
THE END

1
00:00:13,820 --> 00:00:10,720
[Music]

2
00:00:15,680 --> 00:00:13,830
what early film report number 26 covers

3
00:00:18,920 --> 00:00:15,690
progress during the period October

4
00:00:21,410 --> 00:00:18,930
November December 1965 and is the first

5
00:00:23,599 --> 00:00:21,420
to cover only the Saturn 1b program

6
00:00:26,830 --> 00:00:23,609
previous reports included the now

7
00:00:29,300 --> 00:00:26,840
completed Saturn 1 program

8
00:00:31,519 --> 00:00:29,310
Saturn 1b the second of three

9
00:00:33,139 --> 00:00:31,529
generations of Saturn Class Rockets is

10
00:00:35,000 --> 00:00:33,149
being developed for manned space

11
00:00:37,549 --> 00:00:35,010
exploration under the direction of

12
00:00:39,650 --> 00:00:37,559
NASA's Marshall Space Flight Center the

13
00:00:41,420 --> 00:00:39,660

vehicle consists of two stages and an

14
00:00:43,430 --> 00:00:41,430
instrument unit it will have the

15
00:00:46,040 --> 00:00:43,440
capability of placing manned spacecraft

16
00:00:50,690 --> 00:00:46,050
or large scientific payloads weighing

17
00:00:53,959 --> 00:00:50,700
about 40,000 pounds in Earth orbit the

18
00:00:56,900 --> 00:00:53,969
first stage s 1b is an uprated refined

19
00:00:58,279 --> 00:00:56,910
and lighter version of the s1 stage the

20
00:01:01,970 --> 00:00:58,289
first stage for the completely

21
00:01:03,950 --> 00:01:01,980
successful Saturn 1 vehicle the Chrysler

22
00:01:08,600 --> 00:01:03,960
Corporation is the prime contractor for

23
00:01:11,750 --> 00:01:08,610
the Saturn 1b first stage the second

24
00:01:14,060 --> 00:01:11,760
stage of Saturn 1b called s4b is a

25
00:01:17,780 --> 00:01:14,070
larger more powerful and refined version

26
00:01:20,030 --> 00:01:17,790
of the Saturn 1s for stage s 4b will

27
00:01:23,870 --> 00:01:20,040
also be used as the third stage of the

28
00:01:27,740 --> 00:01:23,880
Saturn 5 the Douglas Aircraft Company is

29
00:01:29,359 --> 00:01:27,750
the prime contractor for s4b the

30
00:01:31,460 --> 00:01:29,369
instrument unit contains improved

31
00:01:33,620 --> 00:01:31,470
versions of the guidance control and

32
00:01:36,380 --> 00:01:33,630
telemetry subsystems proved in the

33
00:01:39,830 --> 00:01:36,390
Saturn one this same design will be used

34
00:01:43,460 --> 00:01:39,840
for Saturn 5 iBM is the prime contractor

35
00:01:44,420 --> 00:01:43,470
for these instrument units the launch of

36
00:01:46,609 --> 00:01:44,430
a Saturn 1b

37
00:01:49,010 --> 00:01:46,619
which will be unmanned is scheduled for

38
00:01:51,139 --> 00:01:49,020

next quarter and flights will follow

39
00:01:53,960 --> 00:01:51,149
after several unmanned flights have

40
00:01:56,569 --> 00:01:53,970
proven vehicle integrity Saturn 1b

41
00:01:58,850 --> 00:01:56,579
missions represent an important step in

42
00:02:00,789 --> 00:01:58,860
advancing launch vehicle and spacecraft

43
00:02:03,679 --> 00:02:00,799
technology providing the necessary

44
00:02:06,039 --> 00:02:03,689
technology leading to Apollo Saturn 5

45
00:02:11,420 --> 00:02:06,049
and manned exploration of space

46
00:02:16,460 --> 00:02:14,000
at Cape Kennedy pre-flight checks of s1b

47
00:02:20,300 --> 00:02:16,470
one started last quarter continued

48
00:02:22,580 --> 00:02:20,310
through this report period s4b was

49
00:02:27,649 --> 00:02:22,590
stacked atop the first stage October 1st

50
00:02:29,569 --> 00:02:27,659
following pre erection checks siu 201

51
00:02:31,819 --> 00:02:29,579
arrived at the Cape aboard the Kalima

52
00:02:33,559 --> 00:02:31,829
following pre erection checks the

53
00:02:36,410 --> 00:02:33,569
instrument unit was stacked atop the

54
00:02:38,539 --> 00:02:36,420
second stage October 25th vehicle

55
00:02:41,990 --> 00:02:38,549
pre-flight check out again immediately

56
00:02:44,000 --> 00:02:42,000
and continued throughout the quarter the

57
00:02:45,410 --> 00:02:44,010
Apollo command module arrived at the

58
00:02:47,599 --> 00:02:45,420
Cape October 25th

59
