

A black and white photograph of President John F. Kennedy speaking at a podium. He is wearing a dark suit and tie, and is looking slightly to his right. The podium features the Presidential Seal. To the left of the podium is a large American flag. In the background, a large crowd of people is visible, many wearing hats. The text is overlaid on the center of the image.

President Kennedy
September 12, 1962
Houston, TX
Address at Rice University
on the Nation's Space Effort

1
00:00:05,539 --> 00:00:02,360
we don't always think about them but we

2
00:00:07,579 --> 00:00:05,549
depend on weather data every day in the

3
00:00:09,350 --> 00:00:07,589
morning we make a decision on what to

4
00:00:12,320 --> 00:00:09,360
wear or whether we should take an

5
00:00:14,539 --> 00:00:12,330
umbrella or maybe even decide not dry

6
00:00:18,200 --> 00:00:14,549
because there is a warning for icy

7
00:00:24,269 --> 00:00:22,109
on a bigger scale weather data helps

8
00:00:27,510 --> 00:00:24,279
improve the efficiency in many sectors

9
00:00:30,269 --> 00:00:27,520
of the US economy saving industry and

10
00:00:33,900 --> 00:00:30,279
the general public at least five billion

11
00:00:36,780 --> 00:00:33,910
dollars per year the National Oceanic

12
00:00:39,060 --> 00:00:36,790
and Atmospheric Administration known as

13
00:00:41,040 --> 00:00:39,070

noah owns and operates weather

14

00:00:44,899 --> 00:00:41,050

satellites built and launched by NASA

15

00:00:48,479 --> 00:00:44,909

that helped save lives and resources

16

00:00:50,490 --> 00:00:48,489

since nineteen sixty NOAA has operated a

17

00:00:53,219 --> 00:00:50,500

fleet of polar orbiting environmental

18

00:00:55,439 --> 00:00:53,229

satellites called pose complemented by

19

00:00:57,689 --> 00:00:55,449

the higher altitude geostationary

20

00:01:01,289 --> 00:00:57,699

operational environmental satellite snow

21

00:01:03,539 --> 00:01:01,299

Nazz goes together these two satellite

22

00:01:05,399 --> 00:01:03,549

constellations are advancing mankind's

23

00:01:08,219 --> 00:01:05,409

ability to see the whole earth

24

00:01:12,420 --> 00:01:08,229

continuously and predict severe weather

25

00:01:16,440 --> 00:01:12,430

events with greater accuracy in 2009

26
00:01:18,929 --> 00:01:16,450
NASA will launch noah and prime operated

27
00:01:21,060 --> 00:01:18,939
by NOAA and prime will be the last in

28
00:01:26,370 --> 00:01:21,070
the television infrared observation

29
00:01:28,859 --> 00:01:26,380
satellite series or Tyros noah m prime

30
00:01:30,929 --> 00:01:28,869
is going to give us data the same as

31
00:01:33,419 --> 00:01:30,939
we've been getting it in the past but

32
00:01:37,230 --> 00:01:33,429
its main role is continuity of service

33
00:01:38,819 --> 00:01:37,240
and to restore some of the degraded

34
00:01:41,249 --> 00:01:38,829
instruments that we've had so we're

35
00:01:42,809 --> 00:01:41,259
looking forward to a fresh satellite

36
00:01:46,499 --> 00:01:42,819
that has a hundred percent of everything

37
00:01:49,440 --> 00:01:46,509
working and also help us continue our

38
00:01:51,660 --> 00:01:49,450

services until the next generation of

39

00:01:53,639 --> 00:01:51,670

emp satellites that are ready so we

40

00:01:56,700 --> 00:01:53,649

need to satellite to last for at least

41

00:01:58,800 --> 00:01:56,710

three years continuously delivered

42

00:02:00,899 --> 00:01:58,810

satellite weather data provides the

43

00:02:04,050 --> 00:02:00,909

