1
00:00:02,100 --> 00:00:13,390
[Music]

2
00:00:18,800 --> 00:00:16,340
Saturn one 1b quarterly film report

3
00:00:23,590 --> 00:00:18,810
number 25 covers progress during the

4
00:00:25,490 --> 00:00:23,600
period July August September 1965

5
00:00:27,230 --> 00:00:25,500
highlighting this quarter was the

6
00:00:30,919 --> 00:00:27,240
successful launch and flight of the

7
00:00:32,569 --> 00:00:30,929
tenth Saturn 1s a10 successfully closing

8
00:00:35,299 --> 00:00:32,579
out the Saturn one launch vehicle

9
00:00:38,420 --> 00:00:35,309
program with ten successes out of ten

10
00:00:40,160 --> 00:00:38,430
scheduled launches late last quarter the

11
00:00:43,250 --> 00:00:40,170
launch vehicle had been erected at the

12
00:00:45,440 --> 00:00:43,260
Cape and pre-launch testing started the

13
00:00:47,450 --> 00:00:45,450

spacecraft consisting of Pegasus see

14
00:00:50,750 --> 00:00:47,460
within the boilerplate service module

15
00:00:54,049 --> 00:00:50,760
plus the command module was erected atop

16
00:00:56,959 --> 00:00:54,059
s 810 on July 2nd the overall flight

17
00:00:58,479 --> 00:00:56,969
objectives of Si 10 were to continue

18
00:01:01,400 --> 00:00:58,489
development of the launch vehicle

19
00:01:04,520 --> 00:01:01,410
iterative guidance mode continued

20
00:01:06,620 --> 00:01:04,530
evaluation of system accuracy and place

21
00:01:09,080 --> 00:01:06,630
the Pegasus meteoroid technology

22
00:01:11,149 --> 00:01:09,090
satellite in near-earth orbit the

23
00:01:14,440 --> 00:01:11,159
function of the Pegasus is to provide

24
00:01:16,990 --> 00:01:14,450
meteoroid data in near-earth space

25
00:01:19,429 --> 00:01:17,000
pre-launch checkout of s and progressed

26
00:01:22,190 --> 00:01:19,439
satisfactorily following checkout

27
00:01:24,859 --> 00:01:22,200
countdown demonstration test excessively

28
00:01:30,830 --> 00:01:24,869
completed countdown began within the

29
00:01:33,200 --> 00:01:30,840
scheduled time frame sa 10 liftoff

30
00:01:36,499 --> 00:01:33,210
occurred July 30th at 8:00 a.m. Eastern

31
00:01:38,270 --> 00:01:36,509
Standard Time the first stage the second

32
00:01:42,200 --> 00:01:38,280
manufactured by the Chrysler Corporation

33
00:01:46,520 --> 00:01:42,210
burned for a 148 seconds separated and

34
00:01:49,639 --> 00:01:46,530
fell away the Douglas built second stage

35
00:01:52,130 --> 00:01:49,649
burned about 480 seconds obtaining

36
00:01:55,160 --> 00:01:52,140
programmed cutoff velocity and altitude

37
00:01:58,490 --> 00:01:55,170
stage performance was normal placing the

38
00:02:00,319 --> 00:01:58,500

Pegasus in the required orbit the

39
00:02:02,780 --> 00:02:00,329
following scene is from Pegasus B

40
00:02:05,389 --> 00:02:02,790
kinescope the Apollo command and service

41
00:02:08,180 --> 00:02:05,399
module jettisons mechanically and like

42
00:02:10,639 --> 00:02:08,190
its predecessors pegasus sees wings were

43
00:02:12,320 --> 00:02:10,649
deployed Pegasus C is presently

44
00:02:13,550 --> 00:02:12,330
obtaining information concerning

45
00:02:15,710 --> 00:02:13,560
quantity and

46
00:02:18,740 --> 00:02:15,720
Trading ability of meteoroids in

47
00:02:20,990 --> 00:02:18,750
near-earth space the successful launch

48
00:02:24,110 --> 00:02:21,000
of the tenth and final Saturn one launch

49
00:02:26,420 --> 00:02:24,120
vehicle sa 10 closed out one of the most

50
00:02:29,089 --> 00:02:26,430
successful R&D programs in the history

51
00:02:31,100 --> 00:02:29,099
of rocketry the Saturn one program

52
00:02:34,009 --> 00:02:31,110
conceived to develop a heavy launch

53
00:02:36,470 --> 00:02:34,019
vehicle compiled an unprecedented flight

54
00:02:39,140 --> 00:02:36,480
record of 10 successful flights out of

55
00:02:41,420 --> 00:02:39,150
10 scheduled launches the Saturn 1

56
