1
00:00:27,349 --> 00:00:25,590
hello i'm lynn bondurant director of

2
00:00:29,269 --> 00:00:27,359
curriculum and evaluation at the

3
00:00:30,710 --> 00:00:29,279
challenger center for space science

4
00:00:32,470 --> 00:00:30,720
education

5
00:00:34,389 --> 00:00:32,480
all of us at the challenger center are

6
00:00:36,549 --> 00:00:34,399
pleased to learn that your class will

7
00:00:38,310 --> 00:00:36,559
soon be flying a simulation at one of

8
00:00:40,869 --> 00:00:38,320
our mission sites

9
00:00:43,430 --> 00:00:40,879
now a simulation is not like going to an

10
00:00:45,270 --> 00:00:43,440
amusement park and riding a ride

11
00:00:47,350 --> 00:00:45,280
but it's more like being on a motion

12
00:00:50,069 --> 00:00:47,360
picture set where each one of you will

13
00:00:51,430 --> 00:00:50,079

be a star in a future space flight

14
00:00:56,069 --> 00:00:51,440
mission

15
00:00:58,389 --> 00:00:56,079
site you'll be divided into two groups

16
00:01:00,709 --> 00:00:58,399
one group will begin the simulation in

17
00:01:03,029 --> 00:01:00,719
the mission control the other group in

18
00:01:05,350 --> 00:01:03,039
the simulator which is a spacecraft

19
00:01:07,429 --> 00:01:05,360
somewhere in space

20
00:01:08,710 --> 00:01:07,439
everyone who participates in a

21
00:01:11,030 --> 00:01:08,720
simulation

22
00:01:14,469 --> 00:01:11,040
is very important to the success of the

23
00:01:16,310 --> 00:01:14,479
mission as such each one of you will be

24
00:01:18,390 --> 00:01:16,320
assigned to a team

25
00:01:21,270 --> 00:01:18,400
your team will have certain things that

26
00:01:23,030 --> 00:01:21,280
you must do that relate to the mission

27
00:01:25,910 --> 00:01:23,040
members of each team will have

28
00:01:27,670 --> 00:01:25,920
workstations in both mission control and

29
00:01:30,149 --> 00:01:27,680
the simulator

30
00:01:33,670 --> 00:01:30,159
during each mission you will work both

31
00:01:36,469 --> 00:01:33,680
in mission control and the simulator

32
00:01:38,630 --> 00:01:36,479
in mission control you will work at one

33
00:01:40,789 --> 00:01:38,640
of the various councils

34
00:01:43,670 --> 00:01:40,799
team members and mission control guide

35
00:01:44,950 --> 00:01:43,680
the spacecraft through various aspects

36
00:01:47,510 --> 00:01:44,960
of the flight

37
00:01:49,990 --> 00:01:47,520
as mission controllers you will supply

38
00:01:52,310 --> 00:01:50,000

the flight crew and the simulator with

39
00:01:54,389 --> 00:01:52,320
information and images needed to

40
00:01:56,789 --> 00:01:54,399
complete their task

41
00:01:59,429 --> 00:01:56,799
at the consoles you will also receive

42
00:02:00,870 --> 00:01:59,439
information to record from the crew in

43
00:02:03,510 --> 00:02:00,880
the simulator

44
00:02:05,749 --> 00:02:03,520
sometimes you will be able to see live

45
00:02:07,830 --> 00:02:05,759
images from the simulator

46
00:02:10,550 --> 00:02:07,840
the monitors at the front of mission

47
00:02:13,670 --> 00:02:10,560
control reflect what is occurring in the

48
00:02:17,350 --> 00:02:13,680
simulator the status of the mission and

49
00:02:19,510 --> 00:02:17,360
will also show data or video images

50
00:02:21,190 --> 00:02:19,520
as mission controllers you have a very

51
00:02:23,990 --> 00:02:21,200
important role that involves

52
00:02:26,150 --> 00:02:24,000
communications and interactions with the

53
00:02:28,550 --> 00:02:26,160
crew and the simulator

54
00:02:29,830 --> 00:02:28,560
your job is to help them solve their

55
00:02:32,309 --> 00:02:29,840