building blocks for far-reaching climate

44

00:02:06,149 --> 00:02:04,060

and research programs data provided by

45

00:02:08,790 --> 00:02:06,159

Noah's weather satellites has many

46

00:02:11,699 --> 00:02:08,800

government commercial and humanitarian

47

00:02:13,559 --> 00:02:11,709

applications to name a few search and

48

00:02:15,960 --> 00:02:13,569

rescue instruments carried on Noah's

49

00:02:17,039 --> 00:02:15,970

weather satellites help save lives every

50

00:02:19,390 --> 00:02:17,049

day

51
00:02:21,369 --> 00:02:19,400
scientists can monitor the vegetation

52
00:02:24,399 --> 00:02:21,379
index to know whether crops are in

53
00:02:26,170 --> 00:02:24,409
stress and need water farmers rely on

54
00:02:28,020 --> 00:02:26,180
the weather forecast to know when they

55
00:02:30,610 --> 00:02:28,030
should plant and harvest the crops

56
00:02:33,459 --> 00:02:30,620
fishermen use weather data to decide

57
00:02:36,270 --> 00:02:33,469
when and where to fish tracking

58
00:02:39,039 --> 00:02:36,280
migratory animals endangered species

59
00:02:41,800 --> 00:02:39,049
volcanic eruptions forest fires and

60
00:02:44,830 --> 00:02:41,810
icebergs are also a function of Noah's

61
00:02:47,020 --> 00:02:44,840
weather satellites ships take advantage

62
00:02:49,569 --> 00:02:47,030
of information provided about ocean

63
00:02:52,780 --> 00:02:49,579

currents streams and even icebergs to

64

00:02:55,030 --> 00:02:52,790

save fuel and charts safe routes weather

65

00:02:57,520 --> 00:02:55,040

satellites provide critical space

66

00:02:59,920 --> 00:02:57,530

environment data that warns astronauts

67

00:03:02,619 --> 00:02:59,930

about high solar activity so they can

68

00:03:05,020 --> 00:03:02,629

seek shelter in their space station well

69

00:03:07,390 --> 00:03:05,030

these satellites that NOAA has NASA

70

00:03:10,360 --> 00:03:07,400

launched they don't just benefit the

71

00:03:12,399 --> 00:03:10,370

u.s. they benefit everyone in these

72

00:03:16,179 --> 00:03:12,409

satellites over the last 50 years since

73

00:03:18,879 --> 00:03:16,189

nineteen sixty have increased the

74

00:03:21,670 --> 00:03:18,889

abilities on all phones and everyone has

75

00:03:26,650 --> 00:03:21,680

benefited just in so many areas the

76

00:03:34,430 --> 00:03:31,100

sep tember nine 1900 a devastating

77

00:03:38,930 --> 00:03:34,440

category four storm hits Galveston Texas

78

00:03:40,160 --> 00:03:38,940

without a warning Galveston has been the

79

00:03:43,070 --> 00:03:40,170

scene of one of the greatest

80

00:03:46,910 --> 00:03:43,080

catastrophes in the world's history the

81

00:03:48,800 --> 00:03:46,920

situation looked desperate back then

82

00:03:52,280 --> 00:03:48,810

weather satellites were still an

83

00:03:53,840 --> 00:03:52,290

impossible dream the lack of timely and

84

00:03:59,740 --> 00:03:53,850

accurate warning meant the difference

85

00:04:07,040 --> 00:04:03,650

within these last 19 months at least 45

86

00:04:08,900 --> 00:04:07,050

satellites have circled the earth some

87

00:04:12,560 --> 00:04:08,910

40 of them were made in the United

88

00:04:15,020 --> 00:04:12,570

States of America transit satellites are

89

00:04:18,289 --> 00:04:15,030

helping our ships at sea who steer a

90

00:04:20,570 --> 00:04:18,299

safer course tyros satellites have given

91

00:04:23,600 --> 00:04:20,580

us unprecedented warnings of hurricanes

92

00:04:27,710 --> 00:04:23,610

and storms and will do the same for four

