:05,810 --> 00:09:04,260

high temperatures during re-entry of

139

00:09:09,290 --> 00:09:05,820

Earth's atmosphere

140

00:09:11,509 --> 00:09:09,300

a journey that began with the power of

141

00:09:13,389 --> 00:09:11,519

the launch of the space launch system 25

142

00:09:17,449 --> 00:09:13,399

and a half days ago

143

00:09:19,430 --> 00:09:17,459

about to reach its final minutes in the

144

00:09:21,410 --> 00:09:19,440

Searing heat of re-entry where

145

00:09:24,710 --> 00:09:21,420

temperatures around Orion will build up

146

00:09:26,690 --> 00:09:24,720

to 5 000 degrees Fahrenheit while

147

00:09:29,509 --> 00:09:26,700

re-entering Earth's atmosphere the

148

00:09:33,170 --> 00:09:29,519

spacecraft slowed to about 300 miles per

149

00:09:35,930 --> 00:09:33,180

hour as it continued its descent Orion's

150

00:09:37,970 --> 00:09:35,940

parachute system containing 11 total

151
00:09:40,250 --> 00:09:37,980
parachutes deployed once it reached

152
00:09:43,490 --> 00:09:40,260
approximately nine thousand feet and a

153
00:09:45,650 --> 00:09:43,500
speed of about 130 miles per hour and

154
00:09:48,050 --> 00:09:45,660
there it is high over the Pacific

155
00:09:51,170 --> 00:09:48,060
America's new Ticket to Ride To the Moon

156
00:09:54,769 --> 00:09:51,180
and Beyond now in view Orion under its

157
00:09:57,170 --> 00:09:54,779
shoots descending towards Splashdown

158
00:09:59,449 --> 00:09:57,180
these parachutes help slow the crew

159
00:10:02,630 --> 00:09:59,459
module to a much more manageable speed

160
00:10:06,050 --> 00:10:02,640
roughly 20 miles per hour for a water

161
00:10:09,590 --> 00:10:07,850
Splashdown

162
00:10:12,350 --> 00:10:09,600
[Music]

