1
00:00:00,022 --> 00:00:13,152
[Bugle music plays]

2
00:00:13,153 --> 00:00:17,232
This is The Big Picture, an official
television report of the United

3
00:00:17,232 --> 00:00:22,371
States Army, produced by the Armed
Forces and the American people.

4
00:00:22,393 --> 00:00:31,324
Now, to show you part of the big picture,
here is Master Sergeant Stuart Queen.

5
00:00:31,324 --> 00:00:40,016
At 10:48 PM Easter Standard
Time on January 31, 1958,

6
00:00:40,016 --> 00:00:45,123
the attention of the American people
was focused on Cape Canaveral,

7
00:00:45,123 --> 00:00:50,229
Florida as a giant rocket was
catapulted toward outer space. Few

8
00:00:50,229 --> 00:00:55,313
events in American history have
been so awakened, prayed for,

9
00:00:55,313 --> 00:01:01,130
worked for, as the Army successful
launching of Explorer I.

10
00:01:01,217 --> 00:01:06,130
Today’s big picture will reveal the
dramatic, suspenseful story of how

11

00:01:06,130 --> 00:01:10,121
the Army, when the prestige of the
United States throughout the world had

12
00:01:10,121 --> 00:01:14,143
had been shaken by events beyond
its control, stirred the hearts and

13
00:01:14,143 --> 00:01:18,255
emotions of the American people
with an epic display of scientific

14
00:01:18,255 --> 00:01:24,288
and technical teamwork. Our
story starts eighty-four days

15
00:01:24,288 --> 00:01:31,050
before the launching of Explorer I. The
date, the morning on November 8, 1957

16
00:01:31,077 --> 00:01:37,063
in Huntsville Alabama. A sudden meeting
has been called by General John B.

17
00:01:37,063 --> 00:01:43,165
Medaris, commanding general of the
Army Ballistic Missile Agency.

18
00:01:43,165 --> 00:01:47,115
“Good morning, gentleman, be
seated, please. I have a very

19
00:01:47,115 --> 00:01:53,117
important announcement for you. We have
been assigned the mission in launching

20
00:01:53,117 --> 00:01:59,081
a scientific Earth satellite. We will use
the Jupiter-C configuration as a

21

00:01:59,081 --> 00:02:03,093
carrier that we developed along with
the Jet Propulsion Laboratory. I

22
00:02:03,161 --> 00:02:06,098
promised the Secretary of the
Army that we would be ready in

23
00:02:06,098 --> 00:02:10,195
ninety days or less.
Let's go, Wernher."

24
00:02:10,195 --> 00:02:15,159
This is what they have been waiting
for. The deadline is ninety

25
00:02:15,159 --> 00:02:22,110
days, ninety days to put a satellite into
orbit, a crash program, an emergency.

26
00:02:22,110 --> 00:02:24,726
The American people had become
aware of that emergency long

27
00:02:24,726 --> 00:02:34,091
before when a Soviet Sputnik
beep-beeped its way across the sky.

28
00:02:34,091 --> 00:02:37,477
The reaction was one of astonishment
and concern, for it was

29
00:02:37,477 --> 00:02:41,116
well-known that a potential enemy was
at least temporarily ahead in developing

30
00:02:41,116 --> 00:02:50,159
means for space travel. The action.
Counter reaction. All at once,

31

00:02:50,159 --> 00:02:53,501
American's were interested in the
on-coming age of space. With the

32
00:02:53,501 --> 00:02:58,191
curiosity came a mounting, swelling
demand to get a satellite into the air

33
00:02:58,191 --> 00:03:02,934
on the double. But, there were
disappointments. It was an immensely

34
00:03:02,934 --> 00:03:07,014
difficult job and the first
American attempt with

35
00:03:07,014 --> 00:03:16,512
a Vanguard rocket was a failure.
[Rocket Explosion]