00:02:49,910 --> 00:02:47,609
two days later the service module was

60
00:02:51,920 --> 00:02:49,920
delivered following extensive testing

61
00:02:54,559 --> 00:02:51,930
including static firing of the service

62
00:02:57,920 --> 00:02:54,569
module both units were erected December

63
00:02:59,899 --> 00:02:57,930

26th also at the Cape installation of

64
00:03:03,319 --> 00:02:59,909
the final items of electrical support

65
00:03:05,599 --> 00:03:03,329
equipment was completed the launch

66
00:03:08,770 --> 00:03:05,609
escape system will be installed atop the

67
00:03:11,240 --> 00:03:08,780
Apollo spacecraft early next quarter

68
00:03:13,699 --> 00:03:11,250
following completion at Marshall system

69
00:03:15,740 --> 00:03:13,709
development facility the s4b launch

70
00:03:18,949 --> 00:03:15,750
computer program tapes were delivered to

71
00:03:21,349 --> 00:03:18,959
KSC December 15th including the Saturn

72
00:03:28,569 --> 00:03:21,359
1b computer program tape deliveries for

73
00:03:34,039 --> 00:03:31,430
s1b to post static checkout began

74
00:03:37,550 --> 00:03:34,049
October 4th at Chrysler Michou and was

75
00:03:39,349 --> 00:03:37,560
completed in mid-november following

76
00:03:41,750 --> 00:03:39,359
completion of preparations for shipment

77
00:03:43,729 --> 00:03:41,760
the stage will remain at Michou until

78
00:03:49,610 --> 00:03:43,739
scheduled shipment to the Cape late

79
00:03:52,039 --> 00:03:49,620
January at MSFC s1 b3 underwent two

80
00:03:55,449 --> 00:03:52,049
successful static firings the first on

81
00:03:57,949 --> 00:03:55,459
October 12th the second on October 26th

82
00:04:00,589 --> 00:03:57,959
the stage was shipped from Marshall to

83
00:04:02,539 --> 00:04:00,599
Michou November 4th most static

84
00:04:04,849 --> 00:04:02,549
modifications and repair continued

85
00:04:08,659 --> 00:04:04,859
throughout the quarter stage checkout is

86
00:04:11,390 --> 00:04:08,669
scheduled for mid-january also at

87
00:04:13,580 --> 00:04:11,400
Chrysler Michou s 1b for a pre static

88
00:04:17,569 --> 00:04:13,590

checkout began October 6th and was

89
00:04:19,849 --> 00:04:17,579
completed November 8 preparations for

90
00:04:22,039 --> 00:04:19,859
stage shipment started immediately it

91
00:04:24,860 --> 00:04:22,049
departed Michoud assemble and was

92
00:04:28,060 --> 00:04:24,870
offloaded at Marshall December 13th

93
00:04:31,159 --> 00:04:28,070
patek testing is scheduled for january

94
00:04:34,129 --> 00:04:31,169
s1 b5 stage assembly started last

95
00:04:35,540 --> 00:04:34,139
quarter was completed November 30th pre

96
00:04:37,189 --> 00:04:35,550
static check out got underway

97
00:04:40,640 --> 00:04:37,199
immediately and is scheduled for

98
00:04:43,280 --> 00:04:40,650
completion early next quarter stage

99
00:04:45,770 --> 00:04:43,290
fabrication for s1 b6 was completed

100
00:04:48,710 --> 00:04:45,780
early this quarter tank clustering began

101
00:04:52,550 --> 00:04:48,720
October 22nd stage assembly continued

102
00:04:54,230 --> 00:04:52,560
throughout the quarter s1 b7 stage

103
00:04:57,409 --> 00:04:54,240
fabrication continued throughout the

104
00:05:03,140 --> 00:04:57,419
quarter stage fabrication for s1 b8 is

105
00:05:04,969 --> 00:05:03,150
also underway on november 9th at dud

106
00:05:07,900 --> 00:05:04,979
missus Sacto facility the second

107
00:05:10,969 --> 00:05:07,910
attempts to acceptance fire s4 b - o -

108
00:05:14,689 --> 00:05:10,979
located in beta stands number 3 was made

109
00:05:16,790 --> 00:05:14,699
after 307 seconds of main stage burning

110
00:05:18,500 --> 00:05:16,800
the firing was automatically terminated

111
00:05:21,260 --> 00:05:18,510
due to problems within the liquid

112
00:05:23,420 --> 00:05:21,270
hydrogen mare sensing system the problem

113
00:05:25,790 --> 00:05:23,430

was corrected but during countdown for

114
00:05:27,980 --> 00:05:25,800
the next attempt a battery subsystem

115
00:05:30,409 --> 00:05:27,990