problems

56
00:02:34,830 --> 00:02:32,319
it is your responsibility to know which

57
00:02:38,949 --> 00:02:34,840
tasks the crew and the simulator is

58
00:02:41,750 --> 00:02:38,959
doing task cards will help you do this

59
00:02:44,309 --> 00:02:41,760
every workstation in the simulator and

60
00:02:46,630 --> 00:02:44,319
all the councils and mission control

61
00:02:49,190 --> 00:02:46,640
have a set of task cards that relate to

62
00:02:51,430 --> 00:02:49,200
the jobs that their team must do during

63
00:02:54,309 --> 00:02:51,440

the simulation

64
00:02:56,790 --> 00:02:54,319
each task card has the steps required to

65
00:02:59,190 --> 00:02:56,800
complete a specific task

66
00:03:00,869 --> 00:02:59,200
notice that the task card has a start

67
00:03:03,030 --> 00:03:00,879
and end code

68
00:03:04,390 --> 00:03:03,040
you are to enter the start code when you

69
00:03:07,509 --> 00:03:04,400
begin a task

70
00:03:09,670 --> 00:03:07,519
and the end code when it is completed

71
00:03:11,270 --> 00:03:09,680
to do this you will use the cue pad at

72
00:03:14,949 --> 00:03:11,280
your workstation

73
00:03:16,470 --> 00:03:14,959
a q pad is not difficult to use

74
00:03:19,270 --> 00:03:16,480
as an example

75
00:03:21,750 --> 00:03:19,280
watch as i enter the start code from one

76
00:03:24,710 --> 00:03:21,760
of the data team task cards

77
00:03:25,589 --> 00:03:24,720
the start code number is three

78
00:03:26,550 --> 00:03:25,599
eight

79
00:03:30,390 --> 00:03:26,560
seven

80
00:03:33,030 --> 00:03:30,400
zero zero one

81
00:03:35,670 --> 00:03:33,040
make sure you enter the correct code

82
00:03:37,670 --> 00:03:35,680
after i have entered the start code i

83
00:03:40,149 --> 00:03:37,680
press the send button

84
00:03:42,309 --> 00:03:40,159
once i have sent the start code the

85
00:03:44,869 --> 00:03:42,319
mission status board changes to let

86
00:03:46,470 --> 00:03:44,879
mission control know what the data team

87
00:03:48,789 --> 00:03:46,480
is doing

88
00:03:52,550 --> 00:03:48,799

watch the mission status board change as

89
00:03:56,550 --> 00:03:54,390
during your mission you are going to

90
00:03:58,309 --> 00:03:56,560
return to the moon

91
00:04:00,949 --> 00:03:58,319
you are going to build on what was

92
00:04:03,750 --> 00:04:00,959
learned during the apollo program

93
00:04:06,229 --> 00:04:03,760
your job is to gather information during

94
00:04:08,630 --> 00:04:06,239
your flight which can be studied later

95
00:04:09,750 --> 00:04:08,640
in order to establish a mining base on

96
00:04:12,309 --> 00:04:09,760
the moon

97
00:04:13,990 --> 00:04:12,319
the tasks associated with the mission

98
00:04:15,750 --> 00:04:14,000
are to be carried out here in the

99
00:04:17,909 --> 00:04:15,760
simulator

100
00:04:21,189 --> 00:04:17,919
if you are a member of the lunar geology

101
00:04:23,830 --> 00:04:21,199
team you will work at this station

102
00:04:26,030 --> 00:04:23,840
from here you can teleoperate vehicles

103
00:04:28,390 --> 00:04:26,040
on the moon's surface

104
00:04:31,189 --> 00:04:28,400
teleoperations means that you are able

105
00:04:33,350 --> 00:04:31,199
to operate something from a farm

106
00:04:34,870 --> 00:04:33,360
you do not need to be right there to

107
00:04:37,270 --> 00:04:34,880
make it work

108
00:04:39,909 --> 00:04:37,280
the lunar geology team will also study

109
00:04:42,150 --> 00:04:39,919
moon rocks in the glovebox

110
00:04:44,390 --> 00:04:42,160
the medical team studies the effects of

111
00:04:46,629 --> 00:04:44,400
