



1  
00:00:08,720 --> 00:00:04,070  
thank very much Leon for those very very

2  
00:00:10,640 --> 00:00:08,730  
kind remarks you know up when asked

3  
00:00:13,070 --> 00:00:10,650  
welts one rumor it's not true that on

4  
00:00:14,839 --> 00:00:13,080  
that last flight NASA would not let me

5  
00:00:16,640 --> 00:00:14,849  
make a spacewalk because they were

6  
00:00:22,189 --> 00:00:16,650  
afraid of my age I might wander off

7  
00:00:25,279 --> 00:00:22,199  
someplace didn't happen he I think we

8  
00:00:28,400 --> 00:00:25,289  
should hate NASA happy birthday nobody

9  
00:00:35,630 --> 00:00:28,410  
said that yet tonight happy birthday a

10  
00:00:37,760 --> 00:00:35,640  
NASA 50th some of us here this evening

11  
00:00:41,420 --> 00:00:37,770  
were at the beginning of the days of

12  
00:00:43,220 --> 00:00:41,430  
NASA had been preceded by the old NACA

13  
00:00:46,369 --> 00:00:43,230

the national advisory committee for

14

00:00:48,260 --> 00:00:46,379

aeronautics the alert will hear from a

15

00:00:50,779 --> 00:00:48,270

little bit later of course I think even

16

00:00:55,340 --> 00:00:50,789

predates me with the Association there

17

00:00:57,080 --> 00:00:55,350

because he was flying for NACA at

18

00:01:01,099 --> 00:00:57,090

Cleveland and out in the desert out of

19

00:01:04,609 --> 00:01:01,109

Dryden Space Center Bryden center NASA

20

00:01:09,620 --> 00:01:04,619

Center even before I became a member of

21

00:01:12,950 --> 00:01:09,630

the group we go back to where the old

22

00:01:14,990 --> 00:01:12,960

headquarters was off the corner of

23

00:01:17,719 --> 00:01:15,000

lafayette park and that was where NAC

24

00:01:20,450 --> 00:01:17,729

you see a was headquartered at that time

25

00:01:24,340 --> 00:01:20,460

a single house over there and that was

26  
00:01:28,609 --> 00:01:24,350  
the that was the headquarters for NACA

27  
00:01:30,050 --> 00:01:28,619  
now if we could just stop and say what

28  
00:01:31,940 --> 00:01:30,060  
do we think are the couple of things

29  
00:01:33,890 --> 00:01:31,950  
that made this country great but let us

30  
00:01:37,270 --> 00:01:33,900  
develop in a very short period of time

31  
00:01:40,039 --> 00:01:37,280  
in just about a hundred and twenty years

32  
00:01:43,249 --> 00:01:40,049  
into the leader leading nation in the

33  
00:01:44,780 --> 00:01:43,259  
whole world well if you thought about it

34  
00:01:46,580 --> 00:01:44,790  
for a while I think most people would

35  
00:01:48,889 --> 00:01:46,590  
think well education that we came

36  
00:01:50,330 --> 00:01:48,899  
general in this country it was for

37  
00:01:52,370 --> 00:01:50,340  
everybody it wasn't just for the

38  
00:01:52,660 --> 00:01:52,380

privileged or those kids from the castle

39

00:01:56,050 --> 00:01:52,670

is

40

00:01:58,660 --> 00:01:56,060

might have been in in previous ages but

41

00:02:02,050 --> 00:01:58,670

in this country education came to be for

42

00:02:03,789 --> 00:02:02,060

everyone but number two then was just

43

00:02:07,469 --> 00:02:03,799

about have to be the fact that this

44

00:02:10,029 --> 00:02:07,479

nation put more into basic research

45

00:02:13,690 --> 00:02:10,039

basic fundamental learning the new

46

00:02:16,900 --> 00:02:13,700

things first and that's what took us and

47

00:02:18,550 --> 00:02:16,910

for me a country over here and separated

48

00:02:21,040 --> 00:02:18,560

from most of the rest of the world and

49

00:02:24,550 --> 00:02:21,050

yet we became a world leader in about a

50

00:02:29,110 --> 00:02:24,560

hundred and twenty years in my view the

51  
00:02:32,860 --> 00:02:29,120  
old NACA and his subsequent successor at

52  
00:02:35,830 --> 00:02:32,870  
masa just exemplifies what I'm talking

53  
