1
00:00:28,820 --> 00:00:25,450
[Music]

2
00:00:31,609 --> 00:00:28,830
the fourth Saturn 1b launch vehicle a s

3
00:00:34,340 --> 00:00:31,619
204 is presently scheduled for launch

4
00:00:35,930 --> 00:00:34,350
early in the next quarter at the end of

5
00:00:38,330 --> 00:00:35,940
the quarter the flight readiness test

6
00:00:41,479 --> 00:00:38,340
had been successfully completed the

7
00:00:46,040 --> 00:00:41,489
flight designation of a s 204 is Apollo

8
00:00:47,750 --> 00:00:46,050
5a s 204 LM 1 in addition to serving as

9
00:00:50,540 --> 00:00:47,760
an Apollo Saturn development flight

10
00:00:52,510 --> 00:00:50,550
Apollo 5 will also be the final flight

11
00:00:57,099 --> 00:00:52,520
to carry launch vehicle R&D

12
00:01:00,709 --> 00:00:57,109
instrumentation in the Saturn 1b program

13
00:01:01,849 --> 00:01:00,719

all remaining Saturn 1b stages are on or

14
00:01:07,460 --> 00:01:01,859
ahead of schedule

15
00:01:09,289 --> 00:01:07,470
booster status is as follows s1 b5 is

16
00:01:12,260 --> 00:01:09,299
presently undergoing post storage

17
00:01:15,740 --> 00:01:12,270
modifications checkout is expected to

18
00:01:20,929 --> 00:01:15,750
start in early January 1968 and shipment

19
00:01:22,850 --> 00:01:20,939
will meet the KSC need date s1 b6 was

20
00:01:25,190 --> 00:01:22,860
removed from storage during this quarter

21
00:01:28,100 --> 00:01:25,200
and post storage modifications were

22
00:01:30,109 --> 00:01:28,110
completed in mid-november at the end of

23
00:01:31,910 --> 00:01:30,119
the quarter post storage checkout tests

24
00:01:34,010 --> 00:01:31,920
were completed and the stage is

25
00:01:37,069 --> 00:01:34,020
scheduled to be delivered to KSC next

26
00:01:40,460 --> 00:01:37,079
quarter a successful flight of Apollo 5

27
00:01:45,139 --> 00:01:40,470
could cause the a.s 206 LM - mission to

28
00:01:47,539 --> 00:01:45,149
be cancelled s1 b7 was removed from

29
00:01:49,130 --> 00:01:47,549
storage in late December and the stage

30
00:01:51,830 --> 00:01:49,140
contractor directed the start

31
00:01:53,719 --> 00:01:51,840
modification using the most economical

32
00:01:55,520 --> 00:01:53,729
production plan consistent with the

33
00:02:00,859 --> 00:01:55,530
relatively long lead time delivery

34
00:02:03,590 --> 00:02:00,869
requirement s1 b 8 9 and 10 stages were

35
00:02:07,940 --> 00:02:03,600
in storage at Chrysler masu during and

36
00:02:11,360 --> 00:02:07,950
at the end of the quarter on October

37
00:02:13,790 --> 00:02:11,370
20th the s-1 b11 stage left Mishu on the

38
00:02:15,620 --> 00:02:13,800

barge Palamon enroute to Marshall

39
00:02:19,430 --> 00:02:15,630
Space Flight Center for static firing

40
00:02:22,250 --> 00:02:19,440
tests the stage was offloaded at

41
00:02:26,540 --> 00:02:22,260
Marshall on October 30th and transported

42
00:02:28,460 --> 00:02:26,550
to the static test tower the stage was

43
00:02:30,920 --> 00:02:28,470
erected in the test stand on November

44
00:02:32,930 --> 00:02:30,930
2nd additional testing which will

45
00:02:34,790 --> 00:02:32,940
provide increased confidence prior to

46
00:02:37,760 --> 00:02:34,800
the first manned flight will be

47
00:02:39,320 --> 00:02:37,770
conducted on s1b 11 to determine

48
00:02:42,520 --> 00:02:39,330
dampening characteristics of the

49
00:02:45,950 --> 00:02:42,530
clustered s1 bh1 engine combination

50
00:02:48,470 --> 00:02:45,960
termed engine bomb tests this program

51
00:02:51,080 --> 00:02:48,480
will consist of five 15-second firings

52
00:02:54,200 --> 00:02:51,090
after the initial short duration static

53
00:02:57,080 --> 00:02:54,210
