



DECEMBER 2015

1

00:00:00,770 --> 00:00:04,810

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2

00:00:05,000 --> 00:00:13,160

On July 6, 2015, we released this spectacular image of Earth taken by NASA's EPIC camera.

3

00:00:14,010 --> 00:00:19,800

Now, we assembled more than 3,000 images captured by EPIC into a time-lapse sequence

4

00:00:19,800 --> 00:00:22,630

that shows a year in the life of our planet.

5

00:00:26,190 --> 00:00:32,500

EPIC is an Earth science instrument aboard the DSCOVR satellite, which launched in February 2015.

6

00:00:33,990 --> 00:00:37,200

The spacecraft always remains between the sun and the Earth

7

00:00:37,420 --> 00:00:44,100

approximately 1 million miles away, at a special gravitational balance point known as Lagrange 1.

8

00:00:44,900 --> 00:00:50,660

From this view, EPIC sees the sunrise in the west and the sunset in the east

9

00:00:50,700 --> 00:00:52,200

at least 13 times a day.

10

00:00:54,780 --> 00:01:00,660

The haze seen around the edges is due to scattering of light by molecules in the atmosphere.

11

00:01:00,800 --> 00:01:06,850

Scattering is also what makes the sky appear blue during the day and red at sunset.

12

00:01:08,750 --> 00:01:15,990

The colors shown are our best estimate of what a human sitting at the location of EPIC would see.

13

00:01:16,000 --> 00:01:20,770

EPIC takes at least one set of images about every two hours.

14

00:01:20,850 --> 00:01:25,130

The camera records each set in 10 different wavelengths.

15

00:01:25,200 --> 00:01:31,800

At least three separate wavelengths--red, green, and blue--are combined to produce this color view.

16

00:01:34,550 --> 00:01:39,920

In March, the moon passed between the Earth and the sun causing a total solar eclipse.

17

00:01:40,500 --> 00:01:45,500

During the eclipse, the moon cast its shadow over a portion of the planet.

18

00:01:46,000 --> 00:01:52,240

If we slow the video down, we can see the moon's shadow make an appearance right about now.

19

00:01:55,250 --> 00:02:02,430

Although the view from EPIC is only once every two hours, we're able to track features like the motion of clouds.

20

00:02:02,500 --> 00:02:05,600

Around two-thirds of the Earth is covered by clouds.

21

00:02:05,850 --> 00:02:09,860

Clouds reflect light from the sun, helping to keep the planet cool.

22

00:02:10,000 --> 00:02:14,710

They also trap heat rising from the surface, keeping the planet warm.

23

00:02:15,000 --> 00:02:22,770

Changes in cloud cover affect the heat balance and how warm the Earth becomes, which is one of the reasons

24

00:02:24,000 --> 00:02:28,400

The hourly images of the entire sunlit side of the Earth provided by EPIC