36
00:03:16,512 --> 00:03:21,969
That was the background to
the assignment to the Army

37
00:03:22,060 --> 00:03:27,077
Ballistic Missile Agency on November 8,
1957, put a satellite into orbit within

38
00:03:27,077 --> 00:03:33,139
ninety days. There was no sense of panic
as the capability for doing the job had been

39
00:03:33,139 --> 00:03:39,399
ABMA's since 1954. ABMA was a crack
team headed by old pros of the

40
00:03:39,399 --> 00:03:44,204
the missile team. Dr. Wernher von
Braun, director of the Development

41

00:03:44,204 --> 00:03:48,906
Operations Division, supervised
over three thousand scientists,

42
00:03:48,906 --> 00:03:52,358
engineers, and technicians with more
years of practical experience than

43
00:03:52,358 --> 00:03:56,164
any similar group elsewhere.

44
00:03:56,164 --> 00:04:00,131
Long before a countdown starts
at a launching pad, precise

45
00:04:00,131 --> 00:04:04,044
miniature replicas of the individual
sections are made and subjected

46
00:04:04,112 --> 00:04:09,247
to numerous tests. Even the model work
comes after a countless number of

47
00:04:09,247 --> 00:04:15,090
hours at the drafting table. Each new
experiment, each test means more

48
00:04:15,090 --> 00:04:18,554
knowledge, which may mean a
change of design. There are often

49
00:04:18,554 --> 00:04:23,109
no precedents. It is creative work
by creative men and women

50
00:04:23,109 --> 00:04:28,087
absorbed in the fascinating problems
of space flight. It would be

51
00:04:28,087 --> 00:04:34,750

difficult to find a science which does
not have something to contribute.

52
00:04:34,750 --> 00:04:38,275
Even as the research and design work,
along with the incessant testing,

53
00:04:38,275 --> 00:04:44,287
goes on, the missiles take shape
in the vast construction shops. In the

54
00:04:44,310 --> 00:04:49,187
development phase, no two missiles are
alike. Each one contains changes and

55
00:04:49,187 --> 00:04:53,295
improvements on what has come before.
All efforts are made to perfect the

56
00:04:53,295 --> 00:04:58,127
missiles quickly, but, every day
presents an obstacle course of unique

57
00:04:58,127 --> 00:05:03,083
problems. Even the welding, for
example, involved special techniques

58
00:05:03,083 --> 00:05:09,018
needed to satisfy the specific
requirements of a missile. Now, added

59
00:05:09,018 --> 00:05:13,267
to the already numerous complications,
the ABMA development

60
00:05:13,267 --> 00:05:18,252
team had the job of modifying an
existing missile system for the purpose

61
00:05:18,252 --> 00:05:24,870

of achieving orbital capacity.

62
00:05:24,870 --> 00:05:28,985
The decision was passed down,
modify the Redstone ballistic missile,

63
00:05:29,008 --> 00:05:33,557
the Army's most powerful weapons
carrier over a two-hundred-mile range.

64
00:05:33,557 --> 00:05:39,163
Why the Redstone? It had proved
itself again and again on the ABMA

65
00:05:39,163 --> 00:05:46,228
launching pads at Cape
Canaveral, Florida.

66
00:05:46,283 --> 00:05:53,762
[Music Playing]

67
00:05:53,859 --> 00:06:18,840
[Rocket Launching]

68
00:06:18,881 --> 00:06:21,612
At Huntsville, Alabama, the steady
success of the Redstone

69
00:06:21,612 --> 00:06:26,122
firings confirmed they were going to be the
ones to put up a satellite. Work on

70
00:06:26,122 --> 00:06:29,952
modifications was accelerated around
the clock. The tests of components,

71
00:06:29,953 --> 00:06:35,406
assemblies, everything that goes into the
missile. Question, will a small piece of

72
00:06:35,406 --> 00:06:39,057
metal alloy withstand the hottest part of
the rocket’s exhaust? No guesswork,

73
00:06:39,101 --> 00:06:45,023
the ABMA people have to know. The
rocket’s exhaust will be too much for

74
00:06:45,023 --> 00:06:52,702
the alloy, it melts. So, they will
develop a better one.