test during the five firings combustion

54
00:02:59,750 --> 00:02:57,090
instability will be induced in two R&D

55
00:03:01,640 --> 00:02:59,760
test engines installed on the stage for

56
00:03:05,530 --> 00:03:01,650
these tests and the dampening

57
00:03:08,060 --> 00:03:05,540
characteristics recorded and analyzed

58
00:03:10,190 --> 00:03:08,070
original testing schedules were delayed

59
00:03:12,560 --> 00:03:10,200
to permit study and instrumentation

60
00:03:15,140 --> 00:03:12,570
additions which will provide data to be

61
00:03:18,830 --> 00:03:15,150
used as baselines for the engine bomb

62
00:03:20,870 --> 00:03:18,840
test program this baseline data was

63
00:03:23,900 --> 00:03:20,880

obtained during the first short duration

64
00:03:30,110 --> 00:03:23,910
static test of s1 b11 conducted

65
00:03:32,720 --> 00:03:30,120
successfully on december 19 1967 final

66
00:03:35,180 --> 00:03:32,730
assembly of s1 b12 was completed early

67
00:03:37,270 --> 00:03:35,190
in this quarter and the stage checkout

68
00:03:39,800 --> 00:03:37,280
was completed December 21st

69
00:03:41,330 --> 00:03:39,810
while the stage is currently scheduled

70
00:03:43,100 --> 00:03:41,340
for shipment in early January to

71
00:03:46,040 --> 00:03:43,110
Marshall Space Flight Center prostatic

72
00:03:48,370 --> 00:03:46,050
firing delay in shipment is anticipated

73
00:03:50,750 --> 00:03:48,380
due to the engine bomb test program

74
00:03:54,949 --> 00:03:50,760
whittled for completion by the end of

75
00:03:57,740 --> 00:03:54,959
February 1968 final full duration firing

76
00:04:01,130 --> 00:03:57,750
of s1 11 is presently scheduled for

77
00:04:03,050 --> 00:04:01,140
March 1968 however this delay will not

78
00:04:07,580 --> 00:04:03,060
adversely affect the overall stage

79
00:04:10,509 --> 00:04:07,590
delivery requirements part and component

80
00:04:12,610 --> 00:04:10,519
fabrication for s 1b 13 through 16

81
00:04:16,280 --> 00:04:12,620
continued throughout the quarter in

82
00:04:20,900 --> 00:04:16,290
addition minor sub assembly of s1 B 13

83
00:04:24,080 --> 00:04:20,910
was in progress the status of the second

84
00:04:27,590 --> 00:04:24,090
RS 4b stages of the Saturn 1b are as

85
00:04:29,900 --> 00:04:27,600
follows the s4 B 205

86
00:04:34,850 --> 00:04:29,910
stage was in modification during the

87
00:04:36,440 --> 00:04:34,860
quarter s4b 206 modifications were

88
00:04:38,750 --> 00:04:36,450

completed during the last part of the

89
00:04:41,900 --> 00:04:38,760
quarter and it is presently in post

90
00:04:46,550 --> 00:04:41,910
storage checkout shipment to KSC is

91
00:04:51,170 --> 00:04:46,560
scheduled for next quarter s 4b stages

92
00:04:53,780 --> 00:04:51,180
207 through 212 are in storage s 4b 212

93
00:04:55,520 --> 00:04:53,790
assembly was completed and the stage was

94
00:05:00,530 --> 00:04:55,530
placed in storage at Huntington Beach

95
00:05:04,330 --> 00:05:00,540
during this quarter Saturn 1b instrument

96
00:05:07,820 --> 00:05:04,340
unit status and progress is as follows

97
00:05:09,950 --> 00:05:07,830
ru 205 after being scheduled for storage

98
00:05:12,380 --> 00:05:09,960
was retained in the modification program

99
00:05:17,660 --> 00:05:12,390
and work continued on an extended

100
00:05:18,920 --> 00:05:17,670
schedule modifications on iu 206 taken

101
00:05:21,260 --> 00:05:18,930
out of storage at the end of the

102
00:05:23,840 --> 00:05:21,270
previous quarter have been completed and

103
00:05:28,670 --> 00:05:23,850
the stage was in post storage check out

104
00:05:35,060 --> 00:05:28,680
at the end of this quarter I use stages