00:02:38,320 --> 00:02:35,840  
about with that the Wright brothers in

54  
00:02:40,090 --> 00:02:38,330  
1903 made made the first light when

55  
00:02:43,030 --> 00:02:40,100  
other nations were trying also but

56  
00:02:46,270 --> 00:02:43,040  
following that our nation decided as a

57  
00:02:50,830 --> 00:02:46,280  
government to do basic research in this

58  
00:02:53,590 --> 00:02:50,840  
new area new era of flight and NAC would

59  
00:02:56,740 --> 00:02:53,600  
an ACA was formed in 1915 and they

60  
00:02:59,470 --> 00:02:56,750  
looked at at air foils and aerodynamics

61  
00:03:01,660 --> 00:02:59,480  
shapes they put wind tunnels with high

62  
00:03:03,280 --> 00:03:01,670  
and low capacity look into structures

63  
00:03:05,470 --> 00:03:03,290

they looked into handling

64

00:03:08,560 --> 00:03:05,480

characteristics of airplanes and and

65

00:03:10,449 --> 00:03:08,570

spins and all the things to do with

66

00:03:13,000 --> 00:03:10,459

aviation including such things like

67

00:03:15,069 --> 00:03:13,010

metallurgy for engines so they became

68

00:03:17,080 --> 00:03:15,079

more reliable and then that had a

69

00:03:18,600 --> 00:03:17,090

spin-off of its own into such things as

70

00:03:21,120 --> 00:03:18,610

even made those medals of

71

00:03:23,760 --> 00:03:21,130

available for longer lasting plows on

72

00:03:25,380 --> 00:03:23,770

the farms and for new bearings for cars

73

00:03:31,410 --> 00:03:25,390

so you didn't have to wait so long to

74

00:03:35,210 --> 00:03:31,420

break them in and then I think me what

75

00:03:37,560 --> 00:03:35,220

happened next was that the private

76  
00:03:40,110 --> 00:03:37,570  
investment in this country took over

77  
00:03:42,300 --> 00:03:40,120  
with what those facts were that the

78  
00:03:45,449 --> 00:03:42,310  
government had sponsored through the old

79  
00:03:48,120 --> 00:03:45,459  
NACA we had companies come out there

80  
00:03:50,610 --> 00:03:48,130  
were like Martin and Lockheed in North

81  
00:03:53,520 --> 00:03:50,620  
American Douglas Northrop chance vought

82  
00:03:56,150 --> 00:03:53,530  
and of course Boeing which became the

83  
00:03:58,410 --> 00:03:56,160  
supplier of airliners to the world and

84  
00:04:00,810 --> 00:03:58,420  
open whole new vistas that just

85  
00:04:03,140 --> 00:04:00,820  
revolutionized the world interest with

86  
00:04:05,760 --> 00:04:03,150  
their ability to take people and travel

87  
00:04:08,760 --> 00:04:05,770  
greater distances in a short period of

88  
00:04:11,190 --> 00:04:08,770

time and we had World War two and all

89

00:04:14,820 --> 00:04:11,200

the thousands upon thousands of

90

00:04:17,940 --> 00:04:14,830

airplanes that used that NACA data to

91

00:04:20,909 --> 00:04:17,950

make the world's greatest air forces and

92

00:04:23,010 --> 00:04:20,919

whatever service they served in and it

93

00:04:25,800 --> 00:04:23,020

was it all came about because of some of

94

00:04:29,219 --> 00:04:25,810

that NACA research work they had not

95

00:04:33,420 --> 00:04:29,229

done earlier well that's the NASA

96

00:04:36,420 --> 00:04:33,430

heritage NACA went out of existence

97

00:04:39,330 --> 00:04:36,430

after Sputnik president eisenhower

98

00:04:41,990 --> 00:04:39,340

decided that we needed somebody to get

99

00:04:45,420 --> 00:04:42,000

into this act ourselves we were behind

100

00:04:49,650 --> 00:04:45,430

and so it was President Eisenhower that

101  
00:04:51,890 --> 00:04:49,660  
sponsored NASA and it became not NACA

102  
00:04:57,300 --> 00:04:51,900  
but the National Aeronautics and Space

103  
00:05:00,719 --> 00:04:57,310  
Administration and that was added to the

104  
00:05:03,020 --> 00:05:00,729  
other NASA missions and so we started

105  
00:05:06,740 --> 00:05:03,030  