00:02:43,670 --> 00:02:41,430
program has provided more than a heavy

57
00:02:46,009 --> 00:02:43,680
launch vehicle it has provided the

58
00:02:51,170 --> 00:02:46,019
technological base now being used in

59
00:02:53,210 --> 00:02:51,180
developing Saturn 1b and Saturn 5 the

60
00:02:56,420 --> 00:02:53,220
Saturn 1 program began at the army

61
00:02:58,280 --> 00:02:56,430
ballistic missile agency in 1958 under

62
00:03:01,309 --> 00:02:58,290
the leadership of dr. Wernher von Braun

63
00:03:03,320 --> 00:03:01,319

and Major General John B Medeiros the

64
00:03:07,520 --> 00:03:03,330
purpose of the program under Advanced

65
00:03:09,890 --> 00:03:07,530
Research Projects Agency order 1459 was

66
00:03:12,229 --> 00:03:09,900
to develop a 1 and 1/2 million pound

67
00:03:14,809 --> 00:03:12,239
thrust clustered engine first stage

68
00:03:16,550 --> 00:03:14,819
shortly thereafter the program was

69
00:03:18,590 --> 00:03:16,560
expanded to the development of a

70
00:03:23,000 --> 00:03:18,600
reliable three-stage heavy launch

71
00:03:25,160 --> 00:03:23,010
vehicle for scientific payloads during

72
00:03:26,840 --> 00:03:25,170
the next months studies were made to

73
00:03:29,630 --> 00:03:26,850
determine the most expeditious manner

74
00:03:32,120 --> 00:03:29,640
for using existing tooling hardware and

75
00:03:34,250 --> 00:03:32,130
facilities the new facilities that would

76
00:03:36,949 --> 00:03:34,260
be required for testing this new and

77
00:03:39,050 --> 00:03:36,959
large vehicle and the optimum upper

78
00:03:41,120 --> 00:03:39,060
stages one of the results of these

79
00:03:43,280 --> 00:03:41,130
studies was the awarding of a contract

80
00:03:45,610 --> 00:03:43,290
to the Douglas Aircraft Company to

81
00:03:50,000 --> 00:03:45,620
develop and manufacture the second stage

82
00:03:52,280 --> 00:03:50,010
Douglas began work immediately during

83
00:03:53,770 --> 00:03:52,290
the same time period ABMA started

84
00:03:56,420 --> 00:03:53,780
development of the first stage

85
00:03:59,449 --> 00:03:56,430
consisting of a cluster of nine tanks

86
00:04:01,729 --> 00:03:59,459
and eight h1 engines the engines were an

87
00:04:03,770 --> 00:04:01,739
improved version of the engine used for

88
00:04:06,259 --> 00:04:03,780

the Jupiter and other military missiles

89
00:04:10,629 --> 00:04:06,269
the first stage manufactured was a

90
00:04:12,800 --> 00:04:10,639
static firing test stage during march

91
00:04:15,170 --> 00:04:12,810
1960 technical and administrative

92
00:04:18,229 --> 00:04:15,180
control of the saturn program was

93
00:04:19,759 --> 00:04:18,239
transferred from ARPA to NASA in July

94
00:04:22,580 --> 00:04:19,769
the George C Marshall Space Flight

95
00:04:24,529 --> 00:04:22,590
Center it was activated the nucleus of

96
00:04:26,670 --> 00:04:24,539
the center was the von braun team of

97
00:04:30,910 --> 00:04:26,680
rocket experts

98
00:04:32,590 --> 00:04:30,920
in March 1960 test stage static firing

99
00:04:35,470 --> 00:04:32,600
was started with the firing of two

100
00:04:37,870 --> 00:04:35,480
engines in April all eight engines were

101
00:04:40,510 --> 00:04:37,880
successfully fired throughout the

102
00:04:42,700 --> 00:04:40,520
program the stage was constantly used to

103
00:04:45,310 --> 00:04:42,710
static test modifications and design

104
00:04:48,400 --> 00:04:45,320
changes to ensure a more reliable

105
00:04:53,050 --> 00:04:48,410
vehicle a final acceptance firing was

106
00:04:55,330 --> 00:04:53,060
held in late 1962 Assembly of the first

107
00:04:59,350 --> 00:04:55,340
stage sa one got underway

108
00:05:01,720 --> 00:04:59,360
may 26 1960 following final assembly and

109
00:05:03,610 --> 00:05:01,730
fight qualification testing the first

110
00:05:07,540 --> 00:05:03,620
Marshall built booster was shipped to