105
00:05:37,130 --> 00:05:35,070
207 and 208 are in storage aiyoo 209 was

106
00:05:42,560 --> 00:05:37,140
completed during the quarter accepted

107
00:05:44,090 --> 00:05:42,570
and placed in storage at IBM iu 210

108
00:05:47,270 --> 00:05:44,100
manufacture and assembly is

109
00:05:49,280 --> 00:05:47,280
approximately 90% complete however since

110
00:05:51,590 --> 00:05:49,290
final flight configuration has not been

111
00:05:53,840 --> 00:05:51,600
determined no work has been accomplished

112
00:05:55,580 --> 00:05:53,850
since the middle of the quarter and the

113
00:06:00,830 --> 00:05:55,590

unit has been temporarily placed in

114
00:06:03,560 --> 00:06:00,840
storage SIU 211 structural assembly was

115
00:06:07,760 --> 00:06:03,570
completed this quarter and the IU was

116
00:06:10,250 --> 00:06:07,770
placed in temporary storage component

117
00:06:14,420 --> 00:06:10,260
parts for instrument unit 212 are

118
00:06:16,340 --> 00:06:14,430
currently being received during this

119
00:06:18,560 --> 00:06:16,350
quarter a storage system based on

120
00:06:21,190 --> 00:06:18,570
previous studies and research by several

121
00:06:24,200 --> 00:06:21,200
Marshall Center offices was finalized

122
00:06:26,210 --> 00:06:24,210
basically this plan calls for a large

123
00:06:29,210 --> 00:06:26,220
tent-like enclosure of flame-retardant

124
00:06:31,550 --> 00:06:29,220
synthetic materials suspended from roof

125
00:06:33,980 --> 00:06:31,560
structures over the vehicle and sealed

126
00:06:36,530 --> 00:06:33,990
at the bottom with weights or sandbags a

127
00:06:38,750 --> 00:06:36,540
small commercial type air-conditioning

128
00:06:40,790 --> 00:06:38,760
unit will be used to maintain humidity

129
00:06:41,420 --> 00:06:40,800
within the enclosure at less than 40

130
00:06:44,300 --> 00:06:41,430
percent

131
00:06:47,210 --> 00:06:44,310
humidity with temperature normally at 85

132
00:06:48,740 --> 00:06:47,220
degrees the cost of such a storage

133
00:06:51,230 --> 00:06:48,750
system is estimated to be very

134
00:06:53,380 --> 00:06:51,240
economical in both initial equipment

135
00:06:55,610 --> 00:06:53,390
required and in operational costs

136
00:06:57,560 --> 00:06:55,620
testing of the equipment and system

137
00:07:00,320 --> 00:06:57,570
performance will be made during the next

138
00:07:05,540 --> 00:07:00,330

quarter utilizing a Saturn ground test

139
00:07:08,330 --> 00:07:05,550
stage astronauts schirra Dukes Russa

140
00:07:09,980 --> 00:07:08,340
young Isley and Cunningham members of

141
00:07:12,860 --> 00:07:09,990
the first manned flight crew of the

142
00:07:15,260 --> 00:07:12,870
Saturn 1b made working tours of the IBM

143
00:07:18,230 --> 00:07:15,270
Huntsville facility and Marshall Space

144
00:07:20,960 --> 00:07:18,240
Flight Center during early October at

145
00:07:23,720 --> 00:07:20,970
IBM these astronauts received intensive

146
00:07:29,960 --> 00:07:23,730
briefings on a s 205 mission hardware

147
00:07:32,480 --> 00:07:29,970
and inspected SIU 205 at MSFC the

148
00:07:36,670 --> 00:07:32,490
astronauts visited the Apollo access arm

149
00:07:38,630 --> 00:07:36,680
test area president lyndon b johnson

150
00:07:41,690 --> 00:07:38,640
visited the Michoud assembly facility

151
00:07:43,970 --> 00:07:41,700
December 12th accompanying the President

152
00:07:46,520 --> 00:07:43,980
on his tour where the governor of

153
00:07:48,980 --> 00:07:46,530
Louisiana John J McKeon NASA

154
00:07:52,010 --> 00:07:48,990
Administrator and mrs. James E web and

155
00:07:54,800 --> 00:07:52,020
other NASA personnel the president

156