93

00:04:30,200 --> 00:04:27,720

of five and I scourge the first weather

94

00:04:32,690 --> 00:04:30,210

satellite Tyros one was launched on

95

00:04:35,360 --> 00:04:32,700

April first nineteen sixty from Cape

96

00:04:37,280 --> 00:04:35,370

Canaveral Florida the satellite weighed

97

00:04:39,980 --> 00:04:37,290

a hundred and twenty two kilograms and

98

00:04:43,400 --> 00:04:39,990

carried two TV cameras and two video

99

00:04:45,650 --> 00:04:43,410

recorders the first picture was of

100

00:04:48,080 --> 00:04:45,660

clouds was pretty rough and was actually

101
00:04:51,020 --> 00:04:48,090
classified and rushed down to the White

102
00:04:53,690 --> 00:04:51,030
House with the advance of science and

103
00:04:56,240 --> 00:04:53,700
technology we can now be fairly certain

104
00:05:00,200 --> 00:04:56,250
that a galveston storm will never be a

105
00:05:03,020 --> 00:05:00,210
surprise again the microwave instruments

106
00:05:04,790 --> 00:05:03,030
onboard Noah and prime are so sensitive

107
00:05:07,610 --> 00:05:04,800
that they can see Earth's surface

108
00:05:09,560 --> 00:05:07,620
through the clouds as it orbits at eight

109
00:05:12,770 --> 00:05:09,570
hundred sixty kilometers above Earth's

110
00:05:15,290 --> 00:05:12,780
atmosphere Noah and Prime sends near

111
00:05:17,570 --> 00:05:15,300
real-time data for evolving severe

112
00:05:20,510 --> 00:05:17,580
weather formations this up-to-the-minute

113
00:05:22,520 --> 00:05:20,520

data is crucial to many remote parts of

114

00:05:24,890 --> 00:05:22,530

the world where satellite data is the

115

00:05:28,430 --> 00:05:24,900

only source of information on developing

116

00:05:30,620 --> 00:05:28,440

weather patterns being a polar orbiting

117

00:05:33,890 --> 00:05:30,630

satellite and orbiting the Earth once

118

00:05:36,320 --> 00:05:33,900

every 102 minutes a huge advantage of

119

00:05:38,030 --> 00:05:36,330

Noah and prime is that it sees what's

120

00:05:41,390 --> 00:05:38,040

developing on the other side of Earth

121

00:05:45,020 --> 00:05:41,400

thus giving an advanced warning prior to

122

00:05:47,360 --> 00:05:45,030

severe weather reaching land we need to

123

00:05:49,159 --> 00:05:47,370

let people know right away that there's

124

00:05:52,159 --> 00:05:49,169

a solar flare coming there's this

125

00:05:54,770 --> 00:05:52,169

hurricane there's this tornado line of

126

00:05:57,020 --> 00:05:54,780

outbreak heading your way or there's

127

00:05:59,300 --> 00:05:57,030

some winter squaws or some lake-effect

128

00:06:01,310 --> 00:05:59,310

snows coming off two great legs these

129

00:06:03,650 --> 00:06:01,320

are all things that we need to let

130

00:06:05,569 --> 00:06:03,660

people know you know today or as soon as

131

00:06:09,689 --> 00:06:05,579

possible that that's going to happen

132

00:06:11,819 --> 00:06:09,699

what's in the future a try agency effort

133

00:06:13,949 --> 00:06:11,829

between the National Oceanic and

134

00:06:16,739 --> 00:06:13,959

Atmospheric Administration the

135

00:06:18,329 --> 00:06:16,749

Department of Defense and NASA will

136

00:06:20,489 --> 00:06:18,339

result in the launch of a

137

00:06:22,679 --> 00:06:20,499

next-generation highly advanced

138

00:06:25,439 --> 00:06:22,689

environmental watch system called and

139

00:06:28,049 --> 00:06:25,449

pose which will unite the present

140

00:06:31,439 --> 00:06:28,059

civilian and military polar orbiting