111
00:05:09,700 --> 00:05:07,550
Cape Canaveral August 1961 the stage was

112
00:05:12,010 --> 00:05:09,710
shipped by a barge specially built and

113
00:05:16,150 --> 00:05:12,020

modified to move the large flight stage

114
00:05:18,340 --> 00:05:16,160
a few months earlier during may 1961 the

115
00:05:20,260 --> 00:05:18,350
Saturn one was changed from a three

116
00:05:23,380 --> 00:05:20,270
stage scientific satellite launch

117
00:05:26,560 --> 00:05:23,390
vehicle to a two stage man rated vehicle

118
00:05:28,600 --> 00:05:26,570
to support the Apollo program the design

119
00:05:31,150 --> 00:05:28,610
changes caused this decision to be

120
00:05:33,760 --> 00:05:31,160
effective with the fifth flight at Cape

121
00:05:37,630 --> 00:05:33,770
Canaveral sa 1 was erected on the pad

122
00:05:41,860 --> 00:05:37,640
with water ballasted upper stages at

123
00:05:44,380 --> 00:05:41,870
10:06 a.m. October 27th 1961 the first

124
00:05:46,480 --> 00:05:44,390
Saturn one was launched the flight

125
00:05:52,240 --> 00:05:46,490
lasted eight minutes and was considered

126
00:05:57,880 --> 00:05:52,250
highly successful a second Saturn one

127
00:06:03,719 --> 00:05:57,890
was launched April 25th 1962 a third

128
00:06:09,490 --> 00:06:03,729
November 16 1962 and a fourth March 28th

129
00:06:11,050 --> 00:06:09,500
1963 all were successful flight testing

130
00:06:13,210 --> 00:06:11,060
of these vehicles allowed for the

131
00:06:15,029 --> 00:06:13,220
continual development of the first stage

132
00:06:17,969 --> 00:06:15,039
including testing of structures

133
00:06:19,960 --> 00:06:17,979
propulsion system and instrumentation

134
00:06:22,480 --> 00:06:19,970
verification of ground support equipment

135
00:06:24,909 --> 00:06:22,490
and development of an engine out

136
00:06:27,010 --> 00:06:24,919
capability a developed engine out

137
00:06:28,690 --> 00:06:27,020
capability would allow the Saturn to

138
00:06:31,120 --> 00:06:28,700

complete its mission with the loss of

139
00:06:35,140 --> 00:06:31,130
one engine by diverting the propellant

140
00:06:36,820 --> 00:06:35,150
to the remaining engines meanwhile the

141
00:06:38,950 --> 00:06:36,830
Douglas Aircraft Company continued

142
00:06:39,870 --> 00:06:38,960
developments tests and manufacture of

143
00:06:42,840 --> 00:06:39,880
the second stage

144
00:06:44,850 --> 00:06:42,850
called the s4 following testing and

145
00:06:48,210 --> 00:06:44,860
acceptance Doug they shipped the first

146
00:06:50,190 --> 00:06:48,220
s4 stage by guppy to the Cape for mating

147
00:06:54,510 --> 00:06:50,200
with the fifth Saturn one first stage

148
00:06:56,730 --> 00:06:54,520
the s4 stage was powered by six rl10 a3

149
00:06:59,280 --> 00:06:56,740
engines produced by Pratt & Whitney

150
00:07:01,710 --> 00:06:59,290
aircraft that burned liquid hydrogen and

151
00:07:04,830 --> 00:07:01,720
liquid oxygen producing a thrust of

152
00:07:07,230 --> 00:07:04,840
90,000 pounds this stage was the largest

153
00:07:11,930 --> 00:07:07,240
vehicle using high-energy propellants at

154
00:07:14,760 --> 00:07:11,940
the time sa5 was launched January 29th

155
00:07:17,700 --> 00:07:14,770
1964 it made a near-perfect flight

156
00:07:20,280 --> 00:07:17,710
placing more than 37 thousand pounds the

157
00:07:22,560 --> 00:07:20,290
most weight ever into Earth orbit other

158
00:07:25,200 --> 00:07:22,570
milestones included first instrument

159
00:07:30,120 --> 00:07:25,210
unit first redesigned first stage and

160
00:07:33,690 --> 00:07:30,130
initial use of Launch Complex 37 be 1/6

161
00:07:35,400 --> 00:07:33,700
Saturn was launched May 28 1964 again

162
00:07:38,430 --> 00:07:35,410
with the first and second stages live

163
00:07:40,920 --> 00:07:38,440

and an orbiting package exceeding 37

164
00:07:43,010 --> 00:07:40,930