the manned space program about

106  
00:05:10,070 --> 00:05:06,750  
exactly 50 years ago and it was in the

107  
00:05:12,110 --> 00:05:10,080  
depths of the Cold War we remembered

108  
00:05:14,150 --> 00:05:12,120  
very very well the Soviets claiming

109  
00:05:17,000 --> 00:05:14,160  
research and technical superiority to

110  
00:05:19,070 --> 00:05:17,010  
the United States thousands of students

111  
00:05:21,170 --> 00:05:19,080  
being educated in the Soviet Union and

112  
00:05:23,870 --> 00:05:21,180  
sent back to their countries that's

113  
00:05:25,970 --> 00:05:23,880

trying to play catch-up and their

114

00:05:29,120 --> 00:05:25,980

boosters worked and ours too often were

115

00:05:32,270 --> 00:05:29,130

blowing up on the launch pads so they

116

00:05:35,660 --> 00:05:32,280

had beat us into orbit but we did come

117

00:05:38,300 --> 00:05:35,670

back and we came back in mercury with

118

00:05:41,330 --> 00:05:38,310

the suborbital flight in 61 the orbital

119

00:05:43,940 --> 00:05:41,340

flight in 62 Jem and I told us how to

120

00:05:46,010 --> 00:05:43,950

run taught us how to rendezvous Apollo

121

00:05:47,800 --> 00:05:46,020

with me Oh made that incredible first

122

00:05:49,820 --> 00:05:47,810

step on the moon that you saw in the

123

00:05:51,950 --> 00:05:49,830

footprint a little while ago I always

124

00:05:59,390 --> 00:05:51,960

get goosebumps every seat time I see

125

00:06:02,960 --> 00:05:59,400

that thing one in 1973 read a Space Lab

126

00:06:05,930 --> 00:06:02,970

and it started real big time research

127

00:06:08,540 --> 00:06:05,940

not just traveling but big time research

128

00:06:11,090 --> 00:06:08,550

and started this out on the track of

129

00:06:14,240 --> 00:06:11,100

benefits that would benefit us right

130

00:06:17,780 --> 00:06:14,250

here on earth in 86 we were brought up

131

00:06:20,360 --> 00:06:17,790

short because we were reminded of what a

132

00:06:23,120 --> 00:06:20,370

dangerous businesses can be if we're not

133

00:06:27,080 --> 00:06:23,130

careful when we had the Challenger and

134

00:06:30,620 --> 00:06:27,090

all of that accident at that time in 98

135

00:06:32,420 --> 00:06:30,630

we started the space station later in 98

136

00:06:34,460 --> 00:06:32,430

we had a space station and later it

137

00:06:37,610 --> 00:06:34,470

became the International Space Station

138

00:06:41,720 --> 00:06:37,620

with 15 other nations with us and became

139

00:06:43,580 --> 00:06:41,730

a long term research into benefits of

140

00:06:46,730 --> 00:06:43,590

what would accrue to people right here

141

00:06:49,460 --> 00:06:46,740

on earth if we just use that new

142

00:06:54,460 --> 00:06:49,470

laboratory of space which we'd never had

143

00:06:57,030 --> 00:06:54,470

the opportunity to use before we plan

144

00:06:59,980 --> 00:06:57,040

NASA planned at that time to get into

145

00:07:02,080 --> 00:06:59,990

biotechnology combustion research fluid

146

00:07:06,880 --> 00:07:02,090

physics fundamental physics material

147

00:07:09,910 --> 00:07:06,890

science but in January of 0 for the

148

00:07:13,270 --> 00:07:09,920

president announced president directed a

149

00:07:16,030 --> 00:07:13,280

new mission for NASA was to go to the

150

00:07:17,680 --> 00:07:16,040

moon and to Mars and everybody went

151

00:07:19,600 --> 00:07:17,690

along with that I went along with that

152

00:07:23,410 --> 00:07:19,610

thought it was great except for one

153

00:07:26,290 --> 00:07:23,420

thing the money didn't follow we had no

154

00:07:28,570 --> 00:07:26,300

plans for new money and Mike Griffin

155

00:07:30,310 --> 00:07:28,580

look you'll hear from later was given

156

00:07:33,460 --> 00:07:30,320

what I viewed as an almost impossible

157

