



SPACESTATION
LIVE

1
00:00:11,030 --> 00:00:09,030
crew earth observations have long been

2
00:00:13,270 --> 00:00:11,040
the way the astronauts get to see our

3
00:00:15,110 --> 00:00:13,280
planet and we've benefited from the

4
00:00:16,470 --> 00:00:15,120
photographs they've been able to share

5
00:00:18,470 --> 00:00:16,480
with us but taking a photo while

6
00:00:21,189 --> 00:00:18,480
traveling 17

7
00:00:23,429 --> 00:00:21,199
500 miles an hour can be a little tricky

8
00:00:25,429 --> 00:00:23,439
nasa commentator lori meigs is at the

9
00:00:27,509 --> 00:00:25,439
payload operations integration center in

10
00:00:29,750 --> 00:00:27,519
huntsville alabama to show us one of the

11
00:00:31,830 --> 00:00:29,760
tools that helps astronauts take those

12
00:00:36,870 --> 00:00:31,840
photos allowing students scientists and

13
00:00:39,990 --> 00:00:38,470

earth day is approaching it's a time

14

00:00:41,750 --> 00:00:40,000

when many of us take the day to

15

00:00:43,910 --> 00:00:41,760

appreciate our beautiful planet and

16

00:00:45,510 --> 00:00:43,920

learn how to protect it well astronauts

17

00:00:47,670 --> 00:00:45,520

on the space station get to take in that

18

00:00:50,150 --> 00:00:47,680

beauty every day from the unique vantage

19

00:00:52,229 --> 00:00:50,160

point of space and lucky for us they

20

00:00:54,150 --> 00:00:52,239

share that through photos i spoke with

21

00:00:56,069 --> 00:00:54,160

dan barstow the principal investigator

22

00:00:57,990 --> 00:00:56,079

for windows on earth which is a tool

23

00:00:59,990 --> 00:00:58,000

that gives them a little help in

24

00:01:02,709 --> 00:01:00,000

snapping the best shots

25

00:01:04,869 --> 00:01:02,719

windows on earth helps the astronauts do

26
00:01:07,109 --> 00:01:04,879
earth observation and photography the

27
00:01:08,310 --> 00:01:07,119
astronauts take amazing pictures of

28
00:01:09,350 --> 00:01:08,320
earth i don't know if you've ever seen

29
00:01:12,550 --> 00:01:09,360
any of them

30
00:01:16,710 --> 00:01:12,560
but they are just gorgeous they show

31
00:01:19,830 --> 00:01:16,720
the sahara the Nile river the

32
00:01:22,469 --> 00:01:19,840
Beijing at night the aurora they're just

33
00:01:24,310 --> 00:01:22,479
so compelling and engaging

34
00:01:26,789 --> 00:01:24,320
our software helps them identify the

35
00:01:29,190 --> 00:01:26,799
targets to photograph and disseminates

36
00:01:31,270 --> 00:01:29,200
them to the public the astronauts enjoy

37
00:01:33,190 --> 00:01:31,280
taking pictures you can just imagine

38
00:01:34,789 --> 00:01:33,200

them looking out the window

39

00:01:36,469 --> 00:01:34,799

seeing the day and night and all the

40

00:01:37,830 --> 00:01:36,479

different things that they see

41

00:01:39,590 --> 00:01:37,840

some of the pictures they take are just

42

00:01:41,590 --> 00:01:39,600

because it's fun they like to see it and

43

00:01:43,510 --> 00:01:41,600

they you know great pictures but when

44

00:01:45,270 --> 00:01:43,520

they have scientific targets it's often

45

00:01:47,590 --> 00:01:45,280

hard to identify

46

00:01:50,550 --> 00:01:47,600

exactly the object that they're looking

47

00:01:53,030 --> 00:01:50,560

for so our software helps them by

48

00:01:55,510 --> 00:01:53,040

simulating a view out the window so they

49

00:01:58,389 --> 00:01:55,520

know exactly what they're looking at and

50

00:02:00,069 --> 00:01:58,399

can there it is click take the picture

51
00:02:01,830 --> 00:02:00,079
so for the astronauts perspective they

52
00:02:03,350 --> 00:02:01,840
actually helped we work directly with

53
00:02:05,749 --> 00:02:03,360
the astronauts in designing this

54
00:02:09,510 --> 00:02:05,759
software so it's really a tool more for

55
00:02:11,830 --> 00:02:09,520
them than it is for us so they certainly

56
00:02:14,390 --> 00:02:11,840
appreciate getting this kind of extra

57
00:02:16,070 --> 00:02:14,400
visual yeah because i would think going

58
00:02:18,229 --> 00:02:16,080
17 000 miles an hour not a lot of time

59
00:02:19,830 --> 00:02:18,239
to really think and look and