thousand pounds part of this package was

165
00:07:46,320 --> 00:07:43,020
an early model of an Apollo spacecraft

166
00:07:50,580 --> 00:07:46,330
the flight terminated the Saturn one R&D

167
00:07:52,950 --> 00:07:50,590
flights or flights ahead of schedule sa

168
00:07:56,370 --> 00:07:52,960
7 the first operational flight vehicle

169
00:07:58,830 --> 00:07:56,380
was launched September 18 1964 and was

170
00:08:03,060 --> 00:07:58,840
highly successful all major test

171
00:08:06,570 --> 00:08:03,070
objectives were met sa nine launched on

172
00:08:08,870 --> 00:08:06,580
February 16 1965 placed into orbit a

173
00:08:11,040 --> 00:08:08,880
Pegasus satellite designed to obtain

174
00:08:13,470 --> 00:08:11,050
micrometeoroid information concerning

175
00:08:15,960 --> 00:08:13,480
quantity and penetrating ability in the

176
00:08:17,550 --> 00:08:15,970
near Earth orbit the satellite was

177
00:08:20,550 --> 00:08:17,560
developed by fairchild hiller

178
00:08:24,810 --> 00:08:20,560
under MSFC management for NASA's office

179
00:08:27,030 --> 00:08:24,820
of advanced technology the si8 Buster

180
00:08:29,640 --> 00:08:27,040
was assembled checked out and tested at

181
00:08:31,440 --> 00:08:29,650
Marshalls Michou facilities the Chrysler

182
00:08:34,110 --> 00:08:31,450
built Buster was the first industry

183
00:08:36,990 --> 00:08:34,120
produced first stage following a

184
00:08:39,709 --> 00:08:37,000
contractual agreement in November 1961

185
00:08:41,880 --> 00:08:39,719
Mishu was activated shortly thereafter

186
00:08:45,990 --> 00:08:41,890
exhibiting teamwork between the

187
00:08:49,620 --> 00:08:46,000
government and industry si8 was launched

188
00:08:52,140 --> 00:08:49,630

May 25th 1965 it was the night straight

189
00:08:53,650 --> 00:08:52,150
successful Saturn placing the second

190
00:08:56,500 --> 00:08:53,660
meteorite satellite in

191
00:08:58,840 --> 00:08:56,510
Earth orbit yes a tense flight closed

192
00:09:01,870 --> 00:08:58,850
the Saturn one program with a completely

193
00:09:03,640 --> 00:09:01,880
successful record the Saturn one program

194
00:09:06,460 --> 00:09:03,650
made great strides in guidance

195
00:09:08,530 --> 00:09:06,470
propulsion and aerodynamics and these

196
00:09:11,580 --> 00:09:08,540
capabilities are already being applied

197
00:09:13,900 --> 00:09:11,590
in the Saturn 1b and five program

198
00:09:16,240 --> 00:09:13,910
component installation for the first

199
00:09:21,240 --> 00:09:16,250
flight Saturn 1b instrument unit

200
00:09:24,100 --> 00:09:21,250
designated 201 was completed August 26

201
00:09:26,410 --> 00:09:24,110
the instrument units checkout station at

202
00:09:28,240 --> 00:09:26,420
IBM's Huntsville facility was activated

203
00:09:30,150 --> 00:09:28,250
in late August and check out of the

204
00:09:32,590 --> 00:09:30,160
first flight instrument unit began

205
00:09:34,690 --> 00:09:32,600
checkout continued through September

206
00:09:38,530 --> 00:09:34,700
with shipment to KSC scheduled for

207
00:09:40,900 --> 00:09:38,540
October are not eight that Douglass's

208
00:09:43,150 --> 00:09:40,910
Sacto facility the first flight s4b

209
00:09:44,740 --> 00:09:43,160
stage was successfully fired for a

210
00:09:47,680 --> 00:09:44,750
period of four hundred fifty-three

211
00:09:49,600 --> 00:09:47,690
seconds previously two long-duration

212
00:09:51,520 --> 00:09:49,610
static firings of the stage were

213
00:09:53,500 --> 00:09:51,530

attempted but each was terminated

214
00:09:56,170 --> 00:09:53,510
seconds after ignition due to ground

215
00:09:58,060 --> 00:09:56,180
support equipment problems post static

216
00:10:00,700 --> 00:09:58,070
modifications and checkout were then

217
00:10:02,860 --> 00:10:00,710
conducted through August 15 the stage

218