75
00:06:52,702 --> 00:07:00,178
The final test at ABMA, the big
one where the results of

76
00:07:00,178 --> 00:07:05,106
thousands of tests are checked out
is the static firing. Held firmly in

77
00:07:05,106 --> 00:07:09,835
place, it’s rocket engines filled with
fuel, the assembled missile is studied

78
00:07:09,835 --> 00:07:13,171
during full-force firing. In the blockhouse
sheathed in concrete where

79
00:07:13,171 --> 00:07:17,571
the operating controls and personnel
are located, the countdown has

80
00:07:17,571 --> 00:07:22,771
started. A few seconds before
firing, the water is turned on.

81
00:07:22,771 --> 00:07:25,496
Four thousand gallons a minute are
required to cool the flame

82
00:07:25,518 --> 00:07:29,988
deflector of the test stand in the
simulated flight where the missile

83
00:07:29,988 --> 00:07:38,130
will stay right where she is. The countdown
moves along to the fateful moment.

84
00:07:38,130 --> 00:07:47,409
[Rocket Firing]

85
00:07:47,409 --> 00:07:52,383
The static test is over. The rocket is
taken down and dried out.

86
00:07:52,383 --> 00:07:56,407
A closer examination of the rocket
by observer teams will determine

87
00:07:56,407 --> 00:08:04,304
how various parts withstood the
static test firing. The static firing

88
00:08:04,304 --> 00:08:08,116
was successful and the modified
Redstone, which would serve as the

89
00:08:08,116 --> 00:08:16,151
first stage of the satellite-bearing
rocket, was loaded aboard a plane.

90
00:08:16,151 --> 00:08:20,153
[Aircraft Noise]

91
00:08:20,153 --> 00:08:31,470
Next stop, Cape Canaveral, Florida.
But meanwhile, far across the

92
00:08:31,470 --> 00:08:35,146

country at the Jet Propulsion
Laboratory, a sprawling eighty

93
00:08:35,146 --> 00:08:38,176
-eight-acre research and development
complex in Pasadena, California,

94
00:08:38,176 --> 00:08:42,103
scientists and engineers were racing
toward the same deadline, ninety days

95
00:08:42,103 --> 00:08:47,124
to put a satellite into orbit. Their
job, furnish the high-speed

96
00:08:47,124 --> 00:08:50,764
upper stages to take over
after the first stage

97
00:08:50,764 --> 00:08:56,265
powered the satellite to the prescribed
distance from the Earth.

98
00:08:56,265 --> 00:09:01,028
JPL also assembled the satellite
and provided instrumentation

99
00:09:01,072 --> 00:09:06,201
to transmit the scientific data. When
completed, the cylinder contained two

100
00:09:06,201 --> 00:09:11,048
transmitters, their battery power supplies,
and instrumentation for transmitting

101
00:09:11,048 --> 00:09:16,043
data on cosmic rays, meteorite erosion,
and temperature measurements. The data

102
00:09:16,043 --> 00:09:21,101

would be dispatched continuously
by the two transmitters.

103
00:09:21,101 --> 00:09:27,032
Assembled, the satellite appears
small, but, if all went well, seven

104
00:09:27,032 --> 00:09:30,229
and a half minutes from the time the
giant missile bearing it would

105
00:09:30,229 --> 00:09:35,344
leave the Earth, the cylinder would be
hurtling independently through space at

106
00:09:35,344 --> 00:09:41,002
a little over eighteen thousand
miles per hour, if all went well.

107
00:09:41,024 --> 00:09:45,015
The checkout on the JPL tests
stand went smoothly, but only

108
00:09:45,015 --> 00:09:50,500
the launching pad at Cape Canaveral,
Florida would tell the story.

