



1  
00:00:23,509 --> 00:00:19,279  
the year was 1903 horrible and Wilbur

2  
00:00:25,700 --> 00:00:23,519  
Wright had a vision to fly only 12 years

3  
00:00:27,679 --> 00:00:25,710  
after that historic first flight of the

4  
00:00:30,109 --> 00:00:27,689  
dunes of Kitty Hawk North Carolina the

5  
00:00:32,799 --> 00:00:30,119  
United States Congress began to organize

6  
00:00:35,959 --> 00:00:32,809  
a National Aeronautics research effort

7  
00:00:37,610 --> 00:00:35,969  
in march of 1915 this effort became

8  
00:00:42,260 --> 00:00:37,620  
known as the national advisory committee

9  
00:00:44,600 --> 00:00:42,270  
for aeronautics or NACA ground was

10  
00:00:49,100 --> 00:00:44,610  
broken for the first NACA facility on

11  
00:00:50,690 --> 00:00:49,110  
July seventeenth 1917 this center would

12  
00:00:52,790 --> 00:00:50,700  
be named the Langley Memorial

13  
00:00:55,549 --> 00:00:52,800

aeronautical laboratory after professor

14

00:00:58,760 --> 00:00:55,559

Samuel Pierpont Langley a 19th century

15

00:01:01,910 --> 00:00:58,770

inventor aviation pioneer and competitor

16

00:01:04,520 --> 00:01:01,920

of the Wright brothers this laboratory

17

00:01:06,620 --> 00:01:04,530

one of the world's premier space and

18

00:01:08,179 --> 00:01:06,630

aviation research facilities would

19

00:01:11,359 --> 00:01:08,189

become known as the Langley Research

20

00:01:13,609 --> 00:01:11,369

Center in the years to come Langley

21

00:01:15,310 --> 00:01:13,619

Research Center is evolved today into

22

00:01:19,370 --> 00:01:15,320

one of the leading aerospace research

23

00:01:24,539 --> 00:01:19,380

laboratories in the world welcome to

24

00:01:30,280 --> 00:01:27,880

located in hampton virginia NASA Langley

25

00:01:32,889 --> 00:01:30,290

is the first and oldest NASA facility in

26  
00:01:35,080 --> 00:01:32,899  
the country Langley began contributing

27  
00:01:38,469 --> 00:01:35,090  
to the u.s. space program as early as

28  
00:01:42,820 --> 00:01:38,479  
1940 Project Mercury was born at NASA

29  
00:01:45,399 --> 00:01:42,830  
Langley in the 1950s over the last 75

30  
00:01:47,859 --> 00:01:45,409  
years Langley Research Center has made

31  
00:01:50,320 --> 00:01:47,869  
contributions to flight flight research

32  
00:01:51,760 --> 00:01:50,330  
and the tools and instruments used in

33  
00:01:54,880 --> 00:01:51,770  
the development of Aeronautics and

34  
00:01:57,580 --> 00:01:54,890  
aerospace industries since nineteen

35  
00:01:59,590 --> 00:01:57,590  
fifty-eight when NASA was formed Langley

36  
00:02:01,180 --> 00:01:59,600  
Research Center has made significant

37  
00:02:03,340 --> 00:02:01,190  
contributions in the training of

38  
00:02:05,050 --> 00:02:03,350

scientists and managers thereby

39

00:02:07,889 --> 00:02:05,060

strengthening the entire infrastructure

40

00:02:10,449 --> 00:02:07,899

of our nation's aerospace industry

41

00:02:14,009 --> 00:02:10,459

Langley personnel form the core staff

42

00:02:16,930 --> 00:02:14,019

for many of the other NASA facilities

43

00:02:18,759 --> 00:02:16,940

today there are nine major NASA field

44

00:02:22,479 --> 00:02:18,769

centers directed by the headquarters

45

00:02:24,550 --> 00:02:22,489

office located in Washington DC research

46

00:02:28,509 --> 00:02:24,560

laboratories include Langley in Hampton

47

00:02:32,830 --> 00:02:28,519

Virginia the Lewis Research Center in

48

00:02:35,759 --> 00:02:32,840

Cleveland Ohio and the Ames Research

49

00:02:38,560 --> 00:02:35,769

Facility in Mountain View California

50

00:02:42,090 --> 00:02:38,570

test flight facilities include Wallace

51  
00:02:46,270 --> 00:02:42,100  
located on Wallops Island Virginia and

52  
00:02:47,920 --> 00:02:46,280  
Bryden in Edwards California Kennedy

53  
00:02:50,349 --> 00:02:47,930  
Space Center in Florida serves as the

54  
00:02:53,400 --> 00:02:50,359  
primary site for tests check out and

55  
00:02:55,840 --> 00:02:53,410  
launch of space vehicles and payloads

56  
00:02:58,060 --> 00:02:55,850  
Johnson Space Center in Houston Texas

57  
00:03:00,460 --> 00:02:58,070  
manages the space shuttle program and

58  
00:03:03,490 --> 00:03:00,470  
has a lead role in space station

59  
00:03:05,650 --> 00:03:03,500  
development Marshall Space Flight Center

60  
00:03:07,750 --> 00:03:05,660  
in Huntsville Alabama emphasizes

61  
00:03:09,880 --> 00:03:07,760  
projects involving investigation and

62  
00:03:13,050 --> 00:03:09,890  
application of space technologies as

63  
00:03:15,069 --> 00:03:13,060

well as problems on earth and in space

64

00:03:18,490 --> 00:03:15,079

Goddard Space Flight Center in Greenbelt

65

00:03:20,890 --> 00:03:18,500

Maryland designs fabricates and tests

66

00:03:24,430 --> 00:03:20,900

satellites that survey the earth the Sun

67

00:03:25,750 --> 00:03:24,440

and the universe while the Jet

68

00:03:28,120 --> 00:03:25,760

Propulsion Laboratory in Pasadena

69