00:10:05,110 --> 00:10:02,870
was removed from the test stand August

219
00:10:06,280 --> 00:10:05,120
28 and prepared for shipment on

220
00:10:08,920 --> 00:10:06,290
September 3rd

221
00:10:10,990 --> 00:10:08,930
it was trucked to Courtland dock loaded

222
00:10:12,910 --> 00:10:11,000
aboard a barge for River shipment to San

223
00:10:14,740 --> 00:10:12,920
Francisco there the stage was

224
00:10:17,310 --> 00:10:14,750
transferred to a commercial ship for

225
00:10:19,540 --> 00:10:17,320
shipment through the Panama Canal to KSC

226
00:10:23,380 --> 00:10:19,550
structural modifications and free

227
00:10:25,120 --> 00:10:23,390
erection checks were performed at me

228
00:10:27,040 --> 00:10:25,130
shoe assembly facility the Chrysler

229
00:10:29,290 --> 00:10:27,050
Corporation completed post static

230
00:10:32,110 --> 00:10:29,300
checkout of the first Saturn 1b flight

231
00:10:36,250 --> 00:10:32,120
booster on July 19th and began preparing

232
00:10:38,590 --> 00:10:36,260
s1 b1 for shipment to KSC on August

233
00:10:40,270 --> 00:10:38,600
night the booster departed Michou by

234
00:10:42,520 --> 00:10:40,280
barge with the facilities checkout

235
00:10:44,620 --> 00:10:42,530
instrument unit this instrument unit

236
00:10:50,170 --> 00:10:44,630
arrived at me shoe in late June from

237
00:10:52,240 --> 00:10:50,180
MSFC arriving at KSC on August 24th the

238
00:10:54,700 --> 00:10:52,250

stages were prepared for erection on

239
00:10:56,980 --> 00:10:54,710
August 11th the flight booster was

240
00:10:59,350 --> 00:10:56,990
erected on launch complex 34 for

241
00:11:02,200 --> 00:10:59,360
facilities checkout I have days later

242
00:11:04,510 --> 00:11:02,210
the s4v facilities checkout stage which

243
00:11:07,120 --> 00:11:04,520
had been delivered to KSC on June 30th

244
00:11:09,220 --> 00:11:07,130
was erected atop the flight booster

245
00:11:11,650 --> 00:11:09,230
followed shortly by the facilities check

246
00:11:13,540 --> 00:11:11,660
out instrument unit after mating the

247
00:11:15,460 --> 00:11:13,550
spacecraft facilities verification

248
00:11:17,920 --> 00:11:15,470
vehicle with the Saturn 1b launch

249
00:11:19,960 --> 00:11:17,930
vehicle a checkout was conducted that

250
00:11:23,770 --> 00:11:19,970
verified the compatibility of the launch

251
00:11:25,450 --> 00:11:23,780
facilities and the space vehicle while

252
00:11:27,700 --> 00:11:25,460
pressure checks were being conducted on

253
00:11:29,580 --> 00:11:27,710
the booster September 10th excessive

254
00:11:31,900 --> 00:11:29,590
pressure was inadvertently applied

255
00:11:33,670 --> 00:11:31,910
collapsing the aft bulkhead of the

256
00:11:36,010 --> 00:11:33,680
instrument compartment of fuel tank

257
00:11:37,990 --> 00:11:36,020
number 1 upon completion of the

258
00:11:40,510 --> 00:11:38,000
remainder of checkout and removal of

259
00:11:43,000 --> 00:11:40,520
grounds test upper stages September 28

260
00:11:46,390 --> 00:11:43,010
the damaged tank was replaced with the

261
00:11:48,910 --> 00:11:46,400
tank from s1 b6 to minimize potential

262
00:11:51,430 --> 00:11:48,920
scheduled impact tank replacement was

263
00:11:54,940 --> 00:11:51,440

accomplished in one day without removing

264
00:11:57,430 --> 00:11:54,950
the booster from the launch complex two

265
00:11:59,650 --> 00:11:57,440
days later the flight s for B was

266
00:12:01,930 --> 00:11:59,660
removed from hangar AF and stacked atop

267
00:12:03,700 --> 00:12:01,940
the booster early next quarter the

268
00:12:05,530 --> 00:12:03,710
flight instrument unit will be erected

269
00:12:10,030 --> 00:12:05,540
completing the assembly of the first

270
00:12:12,030 --> 00:12:10,040
Saturn 1b launch vehicle at Marshall

271
00:12:13,990 --> 00:12:12,040
Saturn 1b dynamic test area

272
00:12:16,630 --> 00:12:14,000