109
00:09:50,500 --> 00:09:59,232
The date, Wednesday 29 January 1958,
eight days before the deadline

110
00:09:59,232 --> 00:10:04,329
set down by General Medaris. On
the morning of the twenty-ninth,

111
00:10:04,329 --> 00:10:08,300
the weather was not good. The
prediction was for thunderstorms and

112
00:10:08,300 --> 00:10:13,119

unsatisfactory Jetstream conditions
aloft. A twenty-four-hour postponement

113
00:10:13,119 --> 00:10:19,037
was decided upon. The hours passed with
the rocket crews working swiftly and

114
00:10:19,037 --> 00:10:23,115
intensively. There was a whole set
of operations to be completed

115
00:10:23,115 --> 00:10:34,171
at least twenty-four hours before
the countdown starts.

116
00:10:34,171 --> 00:10:38,313
It was not until Friday, January
31st that the weather cleared

117
00:10:38,313 --> 00:10:44,176
sufficiently for General Medaris to
order launch at 10:30 PM. Men worked

118
00:10:44,176 --> 00:10:48,395
on the lines, pipes and servicing units on
the pad, others clambered above the

119
00:10:48,395 --> 00:10:54,288
various gantry levels. As is so
often said in the Army

120
00:10:54,288 --> 00:11:02,251
but rarely with more
accuracy, this was it.

121
00:11:02,251 --> 00:11:06,175
Before the countdown was to start,
the satellite and last stage rocket,

122
00:11:06,175 --> 00:11:13,394

shrouded to prevent even the slightest
abrasion, was at the launching pad.

123
00:11:13,394 --> 00:11:18,974
Dwarfed by the giant missile and
the protective scaffold of the

124
00:11:18,974 --> 00:11:24,967
gantry, the payload, weighing 30.8
pounds, eighty inches in length, is

125
00:11:24,967 --> 00:11:31,406
raised toward the tow where it will be
carefully fitted into place like a glittering

126
00:11:31,406 --> 00:11:37,941
jewel in a luminous setting. At X minus
two hours, hydyne, an exotic liquid

127
00:11:37,941 --> 00:11:41,380
oxygen oxidizer for the fuel
begins to flow into the

128
00:11:41,380 --> 00:11:57,978
tanks. Frosty white vapor
hisses from the vents.

129
00:11:57,978 --> 00:12:03,247
Minutes click past relentlessly,
the beams of powerful search lights

130
00:12:03,247 --> 00:12:06,274
light up the missile, truly the star of
one of the greatest suspense dramas

131
00:12:06,274 --> 00:12:11,061
of our time. The drama approaches
the final act, the Army’s first

132
00:12:11,105 --> 00:12:15,972

attempt to fire a manmade
moon into orbit. Time, late

133
00:12:15,972 --> 00:12:21,162
evening, Friday January 31,
1958 in a blockhouse at

134
00:12:21,162 --> 00:12:24,326
Canaveral, the countdown to Explorer I.

135
00:12:24,348 --> 00:12:30,026
“Okay, we’ll start now.”
“Any fuel loading?”

136
00:12:30,026 --> 00:12:36,047
“Take away, Grady. Okay, check
with the utility room fuel

137
00:12:36,069 --> 00:12:41,121
vapors and notify the blockhouse when
we’re clear to start generators.”

138
00:12:41,121 --> 00:12:53,271
“Control voltage on.”
“Gyros on?”

139
00:12:53,271 --> 00:12:57,093
“Gyros on.”
“Gyro erection on?”

140
00:12:57,093 --> 00:13:06,082
“Gyro erection on.”“Check the lock
loading has been completed.”

141
00:13:06,082 --> 00:13:23,995
“Roger.”
“Connect assembly two with matters.”

142
00:13:23,995 --> 00:13:31,187
“Okay, power down the leads.”