space travel on the crew

112
00:04:49,590 --> 00:04:46,639
is there a difference in the effect of

113
00:04:52,629 --> 00:04:49,600

the zero-g environment of moon orbit

114
00:04:54,469 --> 00:04:52,639
and the 1-6-g moon environment on the

115
00:04:57,270 --> 00:04:54,479
health of the crew

116
00:05:00,950 --> 00:04:57,280
g stands for the word gravity you will

117
00:05:02,870 --> 00:05:00,960
do tasks to evaluate the crew's health

118
00:05:04,550 --> 00:05:02,880
if you are assigned to work at the

119
00:05:07,189 --> 00:05:04,560
isolation chamber

120
00:05:09,909 --> 00:05:07,199
you will use robots to handle and study

121
00:05:13,909 --> 00:05:09,919
various materials including lunar core

122
00:05:15,670 --> 00:05:13,919
samples outside of the spacecraft

123
00:05:18,070 --> 00:05:15,680
those of you assigned to the life

124
00:05:20,070 --> 00:05:18,080
support team will be involved in

125
00:05:22,469 --> 00:05:20,080
checking out the various systems that

126
00:05:25,749 --> 00:05:22,479
produce the artificial environment that

127
00:05:27,590 --> 00:05:25,759
keeps the astronauts alive

128
00:05:30,230 --> 00:05:27,600
during the first half of the mission the

129
00:05:31,990 --> 00:05:30,240
navigation team will be busy choosing

130
00:05:33,430 --> 00:05:32,000
the best landing site for your

131
00:05:35,510 --> 00:05:33,440
spacecraft

132
00:05:38,070 --> 00:05:35,520
during the second half the navigation

133
00:05:40,629 --> 00:05:38,080
team determines the correct orbit to

134
00:05:42,790 --> 00:05:40,639
launch onto from the lunar surface for

135
00:05:45,110 --> 00:05:42,800
eventual return to earth

136
00:05:47,670 --> 00:05:45,120
the navigation team members will also

137
00:05:49,590 --> 00:05:47,680
have several other navigation tasks to

138
00:05:52,230 --> 00:05:49,600

complete

139
00:05:54,870 --> 00:05:52,240
as data team members you will send

140
00:05:55,909 --> 00:05:54,880
messages and supply data to the various

141
00:05:58,070 --> 00:05:55,919
teams

142
00:06:00,790 --> 00:05:58,080
you will also make measurements on some

143
00:06:03,189 --> 00:06:00,800
of the lunar images

144
00:06:05,510 --> 00:06:03,199
probe team members will be involved in

145
00:06:09,110 --> 00:06:05,520
checking out a probe that will be used

146
00:06:12,309 --> 00:06:09,120
to gather information about the moon

147
00:06:15,029 --> 00:06:12,319
capcom and mission control and simcom in

148
00:06:17,270 --> 00:06:15,039
the simulator will be kept busy asking

149
00:06:20,309 --> 00:06:17,280
for answers and providing input as

150
00:06:22,550 --> 00:06:20,319
necessary to make the entire mission

151
00:06:24,469 --> 00:06:22,560
operate smoothly

152
00:06:25,430 --> 00:06:24,479
good luck in completing all of your

153
00:06:28,710 --> 00:06:25,440
tasks

154
00:06:30,629 --> 00:06:28,720
during your return to the moon

155
00:06:32,790 --> 00:06:30,639
a visit to a challenger center mission

156
00:06:35,110 --> 00:06:32,800
site will certainly enable you to touch

157
00:06:36,390 --> 00:06:35,120
the future as you carry out your space

158
00:06:39,350 --> 00:06:36,400
mission

159
00:06:40,710 --> 00:06:39,360
yet it's not too impossible to dream

160
00:06:42,710 --> 00:06:40,720
that someday

161
00:06:45,350 --> 00:06:42,720
you may be an actual crew member aboard

162
00:06:46,830 --> 00:06:45,360
a spacecraft destined to return to the

163
00:06:49,350 --> 00:06:46,840

moon or journey to

164
00:06:50,629 --> 00:06:49,360
mars but whatever the future holds for

165
00:06:51,670 --> 00:06:50,639
each of you