modifications to the test stand

273
00:12:19,390 --> 00:12:16,640
changeover to upper stage configuration

274
00:12:22,140 --> 00:12:19,400
and reinstallation of upper stages was

275
00:12:25,090 --> 00:12:22,150
completed July 29th this configuration

276
00:12:27,360 --> 00:12:25,100
simulates the Saturn 1b flight after the

277
00:12:29,710 --> 00:12:27,370
booster is expended and falls away

278
00:12:31,900 --> 00:12:29,720
dynamic testing is conducted to verify

279
00:12:35,980 --> 00:12:31,910
the filter design of the launch vehicle

280
00:12:37,630 --> 00:12:35,990
guidance system upper stage dynamic

281
00:12:39,370 --> 00:12:37,640
testing continued through the quarter

282
00:12:42,310 --> 00:12:39,380
with completion of testing September

283
00:12:45,580 --> 00:12:42,320
11th analysis of test results is in

284
00:12:47,860 --> 00:12:45,590
process following successful 1b dynamic

285
00:12:50,500 --> 00:12:47,870
testing conversion of the upper stages

286
00:12:54,790 --> 00:12:50,510
to the proper configuration for saturn v

287
00:12:56,530 --> 00:12:54,800
dynamic testing was begun structural

288
00:12:58,120 --> 00:12:56,540

testing of the general dynamics built

289
00:13:01,450 --> 00:12:58,130
instrument unit segments was

290
00:13:04,090 --> 00:13:01,460
successfully completed by MSFC july 22nd

291
00:13:05,860 --> 00:13:04,100
the first three flight instrument unit

292
00:13:09,820 --> 00:13:05,870
structures will be built from general

293
00:13:11,740 --> 00:13:09,830
dynamic segments during August and IU

294
00:13:14,680 --> 00:13:11,750
structure designed to verify the

295
00:13:16,380 --> 00:13:14,690
structural integrity of the iu shells to

296
00:13:19,570 --> 00:13:16,390
be produced by North American Aviation

297
00:13:20,740 --> 00:13:19,580
was rejected by MSFC due to

298
00:13:23,260 --> 00:13:20,750
discrepancies

299
00:13:25,870 --> 00:13:23,270
at the direction of Marshall iBM has

300
00:13:28,810 --> 00:13:25,880
begun assembly of a second test article

301
00:13:31,150 --> 00:13:28,820
from other naa segments structural

302
00:13:35,800 --> 00:13:31,160
testing of this article will start next

303
00:13:38,440 --> 00:13:35,810
quarter at Marshall s 1 b2 underwent two

304
00:13:41,290 --> 00:13:38,450
successful routine static firings the

305
00:13:43,750 --> 00:13:41,300
first on July 9th the second on July 20

306
00:13:46,710 --> 00:13:43,760
the stage was then shipped to Michou

307
00:13:48,880 --> 00:13:46,720
August first arriving August 6

308
00:13:50,430 --> 00:13:48,890
modification and repair to the stage

309
00:13:53,530 --> 00:13:50,440
continued throughout the quarter

310
00:13:59,020 --> 00:13:53,540
delivery to KSC is scheduled for a mid

311
00:14:01,480 --> 00:13:59,030
December also at Chrysler Michou s1 b3

312
00:14:03,220 --> 00:14:01,490
checkout started late last quarter was

313
00:14:05,290 --> 00:14:03,230

completed August 14th

314
00:14:08,170 --> 00:14:05,300
preparations for stage shipment to

315
00:14:10,480 --> 00:14:08,180
Marshall continued to September 9th it

316
00:14:13,090 --> 00:14:10,490
was shipped by barge the same day just

317
00:14:16,510 --> 00:14:13,100
in advance of Hurricane Betsy arriving

318
00:14:20,950 --> 00:14:16,520
at MSFC September 16th static testing is

319
00:14:23,200 --> 00:14:20,960
scheduled for October s 1b for assembly

320
00:14:24,970 --> 00:14:23,210
continued through the quarter pre static

321
00:14:28,870 --> 00:14:24,980
check out of the stage will begin in

322
00:14:32,230 --> 00:14:28,880
early October stage fabrication for s1

323
00:14:34,480 --> 00:14:32,240
b5 was completed July 15th tank

324
00:14:37,030 --> 00:14:34,490
clustering started the same day and was

325
00:14:38,980 --> 00:14:37,040
completed in late August stage assembly

326