“Roger. Call your projected path.”

143
00:13:31,187 --> 00:13:49,208
“Okay.”
[Clicking Noise]

144
00:13:49,208 --> 00:13:55,148
“Quick reading after last scaffold
is removed. AFMTC

145
00:13:55,148 --> 00:14:04,012
telemeter calibration tape on.
Start vibration and RPM recorders.”

146
00:14:04,012 --> 00:14:19,810
[Clicking Noise.] “Check all operating lights and
meters for proper operation. Fire panel check?”

147
00:14:19,810 --> 00:14:23,205
“Fire panel okay.”
“Control panel check?"

148
00:14:23,205 --> 00:14:25,516
“Control panel okay.”
“Roger. Major panel check?”

149
00:14:25,516 --> 00:14:28,217
“Major panel okay.”
“Roger. Foster control panel check?”

150
00:14:28,261 --> 00:14:33,085
“Foster control panel okay.”
‘Roger.”

151
00:14:33,085 --> 00:14:37,011
“Gyro erect and all?”
“Gyro erect and all.”

152
00:14:37,033 --> 00:14:42,072
“Water drive on.”

“Water drive on.”

153
00:14:42,072 --> 00:14:47,985
“Power transfer test on. Observe and record
all voltages.” “Power transfer test on.”

154
00:14:47,985 --> 00:14:52,237
“Power transfer off.”
“Power transfer off.”

155
00:14:52,237 --> 00:14:59,180
“Once we’re clear to launch,
clear to launch.”

156
00:14:59,180 --> 00:15:04,122
”Over twenty-one deflection in jet
vein number two. We either have

157
00:15:04,122 --> 00:15:10,556
a relay kicking out or there is
something dropping down on the jet vein.”

158
00:15:10,556 --> 00:15:21,269
“Hold. Telemeter indicated the jet vein
two is deflected. What do you want to do?”

159
00:15:21,269 --> 00:15:24,704
“Forget it.”
“Okay. Resume count.”

160
00:15:24,704 --> 00:15:33,117
“Okay. Should we go ahead.” "Roger."
[Clicking Noise.]

161
00:15:33,139 --> 00:15:57,299
“Forty-five seconds rotor drive on and
front arm.”[Nondescript talking]

162
00:15:57,299 --> 00:15:59,299
“Recording on?”

“Yup.”

163
00:15:59,299 --> 00:16:06,257
“Twenty- seconds. Frequency
one-eleven. Fifteen seconds.”

164
00:16:06,257 --> 00:16:18,173
“Ten, nine, eight, seven, six,
five, four, three, two, one.

165
00:16:18,173 --> 00:16:30,122
Firing command. Rocket
pressurized. Ignition! Lift off!”

166
00:16:30,122 --> 00:17:04,269
[Rocket Launching]

167
00:17:04,269 --> 00:17:09,777
The missile is in flight, but the
success of its mission is still in

168
00:17:09,778 --> 00:17:13,475
doubt. It will take another hour and a
half to know whether the satellite

169
00:17:13,475 --> 00:17:18,283
is in orbit, the most intense
and harrowing wait of all.

170
00:17:18,283 --> 00:17:22,374
Minute-track stations located
throughout the world by the Army,

171
00:17:22,374 --> 00:17:26,588
Air Force, and Navy followed the
movements of the Army Earth satellite.

172
00:17:26,588 --> 00:17:29,425
At each of the stations,
a minute-track radio system

173
00:17:29,425 --> 00:17:43,318
received signals from a
transmitter in the satellite.

174
00:17:43,363 --> 00:17:47,689
About midnight, not far from the
now empty launching

175
00:17:47,689 --> 00:17:52,003
pad, General Medaris finally called
his assistant, Colonel Leonard Orman.

