

A satellite view of Earth from space, showing a curved horizon with blue oceans, white clouds, and brownish-green landmasses. The text "NOAA-N Prime" is overlaid in white on the left side of the image.

NOAA-N Prime

1
00:00:05,269 --> 00:00:02,389
we don't always think about that but we

2
00:00:07,349 --> 00:00:05,279
depend on weather data every day

3
00:00:09,190 --> 00:00:07,359
in the morning we make a decision on

4
00:00:12,150 --> 00:00:09,200
what to wear or whether we should take

5
00:00:14,549 --> 00:00:12,160
an umbrella or maybe even decide not to

6
00:00:19,590 --> 00:00:14,559
drive because there is a warning for icy

7
00:00:24,550 --> 00:00:22,230
on a bigger scale weather data helps

8
00:00:27,670 --> 00:00:24,560
improve the efficiency in many sectors

9
00:00:30,390 --> 00:00:27,680
of the us economy saving industry and

10
00:00:33,030 --> 00:00:30,400
the general public at least five billion

11
00:00:35,190 --> 00:00:33,040
dollars per year

12
00:00:37,750 --> 00:00:35,200
the national oceanic and atmospheric

13
00:00:39,670 --> 00:00:37,760

administration known as noaa

14

00:00:41,750 --> 00:00:39,680

owns and operates weather satellites

15

00:00:45,590 --> 00:00:41,760

built and launched by nasa that help

16

00:00:49,029 --> 00:00:45,600

save lives and resources

17

00:00:51,110 --> 00:00:49,039

since 1960 noaa has operated a fleet of

18

00:00:52,470 --> 00:00:51,120

polar orbiting environmental satellites

19

00:00:54,510 --> 00:00:52,480

called pose

20

00:00:56,790 --> 00:00:54,520

complemented by the higher altitude

21

00:00:59,430 --> 00:00:56,800

geostationary operational environmental

22

00:01:01,270 --> 00:00:59,440

satellites known as goes

23

00:01:03,430 --> 00:01:01,280

together these two satellite

24

00:01:05,509 --> 00:01:03,440

constellations are advancing mankind's

25

00:01:08,310 --> 00:01:05,519

ability to see the whole earth

26
00:01:11,350 --> 00:01:08,320
continuously and predict severe weather

27
00:01:15,830 --> 00:01:11,360
events with greater accuracy

28
00:01:18,310 --> 00:01:15,840
in 2009 nasa will launch noaa and prime

29
00:01:20,390 --> 00:01:18,320
operated by noaa and prime will be the

30
00:01:25,270 --> 00:01:20,400
last in the television infrared

31
00:01:30,310 --> 00:01:28,070
noaa m prime is going to give us data

32
00:01:32,950 --> 00:01:30,320
the same as we've been getting it in the

33
00:01:36,550 --> 00:01:32,960
past but its main role is continuity of

34
00:01:38,550 --> 00:01:36,560
service and to restore some of the uh

35
00:01:40,710 --> 00:01:38,560
degraded instruments that we've had so

36
00:01:42,710 --> 00:01:40,720
we're looking forward to a fresh

37
00:01:45,910 --> 00:01:42,720
satellite that has a hundred percent of

38
00:01:48,630 --> 00:01:45,920

everything working and also help uh else

39

00:01:50,870 --> 00:01:48,640

continue our services until the next

40

00:01:52,870 --> 00:01:50,880

generation of imposed satellites that

41

00:01:55,350 --> 00:01:52,880

are ready so we need this satellite to

42

00:01:57,510 --> 00:01:55,360

last for at least three years

43

00:01:59,749 --> 00:01:57,520

continuously delivered satellite weather

44

00:02:01,670 --> 00:01:59,759

data provides the building blocks for

45

00:02:02,950 --> 00:02:01,680

far-reaching climate and research

46

00:02:04,709 --> 00:02:02,960

programs

47

00:02:06,789 --> 00:02:04,719

data provided by noaa's weather

48

00:02:09,990 --> 00:02:06,799

satellites has many government

49

00:02:12,150 --> 00:02:10,000

commercial and humanitarian applications

50