00:03:30,400 --> 00:03:28,130

California is involved with activities

70

00:03:32,880 --> 00:03:30,410

associated with deep space scientific

71

00:03:35,270 --> 00:03:32,890

missions engineering subsystems

72

00:03:37,520 --> 00:03:35,280

instrument development at data reduction

73

00:03:40,520 --> 00:03:37,530

and analysis required by deep space

74

00:03:42,590 --> 00:03:40,530

flight and finally the Stennis Space

75

00:03:44,960 --> 00:03:42,600

Center in Mississippi where large rocket

76

00:03:47,480 --> 00:03:44,970

propulsion systems are tested as well as

77

00:03:50,990 --> 00:03:47,490

research programs involving space oceans

78

00:03:53,630 --> 00:03:51,000

and the earth take place here at NASA

79

00:03:55,580 --> 00:03:53,640

Langley our mission is simple to provide

80

00:03:58,729 --> 00:03:55,590

basic research in aeronautics and space

81

00:04:02,540 --> 00:03:58,739

technology to create conceptual designs

82

00:04:05,990 --> 00:04:02,550

and theories for primary elements makeup

83

00:04:09,979 --> 00:04:06,000

likely Research Center our people our

84

00:04:13,250 --> 00:04:09,989

facilities our budget and our

85

00:04:15,590 --> 00:04:13,260

relationship with others the center

86

00:04:18,259 --> 00:04:15,600

employs approximately 3,000 civil

87

00:04:20,659 --> 00:04:18,269

service employees as well as 2,500

88

00:04:23,180 --> 00:04:20,669

support service contractors university

89

00:04:24,800 --> 00:04:23,190

staff members and a contingent of 100

90

00:04:28,730 --> 00:04:24,810

military people from the arm to the

91

00:04:29,960 --> 00:04:28,740

copter research group about one-half of

92

00:04:32,270 --> 00:04:29,970

our workforce has earned master's

93

00:04:35,570 --> 00:04:32,280

degrees and about twenty percent of

94

00:04:37,820 --> 00:04:35,580

reached doctoral level our facilities

95

00:04:41,540 --> 00:04:37,830

are currently valued at about 2 billion

96

00:04:43,610 --> 00:04:41,550

dogs line Lee has over 40 wind tunnels

97

00:04:46,580 --> 00:04:43,620

the highest concentration of wind

98

00:04:49,040 --> 00:04:46,590

tunnels in the Western world these wind

99

00:04:51,469 --> 00:04:49,050

tunnels used for testing scale models of

100

00:04:53,750 --> 00:04:51,479

aircraft are capable of simulating wind

101  
00:04:58,040 --> 00:04:53,760  
speeds from zero miles per hour up to

102  
00:05:01,150 --> 00:04:58,050  
Mach 25 or about 17,500 miles per hour

103  
00:05:03,800 --> 00:05:01,160  
which is equal to orbital velocity

104  
00:05:05,810 --> 00:05:03,810  
Langley's annual budget is approximately

105  
00:05:07,940 --> 00:05:05,820  
six hundred million dollars of which

106  
00:05:10,340 --> 00:05:07,950  
over 300 million is set aside for

107  
00:05:14,029 --> 00:05:10,350  
research the remaining funds operate

108  
00:05:15,950 --> 00:05:14,039  
facilities and pay salaries the main

109  
00:05:18,110 --> 00:05:15,960  
product of the center is the knowledge

110  
00:05:21,290 --> 00:05:18,120  
and information which we provide to

111  
00:05:23,180 --> 00:05:21,300  
others the information generated through

112  
00:05:25,550 --> 00:05:23,190  
research at Langley is pass on to

113  
00:05:28,590 --> 00:05:25,560

industry universities and other

114

00:05:30,820 --> 00:05:28,600

government agencies

115

00:05:33,130 --> 00:05:30,830

information is also passed on to the

116

00:05:35,560 --> 00:05:33,140

general public as spin-off applications

117

00:05:37,840 --> 00:05:35,570

of aerospace technology research such as

118

00:05:40,210 --> 00:05:37,850

blue highway pavement prevent

119

00:05:42,160 --> 00:05:40,220

hydroplaning and the fetal heart rate

120

00:05:45,210 --> 00:05:42,170

monitor to ensure quality crewneck

121

00:05:48,880 --> 00:05:45,220

health care here at NASA Langley

122

00:05:51,040 --> 00:05:48,890

researchers focus on tomorrow today we

123

00:05:52,810 --> 00:05:51,050

are dedicated to long-term basic

124

00:05:56,080 --> 00:05:52,820

research as well as the high-risk

125

00:05:58,210 --> 00:05:56,090

problem solving in the increasingly

126

00:05:59,920 --> 00:05:58,220

competitive world of the future it is

127

00:06:01,650 --> 00:05:59,930

clear that maintaining America's

128

00:06:04,180 --> 00:06:01,660

preeminence in science and technology

129

00:06:06,420 --> 00:06:04,190

will once again test our nation's

130

00:06:09,520 --> 00:06:06,430

technical vision resolution and

131

00:06:11,740 --> 00:06:09,530

institutional strengths we at NASA

132

00:06:14,380 --> 00:06:11,750

Langley must stimulate advances across a

133

00:06:16,510 --> 00:06:14,390

broad spectrum of aerospace sciences and

134

00:06:19,150 --> 00:06:16,520

technologies critical to America's

135

00:06:21,160 --> 00:06:19,160

future NASA Langley will aid private

136

00:06:23,290 --> 00:06:21,170

enterprise and strengthen American

137

00:06:25,420 --> 00:06:23,300

educational institutions by developing