176
00:17:52,004 --> 00:17:59,024
“Hello, Len. You can send this out
to the secretary that our satellite

177
00:17:59,024 --> 00:18:02,328
is definitely on orbit. Now, get that
off and then I will give you

178
00:18:02,328 --> 00:18:06,245
the figures in a few minutes.
Okay, boy.”

179
00:18:06,245 --> 00:18:10,048
In Washington at the National
Academy of Science, a packed

180
00:18:10,048 --> 00:18:15,124
auditorium of reporters, radio and TV
interviewers, heard the announcement of

181
00:18:15,124 --> 00:18:19,216
Dr. Richard Porter, chairman of
the IGY Committee.

182
00:18:19,216 --> 00:18:23,213
“The National Academy of Sciences and
the National Science Foundation

183
00:18:23,213 --> 00:18:29,156
announce that as part of the U.S.-
International Geophysical Year Program,

184
00:18:29,156 --> 00:18:37,065
a scientific Earth satellite was placed in
orbit at five seconds after 10:55 PM by

185
00:18:37,065 --> 00:18:47,136
means of a Jupiter-C rocket vehicle launched
by the Army at Cape Canaveral, Florida.

186
00:18:47,136 --> 00:18:54,099
A similar statement is being issued by
the president. I should like to add

187
00:18:54,099 --> 00:19:01,064
my personal congratulations to the Army
Ballistic Missile Agency and to Dr.

188
00:19:01,064 --> 00:19:08,031
von Braun and Dr. Pickering and
their colleagues for a job well done."

189
00:19:08,031 --> 00:19:10,460
Before the news conference The
Big Picture camera, Sargent

190
00:19:10,505 --> 00:19:14,849
Stuart Queen drew Dr. von Braun
aside for a special interview.

191
00:19:14,849 --> 00:19:16,849
"Dr. von Braun, I wonder if
you could tell our Big

192
00:19:16,849 --> 00:19:23,136
Picture viewers just what did transpire
during those eighty-four days?"

193
00:19:23,136 --> 00:19:28,241
“Well, they were hectic eighty-four
days, I can assure you

194
00:19:28,241 --> 00:19:37,579
that. A project like firing a satellite
into orbit is only possible if there is

195
00:19:37,640 --> 00:19:44,359
splendid teamwork all the way through. In this
particular case, this teamwork involved at

196
00:19:44,359 --> 00:19:50,145
close cooperation between our own Army
Ballistic Missile Agency in Huntsville,

197
00:19:50,145 --> 00:19:55,133
Alabama and the Jet Propulsion
Laboratory in Pasadena, California.

198
00:19:55,133 --> 00:20:03,230
Between the two of us, the vehicle
was developed that carried the

199
00:20:03,230 --> 00:20:07,263
satellite into orbit. There was also
very close cooperation between

200
00:20:07,263 --> 00:20:13,193
us and Iowa State University,
which pioneered the payload.

201
00:20:13,193 --> 00:20:21,169
Jet Propulsion Laboratory also had a big
hand in repackaging this payload for our

202
00:20:21,169 --> 00:20:26,221
vehicle because this payload was
originally designed with the Vanguard

203
00:20:26,221 --> 00:20:35,138
vehicle in mind as a potential carrier.
Other groups that deserve much

204
00:20:35,138 --> 00:20:43,059
credit in our successful satellite try
are the military and civilian personnel

205
00:20:43,059 --> 00:20:48,981
of Patrick Air Force Base down in
Florida from where the missile was

206
00:20:48,981 --> 00:20:54,727
fired. The fringe operation down
there and everybody from

207
00:20:54,727 --> 00:21:00,099
the command of the crew and ground
down to the last cameraman gave us

208
00:21:00,099 --> 00:21:09,201
splendid support. The tracking of the
missile as it circles around the globe

209
00:21:09,201 --> 00:21:14,253
is in the hands of both IGY personnel
and personnel of the Naval

210
00:21:14,253 --> 00:21:22,197
You have an example here of
splendid teamwork involving all

211
00:21:22,242 --> 00:21:31,977
three services. I hope this example
will show that you need not

212
00:21:31,977 --> 00:21:38,366
believe everything you hear and
read about inter-service rivalry

213
00:21:38,366 --> 00:21:41,716
and its detrimental effects.
There is actually a lot of fine

214
00:21:41,716 --> 00:21:48,467
teamwork between the services when
it comes to getting things done."