malfunctioned terminating the countdown

116
00:05:32,779 --> 00:05:30,419
on December 1st the stage was

117
00:05:34,610 --> 00:05:32,789
successfully acceptance fired indicating

118
00:05:42,409 --> 00:05:34,620
successful solution to all the problems

119
00:05:44,120 --> 00:05:42,419
encountered that mrs. s4 b2o3 stage were

120
00:05:47,210 --> 00:05:44,130
shipped from Huntington Beach aboard the

121
00:05:49,969 --> 00:05:47,220
Orion October 29th it arrived at the

122
00:05:52,159 --> 00:05:49,979
Sacramento River dock November 1st was

123
00:05:54,890 --> 00:05:52,169
unloaded then transported to sacto the

124
00:05:57,230 --> 00:05:54,900
following day the stage was installed in

125
00:05:58,939 --> 00:05:57,240
beta stand number one recently converted

126
00:06:01,279 --> 00:05:58,949
from a battleship facility to an

127
00:06:03,290 --> 00:06:01,289
acceptance test facility stage

128
00:06:05,510 --> 00:06:03,300
repowering operations continued through

129
00:06:07,240 --> 00:06:05,520
the quarter with static firing scheduled

130
00:06:10,100 --> 00:06:07,250
for next quarter

131
00:06:12,290 --> 00:06:10,110
the s4b battleship stage which was

132
00:06:14,330 --> 00:06:12,300
removed from beta test stands number one

133
00:06:16,520 --> 00:06:14,340
last quarter will be delivered in

134
00:06:18,740 --> 00:06:16,530
January to the Arnold Engineering Center

135
00:06:23,360 --> 00:06:18,750
at Tullahoma Tennessee for altitude

136
00:06:26,120 --> 00:06:23,370
simulation firing tests s for b204

137
00:06:28,700 --> 00:06:26,130
systems in plants checkout was completed

138
00:06:30,650 --> 00:06:28,710

December 17th modifications and

139
00:06:33,409 --> 00:06:30,660
preparations for shipment are underway

140
00:06:35,570 --> 00:06:33,419
following final inspection the stage is

141
00:06:37,730 --> 00:06:35,580
scheduled for shipment to Sacto early

142
00:06:40,770 --> 00:06:37,740
next quarter

143
00:06:43,380 --> 00:06:40,780
s4b 2:05 installation of stage

144
00:06:47,070 --> 00:06:43,390
insulation begun last quarter was

145
00:06:51,270 --> 00:06:47,080
completed at the end of October mating

146
00:06:53,670 --> 00:06:51,280
of the lh2 and lox tanks for s4b 206 was

147
00:06:56,280 --> 00:06:53,680
completed in October installation of

148
00:06:59,480 --> 00:06:56,290
tank insulation began in November and is

149
00:07:01,890 --> 00:06:59,490
scheduled for completion in mid-january

150
00:07:05,220 --> 00:07:01,900
following bonding of the common bulkhead

151
00:07:08,070 --> 00:07:05,230
for s4b 207 last quarter the LOX tank

152
00:07:09,930 --> 00:07:08,080
and forward lh2 dome were shipped from

153
00:07:12,230 --> 00:07:09,940
Santa Monica to Huntington Beach in

154
00:07:15,120 --> 00:07:12,240
mid-october for mating

155
00:07:19,020 --> 00:07:15,130
due to defective wells in the original

156
00:07:21,570 --> 00:07:19,030
after LOX dome for s4b 208 Douglas is

157
00:07:24,270 --> 00:07:21,580
fabricating a new F dome for the stage

158
00:07:26,700 --> 00:07:24,280
no shipping delay is anticipated for the

159
00:07:28,710 --> 00:07:26,710
LOX tank to Huntington Beach the common

160
00:07:34,730 --> 00:07:28,720
bulkhead is complete and awaiting the

161
00:07:40,890 --> 00:07:38,280
structural testing of SIU 200-500

162
00:07:42,750 --> 00:07:40,900
s2 produced by North American got

163
00:07:44,910 --> 00:07:42,760

underway at Marshall in late December

164
00:07:47,070 --> 00:07:44,920
testing of the unit to verify the

165
00:07:49,260 --> 00:07:47,080
structural integrity of the fourth and

166
00:07:52,470 --> 00:07:49,270
subsequent flight units will continue

167
00:07:55,440 --> 00:07:52,480
during the next quarter at IBM

168
00:07:57,540 --> 00:07:55,450
Huntsville SIU 202 assembly started last

169
00:07:59,760 --> 00:07:57,550
quarter was completed in mid-december

170
00:08:02,840 --> 00:07:59,770
checkout began immediately with

171
00:08:06,600 --> 00:08:02,850
completion planned for early February

172
00:08:08,160 --> 00:08:06,610