00:07:35,470 --> 00:07:33,470

job do everything you're doing now at

158

00:07:38,110 --> 00:07:35,480

NASA that's worked out so well for the

159

00:07:40,270 --> 00:07:38,120

benefit of this country but add to it

160

00:07:44,590 --> 00:07:40,280

just a couple of little projects like

161

00:07:46,480 --> 00:07:44,600

going on to the moon and to Mars well he

162

00:07:49,570 --> 00:07:46,490

had no choice but to do some things like

163

00:07:51,550 --> 00:07:49,580

cutting research in certain areas so

164

00:07:53,830 --> 00:07:51,560

today we have a station up there that's

165

00:07:56,380 --> 00:07:53,840

just about to be completed completing

166

00:07:59,590 --> 00:07:56,390

the year or so we were was spent a

167

00:08:02,800 --> 00:07:59,600

little over 100 billion dollars on it

168

00:08:04,570 --> 00:08:02,810

that's be billion dollars on it but

169

00:08:06,280 --> 00:08:04,580

we're not using it for the type research

170

00:08:08,790 --> 00:08:06,290

that we should we should use it for

171

00:08:11,409 --> 00:08:08,800

because we don't have the money for that

172

00:08:14,740 --> 00:08:11,419

I've always viewed space flight as being

173

00:08:16,930 --> 00:08:14,750

of two purposes but both of them are

174

00:08:18,670 --> 00:08:16,940

research one is mac pro research and one

175

00:08:21,130 --> 00:08:18,680

is micro research and I think they go

176

00:08:23,740 --> 00:08:21,140

hand in hand or should if we're to get

177

00:08:26,950 --> 00:08:23,750

the major benefit out of everything that

178

00:08:29,490 --> 00:08:26,960

we do in space macro research is the

179

00:08:31,620 --> 00:08:29,500

exploration going out farther learning

180

00:08:33,240 --> 00:08:31,630

how to go to different places just the

181

00:08:35,610 --> 00:08:33,250

traveling to different places what we

182

00:08:36,990 --> 00:08:35,620

learned just from doing that and from

183

00:08:39,270 --> 00:08:37,000

building the facilities and the

184

00:08:41,760 --> 00:08:39,280

spacecraft to go to those different

185

00:08:45,210 --> 00:08:41,770

places but along with that goes the

186

00:08:48,780 --> 00:08:45,220

micro research but i think is equally

187

00:08:51,660 --> 00:08:48,790

important but we have to save more on

188

00:08:54,270 --> 00:08:51,670

that they even do any of that research

189

00:08:56,010 --> 00:08:54,280

now or even having to cut out our own

190

00:08:59,100 --> 00:08:56,020

transport to the International Space

191

00:09:03,150 --> 00:08:59,110

Station for a number of years after we

192

00:09:05,670 --> 00:09:03,160

retire the shuttle in 2010 well that

193

00:09:08,130 --> 00:09:05,680

sounds a little blue me but I certainly

194

00:09:10,680 --> 00:09:08,140

remain an optimist even at this late

195

00:09:13,890 --> 00:09:10,690

date to be able to get more money to

196

00:09:16,080 --> 00:09:13,900

restore but I would see as a balance and

197

00:09:18,540 --> 00:09:16,090

which I think most people would see as a

198

00:09:24,900 --> 00:09:18,550

better balance it's an appropriate

199

00:09:28,080 --> 00:09:24,910

follow-on to naca and NASA's past prep

200

00:09:31,470 --> 00:09:28,090

past but it's also the key to America's

201  
00:09:36,360 --> 00:09:31,480  
future and to America's continued world

202  
00:09:39,210 --> 00:09:36,370  
leadership where we go an exploration is

203  
00:09:40,720 --> 00:09:39,220  
certainly important but what we learn

204  
00:09:42,870 --> 00:09:40,730  
and

205  
00:09:46,389 --> 00:09:42,880  
from each of those steps along the way

206  
00:09:49,689 --> 00:09:46,399  
will benefit every man woman and child

207  
00:09:54,160 --> 00:09:49,699  
in our nation and eventually around the

208  
00:09:56,259 --> 00:09:54,170  
world the next 50 who knows but I'm