215
00:21:48,467 --> 00:21:53,150
Twenty minutes later, Dr. Porter
opened the question and answer

216
00:21:53,150 --> 00:21:57,506
session by introducing three of the key
men in the success story of Explorer I.

217
00:21:57,506 --> 00:22:00,183
"Credit for the technical part of
this achievement and many others

218
00:22:00,183 --> 00:22:06,087
in this country, first Dr. Wernher von
Braun, director for Development

219
00:22:06,087 --> 00:22:15,290
Operations of the Army Ballistic Missile
Agency. Dr. von Braun, would you rise,

220
00:22:15,290 --> 00:22:24,202
please? Dr. James A. van Allen, head
of the physics department at the State

221
00:22:24,202 --> 00:22:30,034
University of Iowa, who is chairman of
the working group on internal

222
00:22:30,034 --> 00:22:35,181
instrumentation of the panel for the
Earth Satellite Program. Dr. van Allen.

223
00:22:35,181 --> 00:22:42,373
And Dr. William H. Pickering, director
of the Jet Propulsion Laboratory

224
00:22:42,373 --> 00:22:45,244
of the California Institute of
Technology, chairman of our working

225
00:22:45,244 --> 00:22:48,536
group on tracking and computation.
These three gentlemen have

226
00:22:48,536 --> 00:22:53,494
all had a direct and important
part in this achievement."

227
00:22:53,494 --> 00:23:00,999
[Applause]

228
00:23:00,999 --> 00:23:04,912
"Now, if would like to address your
questions, I will try to repeat the

229
00:23:04,912 --> 00:23:12,241
question and we will ask one of these
gentlemen best qualified to answer it for you."

230
00:23:12,241 --> 00:23:18,038
"Dr. von Braun, how many
stages in the device?"

231
00:23:18,038 --> 00:23:25,130
"We have a total of four stages.
The first stage is an elongated

232
00:23:25,130 --> 00:23:36,048
Redstone missile with extra-long tanks
and special fuel combination, which

233
00:23:36,048 --> 00:23:48,449
burns for approximately 140 seconds,
145 seconds. Immediately after cutoff,

234
00:23:48,449 --> 00:23:54,239
we separate the front portion of this missile,
the so-called instrument compartment, from

235
00:23:54,239 --> 00:24:01,187
the tank section. This instrument compartment
is equipped with a special aptitude

236
00:24:01,187 --> 00:24:08,122
control system, as we call it, that
aligns this portion, including the

237
00:24:08,122 --> 00:24:16,442
spinning launcher in the nose, in an
exactly horizontal position. Once this

238
00:24:16,442 --> 00:24:23,252
nose section with the spinning cluster
configuration in the nose goes

239
00:24:23,252 --> 00:24:28,415
through the apex of the trajectory
the top stages are fired. There

240
00:24:28,415 --> 00:24:35,057
are three solid rocket stages in
the top, so it is a four-stage vehicle."

241
00:24:35,057 --> 00:24:39,655
"How does this altitude
compare with the Sputniks?"

242
00:24:39,677 --> 00:24:43,288
"This is somewhat greater than the
altitude of either Sputnik I or

243
00:24:43,288 --> 00:24:47,369
Sputnik II."

244
00:24:47,369 --> 00:24:51,218
"The question is, has any form of
life been placed in the satellite?

245
00:24:51,218 --> 00:24:54,535
I think I could answer that one
almost myself, not intentionally."