also at IBM SIU 203 component

173
00:08:10,230 --> 00:08:08,170
installation continued through the

174
00:08:13,190 --> 00:08:10,240
quarter completion of assembly is

175
00:08:16,350 --> 00:08:13,200
planned for the middle of next quarter

176
00:08:18,480 --> 00:08:16,360
fabrication assembly for SIU 204 was

177
00:08:20,520 --> 00:08:18,490
completed in December component

178
00:08:25,930 --> 00:08:20,530
installation is planned to start next

179
00:08:28,480 --> 00:08:25,940
quarter at Rocketdyne

180
00:08:30,520 --> 00:08:28,490
Oh Susanna facility j2 qualification

181
00:08:33,940 --> 00:08:30,530
testing implemented two-man rate the

182
00:08:36,399 --> 00:08:33,950
engine was completed December 17 the

183
00:08:37,960 --> 00:08:36,409
engine was fired 30 times for a total of

184
00:08:43,060 --> 00:08:37,970
three thousand seven hundred fifty

185
00:08:44,830 --> 00:08:43,070
seconds radio interference tests a

186
00:08:46,840 --> 00:08:44,840
segment of the qualification test

187
00:08:49,270 --> 00:08:46,850
program were conducted in Rocketdyne

188
00:08:51,400 --> 00:08:49,280

Santa Monica facility purpose of the

189
00:08:53,350 --> 00:08:51,410
tests is to show that the engine will

190
00:08:57,610 --> 00:08:53,360
neither emit nor be susceptible to

191
00:08:59,650 --> 00:08:57,620
undesirable interference rocket dines

192
00:09:01,900 --> 00:08:59,660
research and development program on j2

193
00:09:04,300 --> 00:09:01,910
engine thermal insulation is now

194
00:09:05,980 --> 00:09:04,310
complete a laboratory sample was

195
00:09:08,320 --> 00:09:05,990
subjected to various degrees of

196
00:09:11,860 --> 00:09:08,330
temperature using a plasma gun to

197
00:09:15,580 --> 00:09:11,870
generate heat to j2 engines were

198
00:09:17,830 --> 00:09:15,590
delivered in December 1 for the s4b 206

199
00:09:21,210 --> 00:09:17,840
at Douglas and the other for the s for

200
00:09:23,350 --> 00:09:21,220
the battleship stage at Marshall

201
00:09:24,970 --> 00:09:23,360
zero-gravity drop tests are being

202
00:09:27,610 --> 00:09:24,980
conducted at Marshalls recently

203
00:09:30,310 --> 00:09:27,620
completed 400-foot drop tower facility

204
00:09:32,110 --> 00:09:30,320
these tests are a segment of a broad

205
00:09:34,120 --> 00:09:32,120
research program to determine the

206
00:09:36,760 --> 00:09:34,130
behavior of liquid hydrogen during

207
00:09:38,500 --> 00:09:36,770
orbital flight these data will increase

208
00:09:42,070 --> 00:09:38,510
the confidence level of a successful

209
00:09:44,740 --> 00:09:42,080
restart of the s4b engine necessary for

210
00:09:46,960 --> 00:09:44,750
manned lunar missions this is a low

211
00:09:49,900 --> 00:09:46,970
gravity test package in process of being

212
00:09:52,450 --> 00:09:49,910
released from the 366 foot level for a

213
00:09:54,940 --> 00:09:52,460

freefall drop time of approximately four

214
00:09:56,980 --> 00:09:54,950
seconds your behavior data gathered

215
00:09:59,290 --> 00:09:56,990
during these tests will establish a

216
00:10:04,330 --> 00:09:59,300
baseline needed for preparation of SI

217
00:10:06,880 --> 00:10:04,340
203 flight the second stage of si 203

218
00:10:09,760 --> 00:10:06,890
will carry approximately ten tons of lh2

219
00:10:11,860 --> 00:10:09,770
into low-earth orbit during this time

220
00:10:13,960 --> 00:10:11,870
studies will be made on the behavior of

221
00:10:17,860 --> 00:10:13,970
the fuel within the stage during its

222
00:10:19,780 --> 00:10:17,870
weightless condition in summary October

223
00:10:21,970 --> 00:10:19,790
November and December were months of

224
00:10:24,850 --> 00:10:21,980
continuing progress within the Saturn 1b

225
00:10:28,030 --> 00:10:24,860
program continued build-up of Saturn 1b

226
00:10:30,400 --> 00:10:28,040
stages and equipment completion of j2

227
00:10:33,190 --> 00:10:30,410
engine qualification testing at Santa

228
00:10:36,960 --> 00:10:33,200
Susana and pre-launch checkouts at KSC