60
00:02:22,869 --> 00:02:19,840
you've really got to be quick with it

61
00:02:25,910 --> 00:02:22,879
yeah just imagine you're flying over

62
00:02:26,949 --> 00:02:25,920
you want to get boston you have about 30

63
00:02:29,350 --> 00:02:26,959

seconds

64

00:02:31,589 --> 00:02:29,360

for the that boston goes by in the

65

00:02:33,110 --> 00:02:31,599

window that you have to

66

00:02:35,670 --> 00:02:33,120

identify it

67

00:02:37,830 --> 00:02:35,680

frame it compose it take the picture and

68

00:02:40,309 --> 00:02:37,840

then get ready for the next one it takes

69

00:02:42,229 --> 00:02:40,319

a lot of fast response so talk about

70

00:02:43,430 --> 00:02:42,239

some of the fascinating photographs

71

00:02:44,710 --> 00:02:43,440

you've gotten back because of that

72

00:02:47,750 --> 00:02:44,720

software

73

00:02:49,110 --> 00:02:47,760

anything that sticks out yeah we

74

00:02:51,830 --> 00:02:49,120

every day

75

00:02:54,150 --> 00:02:51,840

in collaboration with nasa they download

76
00:02:56,150 --> 00:02:54,160
the images then we process them and post

77
00:02:57,830 --> 00:02:56,160
them on our public website which is the

78
00:03:00,630 --> 00:02:57,840
others part of this project called

79
00:03:04,309 --> 00:03:00,640
windowsonearth.org

80
00:03:07,350 --> 00:03:04,319
free public website we have over 500 000

81
00:03:08,869 --> 00:03:07,360
images in there wow so every day we're

82
00:03:10,630 --> 00:03:08,879
processing and i'm looking at these

83
00:03:13,190 --> 00:03:10,640
pictures it's just it comes from the

84
00:03:16,229 --> 00:03:13,200
heart they are so beautiful

85
00:03:19,430 --> 00:03:16,239
the auroras are always amazing to see on

86
00:03:21,910 --> 00:03:19,440
the horizon the green and the shimmering

87
00:03:23,350 --> 00:03:21,920
i love seeing the bahamas i mean some of

88
00:03:25,750 --> 00:03:23,360

the things that the astronauts really

89

00:03:28,630 --> 00:03:25,760

enjoy taking a lot are the the blues and

90

00:03:31,030 --> 00:03:28,640

the aquas of the bahama islands or

91

00:03:32,949 --> 00:03:31,040

the flying over cairo and you see the

92

00:03:36,070 --> 00:03:32,959

nile river just this

93

00:03:37,750 --> 00:03:36,080

verdant green wavy line in the middle of

94

00:03:39,430 --> 00:03:37,760

the barren desert

95

00:03:41,190 --> 00:03:39,440

so they go to your website you can

96

00:03:42,869 --> 00:03:41,200

search it search for a particular place

97

00:03:45,350 --> 00:03:42,879

you're looking for yes you can search

98

00:03:47,990 --> 00:03:45,360

for any site you get to see the all the

99

00:03:49,750 --> 00:03:48,000

photographs taken any day they're posted

100

00:03:52,229 --> 00:03:49,760

you can look through them all you can

101
00:03:55,509 --> 00:03:52,239
pick favorites you can look for types of

102
00:03:57,270 --> 00:03:55,519
features like a volcano or a hurricane

103
00:03:58,869 --> 00:03:57,280
or locations

104
00:04:02,630 --> 00:03:58,879
why is it so important

105
00:04:05,589 --> 00:04:02,640
to get these photographs from space

106
00:04:06,550 --> 00:04:05,599
we live on a wonderful planet planet

107
00:04:09,110 --> 00:04:06,560
earth

108
00:04:10,869 --> 00:04:09,120
is this oasis in space

109
00:04:14,550 --> 00:04:10,879
the astronauts

110
00:04:16,390 --> 00:04:14,560
understand our planet as a whole planet

111
00:04:18,710 --> 00:04:16,400
there's an integrated system all the

112
00:04:20,390 --> 00:04:18,720
pieces working together because they

113
00:04:22,469 --> 00:04:20,400

they're able to be away from it take

114

00:04:24,629 --> 00:04:22,479

their 92 minutes as they're going around

115

00:04:25,909 --> 00:04:24,639

the earth seeing the earth from this

116

00:04:28,469 --> 00:04:25,919

sort of global

117

00:04:30,950 --> 00:04:28,479

perspective the photographs

118

00:04:31,830 --> 00:04:30,960

enable the public to experience the same

119

00:04:33,510 --> 00:04:31,840

thing

120

00:04:35,670 --> 00:04:33,520

that kind of

121

00:04:38,950 --> 00:04:35,680

stepping back and seeing things more