246
00:24:54,535 --> 00:24:58,058
[Laughter]

247
00:24:58,058 --> 00:25:02,278
"Maybe we have a Florida cockroach
inside, we don't know."

248
00:25:02,278 --> 00:25:06,903
Everybody welcomed the touches
of humor, for it was, after

249
00:25:06,903 --> 00:25:11,240
all, an hour of jubilation. "Just one more"
became the inevitable plea from the

250
00:25:11,240 --> 00:25:17,881
photographers. As exhausted as they
were, the trio obliged with what was

251
00:25:17,881 --> 00:25:25,299
to be the page one spread in
newspapers all over the world. In plain

252
00:25:25,299 --> 00:25:27,276
language, the United States was in
the space business along

253
00:25:27,277 --> 00:25:31,408

with the Russians and Explorer I
was the beginning.

254
00:25:31,408 --> 00:25:36,210
Just under two months after
Explorer I was put into orbit and

255
00:25:36,210 --> 00:25:40,357
close on the heels of a successful firing
of the Navy's Vanguard, a launching

256
00:25:40,357 --> 00:25:46,163
pad at Canaveral awaited another
Army satellite, Explorer III.

257
00:25:46,163 --> 00:25:53,229
The Army's first success had not
washed away the rocket

258
00:25:53,229 --> 00:25:58,188
men's humility, for there are a countless
number of things that can go wrong

259
00:25:58,188 --> 00:26:03,413
in the operation. Indeed, Explorer II
fired successfully had failed to go

260
00:26:03,413 --> 00:26:08,476
into orbit because of one tiny
component in the last stage.

261
00:26:08,476 --> 00:26:13,248
Maybe that was why along the
Florida beaches many fingers

262
00:26:13,248 --> 00:26:19,100
were crossed as eyes stared toward
Explorer III. Shortly before launch,

263
00:26:19,100 --> 00:26:24,188

the upper stages are set rotating. If
the spin were not provided, the payload

264
00:26:24,188 --> 00:26:27,303
would be hopelessly deflected.

265
00:26:27,303 --> 00:26:44,882
[Launch Sounds]

266
00:26:44,882 --> 00:26:52,086
Explorer II was reported in
orbit. Again, news flashed

267
00:26:52,086 --> 00:26:57,108
instantaneously throughout the world,
in every language, to every country.

268
00:26:57,153 --> 00:27:01,120
Wherever the news went, it had an
effect of transcendent importance.

269
00:27:01,142 --> 00:27:05,225
The scientific and technical prestige
of the United States was

270
00:27:05,225 --> 00:27:09,276
enhanced. People everywhere
knew the free world would not

271
00:27:09,276 --> 00:27:14,500
be left behind in the all-important
race toward outer space.

272
00:27:14,500 --> 00:27:16,883
Now, American could once
again look up toward

273
00:27:16,883 --> 00:27:24,101
their future with faith
and with confidence.

274
00:27:24,101 --> 00:27:30,064
And so, two Explorers were in orbit.
Momentous achievements made

275
00:27:30,064 --> 00:27:33,342
possible by the close cooperation
of the Army with some of

276
00:27:33,342 --> 00:27:38,024
the best technical and scientific minds
in the land. As these satellites raced

277
00:27:38,024 --> 00:27:42,009
through the uncharted upper atmospheres,
there would come a steady

278
00:27:42,009 --> 00:27:48,448
stream of information to enrich our
knowledge of the worlds about us.

279
00:27:48,448 --> 00:27:54,106
The infinity that lies far, far
beyond the wild blue yonder.

280
00:27:54,106 --> 00:28:02,475
“Now, this is Sargent Stuart Queen,
your host for the Big Picture.”

281
00:28:02,475 --> 00:28:04,475
[Music Playing]

282
00:28:04,475 --> 00:28:08,448
The Big Picture is an official
television report for the armed

283
00:28:08,448 --> 00:28:16,289
Forces and the American People.
Produced by the Army Pictorial Center