00:14:43,600 --> 00:14:38,990
continued through the remainder of the

327
00:14:45,520 --> 00:14:43,610
quarter s1 B 6 stage fabrication started

328
00:14:47,740 --> 00:14:45,530
last quarter continued through this

329
00:14:51,370 --> 00:14:47,750
period with tank clustering expected to

330
00:14:54,250 --> 00:14:51,380
begin next quarter s1 b7 fabrication was

331
00:14:57,190 --> 00:14:54,260
begun August 19th with fabrication of

332
00:15:00,310 --> 00:14:57,200
the lower thrust ring fabrication of the

333
00:15:02,260 --> 00:15:00,320
upper thrust ring began August 26th work

334
00:15:05,590 --> 00:15:02,270
continued through the remainder of the

335
00:15:09,250 --> 00:15:05,600
quarter at Douglass's Huntington Beach

336
00:15:12,340 --> 00:15:09,260
facility s4 b202 checkout was terminated

337
00:15:15,160 --> 00:15:12,350
August 12th following modification the

338
00:15:17,530 --> 00:15:15,170

stage was transported to sacto it was

339
00:15:19,720 --> 00:15:17,540
then offloaded and installed in beta

340
00:15:22,690 --> 00:15:19,730
test stands number three the morning of

341
00:15:24,880 --> 00:15:22,700
September 2nd pre firing operations are

342
00:15:27,010 --> 00:15:24,890
in process with static firing and

343
00:15:30,760 --> 00:15:27,020
delivery to Cape Kennedy scheduled for

344
00:15:32,890 --> 00:15:30,770
next quarter s4 b203 checkout began

345
00:15:35,970 --> 00:15:32,900
August 14th and it underwent final

346
00:15:38,830 --> 00:15:35,980
component installation through

347
00:15:40,480 --> 00:15:38,840
17204 assembly started last quarter

348
00:15:43,650 --> 00:15:40,490
continued with joining of the forward

349
00:15:46,690 --> 00:15:43,660
and aft skirt and thrust structure

350
00:15:48,700 --> 00:15:46,700
insulation of the 205 LH to tank was

351
00:15:53,110 --> 00:15:48,710
interrupted in early September to allow

352
00:15:56,140 --> 00:15:53,120
modifications and repair meanwhile s4b

353
00:15:58,240 --> 00:15:56,150
206 work progress continued with joining

354
00:16:01,270 --> 00:15:58,250
of the forward and aft common dome to

355
00:16:04,180 --> 00:16:01,280
form the common bulkhead following

356
00:16:06,880 --> 00:16:04,190
completion of saturn v s4b battleship

357
00:16:09,580 --> 00:16:06,890
testing August 20th preparations began

358
00:16:14,290 --> 00:16:09,590
for converting beta stand one prostatic

359
00:16:17,110 --> 00:16:14,300
firing s4b flight stages at IBM

360
00:16:19,270 --> 00:16:17,120
Huntsville SIU 202 component

361
00:16:21,190 --> 00:16:19,280
installation started last quarter

362
00:16:23,170 --> 00:16:21,200
continued through September with

363
00:16:25,330 --> 00:16:23,180

completion and check-out scheduled for

364
00:16:30,280 --> 00:16:25,340
next quarter shipment to the Cape is

365
00:16:31,870 --> 00:16:30,290
scheduled in December SIU 203 structural

366
00:16:34,360 --> 00:16:31,880
assembly was completed in early

367
00:16:36,490 --> 00:16:34,370
September component installation is in

368
00:16:38,110 --> 00:16:36,500
process with completion of assembly

369
00:16:41,680 --> 00:16:38,120
scheduled for next quarter

370
00:16:44,290 --> 00:16:41,690
SIU 204 structural segments furnished by

371
00:16:47,020 --> 00:16:44,300
North American Aviation were received at

372
00:16:51,490 --> 00:16:47,030
IBM September 15th and are now in

373
00:16:53,230 --> 00:16:51,500
rounding out operation at KSC mechanical

374
00:16:55,540 --> 00:16:53,240
and electrical ground support equipment

375
00:16:58,390 --> 00:16:55,550
was delivered during this quarter for

376
00:17:00,310 --> 00:16:58,400
use at launch complex 34 final

377
00:17:04,870 --> 00:17:00,320
electrical equipment installation is

378
00:17:06,970 --> 00:17:04,880
underway at marshall ii j2 engine

379
00:17:09,220 --> 00:17:06,980
delivered by Rocketdyne under wet