00:02:13,830 --> 00:02:12,160

to name a few search and rescue

51
00:02:17,270 --> 00:02:13,840
instruments carried on noaa's weather

52
00:02:19,430 --> 00:02:17,280
satellites help save lives every day

53
00:02:21,350 --> 00:02:19,440
scientists can monitor the vegetation

54
00:02:23,350 --> 00:02:21,360
index to know whether crops are in

55
00:02:25,589 --> 00:02:23,360
stress and need water

56
00:02:27,270 --> 00:02:25,599
farmers rely on the weather forecast to

57
00:02:28,470 --> 00:02:27,280
know when they should plant and harvest

58
00:02:30,630 --> 00:02:28,480
the crops

59
00:02:32,949 --> 00:02:30,640
fishermen use weather data to decide

60
00:02:35,509 --> 00:02:32,959
when and where to fish

61
00:02:36,790 --> 00:02:35,519
tracking migratory animals endangered

62
00:02:39,190 --> 00:02:36,800
species

63
00:02:41,750 --> 00:02:39,200

volcanic eruptions forest fires and

64

00:02:43,430 --> 00:02:41,760

icebergs are also a function of noaa's

65

00:02:45,589 --> 00:02:43,440

weather satellites

66

00:02:48,070 --> 00:02:45,599

ships take advantage of information

67

00:02:50,710 --> 00:02:48,080

provided about ocean currents streams

68

00:02:52,470 --> 00:02:50,720

and even icebergs to save fuel and

69

00:02:54,710 --> 00:02:52,480

charge safe routes

70

00:02:56,949 --> 00:02:54,720

weather satellites provide critical

71

00:02:59,509 --> 00:02:56,959

space environment data that warns

72

00:03:01,350 --> 00:02:59,519

astronauts about high solar activity so

73

00:03:02,309 --> 00:03:01,360

they can seek shelter in their space

74

00:03:05,190 --> 00:03:02,319

station

75

00:03:06,229 --> 00:03:05,200

well these satellites that noaa has nasa

76

00:03:07,910 --> 00:03:06,239

launch

77

00:03:10,309 --> 00:03:07,920

they don't just benefit the u.s they

78

00:03:12,390 --> 00:03:10,319

benefit everyone in the world these

79

00:03:14,149 --> 00:03:12,400

satellites over the last 50 years since

80

00:03:14,949 --> 00:03:14,159

1960

81

00:03:15,990 --> 00:03:14,959

have

82

00:03:18,710 --> 00:03:16,000

increased

83

00:03:21,670 --> 00:03:18,720

the abilities on all fronts and everyone

84

00:03:27,350 --> 00:03:21,680

has benefited just in so many areas the

85

00:03:33,589 --> 00:03:29,990

september 9 1900

86

00:03:37,670 --> 00:03:33,599

a devastating category 4 storm hits

87

00:03:39,750 --> 00:03:37,680

galveston texas without a warning

88

00:03:41,990 --> 00:03:39,760

galveston has been the scene of one of

89

00:03:46,390 --> 00:03:42,000

the greatest catastrophes in the world's

90

00:03:48,710 --> 00:03:46,400

history the situation looked desperate

91

00:03:50,710 --> 00:03:48,720

back then weather satellites were still

92

00:03:53,190 --> 00:03:50,720

an impossible dream

93

00:03:55,750 --> 00:03:53,200

the lack of timely and accurate warning

94

00:04:00,309 --> 00:03:55,760

meant the difference between survival

95

00:04:05,750 --> 00:04:02,789

within these last 19 months

96

00:04:06,789 --> 00:04:05,760

at least 45 satellites have circled the

97

00:04:08,869 --> 00:04:06,799

earth

98

00:04:11,270 --> 00:04:08,879

some 40 of them were made in the united

99

00:04:13,350 --> 00:04:11,280

states of america

100

00:04:14,390 --> 00:04:13,360

transit satellites are helping our ships

101
00:04:16,710 --> 00:04:14,400
at sea

102
00:04:18,469 --> 00:04:16,720
to steer a safer course

103
00:04:21,189 --> 00:04:18,479
entire satellites have given us

104
00:04:22,230 --> 00:04:21,199
unprecedented warnings of hurricanes and

105
00:04:24,390 --> 00:04:22,240
storms

106
00:04:26,950 --> 00:04:24,400