00:07:59,180 --> 00:07:54,810
toured the Saturn 1b and Saturn 5 first

157
00:08:01,370 --> 00:07:59,190
stages assembly area activity on the

158
00:08:03,500 --> 00:08:01,380
orbital workshop aspects of the s4b

159
00:08:05,600 --> 00:08:03,510
during the quarter were primarily

160
00:08:08,090 --> 00:08:05,610
directed to modification of the workshop

161
00:08:12,590 --> 00:08:08,100
mock-up which was returned to McDonnell

162
00:08:14,600 --> 00:08:12,600
Douglas late last quarter reworking of

163
00:08:17,600 --> 00:08:14,610

the full-scale mock-up will result in a

164
00:08:19,940 --> 00:08:17,610
two level floor configuration following

165
00:08:23,090 --> 00:08:19,950
completion of rework the mock-up will be

166
00:08:27,560 --> 00:08:23,100
returned early next quarter to MSFC for

167
00:08:29,270 --> 00:08:27,570
further design evaluation at the end of

168
00:08:31,790 --> 00:08:29,280
this quarter the major aspect of the

169
00:08:35,000 --> 00:08:31,800
Saturn 1b program is the launch of a s2o

170
00:08:40,040 --> 00:08:35,010
for presently scheduled for mid January

171
00:08:42,920 --> 00:08:40,050
1968 a s2o for the final R&D vehicle in

172
00:08:44,990 --> 00:08:42,930
the Saturn 1b program will carry over

173
00:08:48,260 --> 00:08:45,000
1,200 telemetry measurements of the

174
00:08:51,110 --> 00:08:48,270
launch vehicle itself in addition to

175
00:08:53,000 --> 00:08:51,120
final 1b development aspects the overall

176
00:08:55,390 --> 00:08:53,010
flight which will be designated Apollo

177
00:08:57,610 --> 00:08:55,400
5a s 204 LM one

178
00:09:00,790 --> 00:08:57,620
we'll be a direct Apollo Saturn

179
00:09:03,040 --> 00:09:00,800
development flight general objectives of

180
00:09:05,230 --> 00:09:03,050
the overall flight will be the verify

181
00:09:08,140 --> 00:09:05,240
operation of the lunar module ascent and

182
00:09:10,980 --> 00:09:08,150
descent propulsion sub systems including

183
00:09:13,350 --> 00:09:10,990
descent propulsion system restart

184
00:09:17,770 --> 00:09:13,360
evaluation of the lunar module structure

185
00:09:20,740 --> 00:09:17,780
lunar module staging and s4 BIU orbital

186
00:09:23,800 --> 00:09:20,750
performance detailed launch vehicle

187
00:09:26,020 --> 00:09:23,810
primary objectives will be evaluation of

188
00:09:29,190 --> 00:09:26,030

the launch vehicle altitude control

189
00:09:32,020 --> 00:09:29,200
system and maneuvering capability

190
00:09:34,240 --> 00:09:32,030
verification of the s4b liquid hydrogen

191
00:09:37,240 --> 00:09:34,250
and liquid oxygen tank pressure rise

192
00:09:41,310 --> 00:09:37,250
rate demonstration of nose cone

193
00:09:43,690 --> 00:09:41,320
separation from s4 biu SLA and

194
00:09:46,240 --> 00:09:43,700
evaluation of operational adequacy of

195
00:09:48,460 --> 00:09:46,250
the launch vehicle systems including

196
00:09:52,450 --> 00:09:48,470
guidance control electrical mechanical

197
00:09:54,760 --> 00:09:52,460
and instrumentation secondary launch

198
00:09:57,160 --> 00:09:54,770
vehicle objectives will be evaluation of

199
00:10:00,160 --> 00:09:57,170
s4b forward skirt in-flight panel

200
00:10:03,010 --> 00:10:00,170
flutter j2 engine crossover duct

201
00:10:05,650 --> 00:10:03,020
temperature s4b propellant dump

202
00:10:09,220 --> 00:10:05,660
experiment and launch vehicle orbital

203
00:10:10,840 --> 00:10:09,230
coast lifetime capability all of the

204
00:10:13,990 --> 00:10:10,850
objectives both primary and secondary

205
00:10:16,780 --> 00:10:14,000
are vital and directly related to future

206
00:10:18,000 --> 00:10:16,790
Saturn 5 launches and the lunar landing