380
00:17:11,439 --> 00:17:09,230
initial static firing during august in

381
00:17:17,710 --> 00:17:11,449
the center's s4f eve battleship test

382
00:17:20,350 --> 00:17:17,720
stem rocket dean's j2 engine flight

383
00:17:23,370 --> 00:17:20,360
rating test series begun last quarter

384
00:17:26,350 --> 00:17:23,380
was completed July 21st at Santa Susana

385
00:17:29,260 --> 00:17:26,360
25 firings were conducted for a total

386
00:17:31,210 --> 00:17:29,270
performance of 46 minuts deficiencies

387
00:17:34,410 --> 00:17:31,220
will be corrected prior to completion of

388
00:17:37,270 --> 00:17:34,420

engine qualification frt engine number

389
00:17:40,780 --> 00:17:37,280
2023 was disassembled for engineering

390
00:17:43,510 --> 00:17:40,790
inspection in august engine number 2032

391
00:17:46,420 --> 00:17:43,520
was acceptance tested and 200k

392
00:17:47,240 --> 00:17:46,430
qualification test series began at delta

393
00:17:50,150 --> 00:17:47,250
ii test

394
00:17:54,880 --> 00:17:50,160
stand in August qualification tests are

395
00:18:00,980 --> 00:17:58,310
new device called a four axis numerical

396
00:18:03,350 --> 00:18:00,990
control measuring inspection machine is

397
00:18:06,410 --> 00:18:03,360
being used by Rocketdyne in connection

398
00:18:08,420 --> 00:18:06,420
with j2 injector assembly it permits

399
00:18:10,580 --> 00:18:08,430
time reduction as well as increased

400
00:18:13,430 --> 00:18:10,590
reliability of measuring data and

401
00:18:16,400 --> 00:18:13,440
fulfills raka dines integrated systems

402
00:18:20,140 --> 00:18:16,410
approach of using numerical control from

403
00:18:22,700 --> 00:18:20,150
design intent to finished component at

404
00:18:24,920 --> 00:18:22,710
Michou cleanup and repair of the

405
00:18:27,350 --> 00:18:24,930
facility is still under way as a result

406
00:18:29,630 --> 00:18:27,360
of Hurricane Betsy the wind and high

407
00:18:32,330 --> 00:18:29,640
water damaged facilities at miss you in

408
00:18:34,460 --> 00:18:32,340
varying degrees barges were beached

409
00:18:37,280 --> 00:18:34,470
windows were shattered and much of the

410
00:18:40,190 --> 00:18:37,290
roof damaged however no impact on

411
00:18:43,730 --> 00:18:40,200
Chrysler's s1b schedule is expected as a

412
00:18:45,380 --> 00:18:43,740
result of the hurricane Marshall Space

413
00:18:47,120 --> 00:18:45,390

Flight Center has been following with

414
00:18:49,520 --> 00:18:47,130
great interests the progress of the

415
00:18:52,310 --> 00:18:49,530
super guppy built and financed by aero

416
00:18:54,920 --> 00:18:52,320
spacelines incorporated on September

417
00:18:57,500 --> 00:18:54,930
17th the super guppy based on the Boeing

418
00:19:00,110 --> 00:18:57,510
Strato Cruiser aircraft landed at

419
00:19:02,840 --> 00:19:00,120
Redstone airstrip at Huntsville it is

420
00:19:05,930 --> 00:19:02,850
the only aircraft capable of carrying an

421
00:19:10,160 --> 00:19:05,940
S for B an assembled instrument unit and

422
00:19:12,620 --> 00:19:10,170
certain Apollo spacecraft items in

423
00:19:14,810 --> 00:19:12,630
summary the MutS July August and

424
00:19:16,940 --> 00:19:14,820
September witnessed the close of the

425
00:19:19,370 --> 00:19:16,950
highly successful Saturn one program

426
00:19:22,610 --> 00:19:19,380
entertainment of major milestones within

427
00:19:26,210 --> 00:19:22,620
the one B program preparations for the

428
00:19:29,600 --> 00:19:26,220
flight of Saturn 1b continued Saturn 1b

429
00:19:32,540 --> 00:19:29,610
stage build-up activation of Marshalls

430
00:19:34,970 --> 00:19:32,550
battleship stage for Silla assembly

431
00:19:37,280 --> 00:19:34,980
delivery and testing of ground support

432
00:19:38,840 --> 00:19:37,290
equipment and new methods of

433
00:19:44,019 --> 00:19:38,850
transportation