163
00:10:14,509 --> 00:10:12,360

from Tranquility base to Taurus litro to

164

00:10:16,430 --> 00:10:14,519

the trifling Waters of the Pacific the

165

00:10:20,389 --> 00:10:16,440

latest chapter of NASA's Journey to the

166

00:10:33,889 --> 00:10:20,399

moon comes to a close Orion back on

167

00:10:33,899 --> 00:10:41,230

laughs

168

00:10:46,790 --> 00:10:44,269

we've got a perfect view a front row

169

00:10:50,090 --> 00:10:46,800

seat to the Orion Splashdown and it's

170

00:10:52,970 --> 00:10:50,100

simply beautiful out here

171

00:10:55,970 --> 00:10:52,980

that is a human rated capsule that went

172

00:10:58,250 --> 00:10:55,980

around the moon and returned and is now

173

00:10:59,449 --> 00:10:58,260

in the Pacific Ocean I think I can speak

174

00:11:01,190 --> 00:10:59,459

from the whole dive team that we're

175

00:11:03,350 --> 00:11:01,200

honored to be part of history and to be

176
00:11:05,690 --> 00:11:03,360
part of something so monumentous and

177
00:11:07,009 --> 00:11:05,700
just ready just ready and excited to go

178
00:11:09,470 --> 00:11:07,019
out and do this

179
00:11:11,690 --> 00:11:09,480
when Orion was deemed safe to approach

180
00:11:13,550 --> 00:11:11,700
team members jumped into the water and

181
00:11:16,069 --> 00:11:13,560
attached Hardware that's steady to the

182
00:11:18,050 --> 00:11:16,079
capsule well we knew at Nasa really is

183
00:11:19,970 --> 00:11:18,060
all about collaborations and the

184
00:11:22,550 --> 00:11:19,980
collaborations that we've had with the

185
00:11:25,430 --> 00:11:22,560
Department of Defense in particular over

186
00:11:28,009 --> 00:11:25,440
the past uh many many years their hard

187
00:11:30,430 --> 00:11:28,019
work and their dedication as they went

188
00:11:34,190 --> 00:11:30,440

through a great deal of planning

189

00:11:36,110 --> 00:11:34,200

Hardware development and processes and a

190

00:11:39,949 --> 00:11:36,120

lot of practicing to get to this point

191

00:11:44,210 --> 00:11:42,350

and that team made of a combination of

192

00:11:46,490 --> 00:11:44,220

NASA and Department of Defense personnel

193

00:11:48,829 --> 00:11:46,500

has put in years of work to make sure

194

00:11:51,110 --> 00:11:48,839

that they were ready Melissa Jones the

195

00:11:53,449 --> 00:11:51,120

recovery director just uh came from

196

00:11:55,630 --> 00:11:53,459

outside the ship's control center where

197

00:11:58,610 --> 00:11:55,640

she was monitoring and of course

198

00:12:00,710 --> 00:11:58,620

managing her team in the midst of this

199

00:12:02,870 --> 00:12:00,720

recovery so Melissa thank you for being

200

00:12:04,550 --> 00:12:02,880

here thank you for having me it's been a

201
00:12:06,170 --> 00:12:04,560
long time coming we've been working this

202
00:12:08,030 --> 00:12:06,180
mission for a while and we've done a ton

203
00:12:10,190 --> 00:12:08,040
of training and every time you do

204
00:12:12,110 --> 00:12:10,200
training with a mock-up capsule you

205
00:12:14,449 --> 00:12:12,120
don't have any of that you don't have

206
00:12:15,889 --> 00:12:14,459
parachutes you don't you know hear it

207
00:12:17,449 --> 00:12:15,899
coming back to the atmosphere the Sonic

208
00:12:20,690 --> 00:12:17,459
booms and all that kind of stuff and

209
00:12:26,810 --> 00:12:20,700
today that actually happened it's just

210
00:12:26,820 --> 00:12:35,810
foreign

211
00:12:40,550 --> 00:12:38,090
you know this Mission the spacecraft and

212
00:12:42,949 --> 00:12:40,560
this team exceeded all expectations for

213
00:12:45,110 --> 00:12:42,959

the last 25 and a half days we've been

214

00:12:48,650 --> 00:12:45,120

every day looking ahead to the next

215

00:12:51,590 --> 00:12:48,660

flight to see how we can improve on

216

00:12:53,090 --> 00:12:51,600

where we are today so that we can fly a

217

00:12:58,550 --> 00:12:53,100

safe and successful Mission with our

218

00:13:02,690 --> 00:13:01,129

once stabilized the team secured the

219

00:13:04,790 --> 00:13:02,700

spacecraft with hardware and rope

220

00:13:07,850 --> 00:13:04,800

assemblies and towed it to the Navy ship

221

00:13:10,009 --> 00:13:07,860

the dive team then connected Orion to a

222

00:13:12,530 --> 00:13:10,019

series of ropes from inside the back of

223

00:13:14,629 --> 00:13:12,540

the ship known as The Well deck to

224

00:13:26,829 --> 00:13:14,639

safely and securely pull the capsule

225

00:13:31,970 --> 00:13:29,690

with Orion safely secured inside the

226

00:13:33,889 --> 00:13:31,980

ship teams made their way to Naval Base

227

00:13:35,629 --> 00:13:33,899

San Diego where the capsule was

228

00:13:37,730 --> 00:13:35,639

offloaded and prepped for its

229

00:13:39,590 --> 00:13:37,740

cross-country trip back to its home base

230

00:13:42,230 --> 00:13:39,600

Kennedy Space Center

231

00:13:46,250 --> 00:13:42,240

this is really the start of a campaign

232

00:13:48,829 --> 00:13:46,260

of several missions to to get humans

233

00:13:50,509 --> 00:13:48,839

back to the moon and Beyond to Mars so

234

00:13:52,069 --> 00:13:50,519

there's still a lot to be done and and

235

00:13:53,870 --> 00:13:52,079

this is just the beginning

236

00:13:58,370 --> 00:13:53,880

Kennedy

237

00:14:00,769 --> 00:13:58,380

to stunned everybody with the Apollo

238

00:14:03,710 --> 00:14:00,779

this nation should commit itself to

239

00:14:05,870 --> 00:14:03,720

achieving the goal before this decade is

240

00:14:09,230 --> 00:14:05,880

out and said that we were going to

241

00:14:11,210 --> 00:14:09,240

achieve what we thought was impossible

242

00:14:13,670 --> 00:14:11,220

of Landing a man on the moon and

243

00:14:16,370 --> 00:14:13,680

returning him safely to the Earth many

244

00:14:19,129 --> 00:14:16,380

things have happened since but we knew

245

00:14:21,769 --> 00:14:19,139

we were going back this is the the

246

00:14:26,210 --> 00:14:21,779

program of going back to the Moon to

247

00:14:30,050 --> 00:14:26,220

learn to live to invent to create in

248

00:14:33,470 --> 00:14:30,060

order to explore Beyond oh it's it's a