and will do the same for forest fires

107
00:04:29,670 --> 00:04:26,960
and icebergs

108
00:04:32,629 --> 00:04:29,680
the first weather satellite tyros1 was

109
00:04:34,390 --> 00:04:32,639
launched on april 1st 1960 from cape

110
00:04:37,590 --> 00:04:34,400
canaveral florida

111
00:04:40,430 --> 00:04:37,600
the satellite weighed 122 kilograms and

112
00:04:43,510 --> 00:04:40,440
carried two tv cameras and two video

113
00:04:45,430 --> 00:04:43,520

recorders the first picture was of

114

00:04:47,749 --> 00:04:45,440

clouds was pretty rough and it was

115

00:04:49,350 --> 00:04:47,759

actually classified and rushed down to

116

00:04:51,110 --> 00:04:49,360

the white house

117

00:04:53,749 --> 00:04:51,120

with the advance of science and

118

00:04:56,230 --> 00:04:53,759

technology we can now be fairly certain

119

00:04:58,790 --> 00:04:56,240

that a galveston storm will never be a

120

00:05:01,110 --> 00:04:58,800

surprise again

121

00:05:03,909 --> 00:05:01,120

the microwave instruments on board noaa

122

00:05:06,390 --> 00:05:03,919

n prime are so sensitive that they can

123

00:05:09,270 --> 00:05:06,400

see earth's surface through the clouds

124

00:05:10,870 --> 00:05:09,280

as it orbits at 860 kilometers above

125

00:05:14,070 --> 00:05:10,880

earth's atmosphere

126
00:05:16,710 --> 00:05:14,080
noaa n prime sends near real-time data

127
00:05:19,350 --> 00:05:16,720
for evolving severe weather formations

128
00:05:21,350 --> 00:05:19,360
this up to the minute data is crucial to

129
00:05:23,350 --> 00:05:21,360
many remote parts of the world where

130
00:05:25,189 --> 00:05:23,360
satellite data is the only source of

131
00:05:27,029 --> 00:05:25,199
information on developing weather

132
00:05:29,350 --> 00:05:27,039
patterns

133
00:05:31,749 --> 00:05:29,360
being a polar orbiting satellite and

134
00:05:34,469 --> 00:05:31,759
orbiting the earth once every 102

135
00:05:36,870 --> 00:05:34,479
minutes a huge advantage of noaa and

136
00:05:39,510 --> 00:05:36,880
prime is that it sees what's developing

137
00:05:41,749 --> 00:05:39,520
on the other side of earth thus giving

138
00:05:44,390 --> 00:05:41,759

an advanced warning prior to severe

139

00:05:46,870 --> 00:05:44,400

weather reaching land

140

00:05:48,710 --> 00:05:46,880

we need to let people know right away

141

00:05:50,629 --> 00:05:48,720

that there's a solar flare coming

142

00:05:53,510 --> 00:05:50,639

there's this hurricane there's this

143

00:05:56,230 --> 00:05:53,520

tornado line of outbreak heading your

144

00:05:58,469 --> 00:05:56,240

way or there's some winter squalls or

145

00:06:00,790 --> 00:05:58,479

some lake effect snows coming off the

146

00:06:03,029 --> 00:06:00,800

great lakes these are all things that we

147

00:06:04,710 --> 00:06:03,039

need to let people know you know today

148

00:06:07,990 --> 00:06:04,720

or as soon as possible that that's going

149

00:06:10,950 --> 00:06:08,000

to happen what's in the future

150

00:06:13,749 --> 00:06:10,960

a tri-agency effort between the national

151

00:06:16,469 --> 00:06:13,759

oceanic and atmospheric administration

152

00:06:18,710 --> 00:06:16,479

the department of defense and nasa

153

00:06:21,189 --> 00:06:18,720

will result in the launch of a next

154

00:06:24,309 --> 00:06:21,199

generation highly advanced environmental

155

00:06:27,189 --> 00:06:24,319

watch system called enpose which will

156

00:06:29,590 --> 00:06:27,199

unite the present civilian and military

157

00:06:32,790 --> 00:06:29,600

polar orbiting programs into one