



EARTHRISE

A CONVERSATION WITH APOLLO 8
ASTRONAUT BILL ANDERS



1

00:00:00,934 --> 00:00:04,637

I am Kate Calvin, NASA's
chief scientist and senior climate adviser,

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00:00:04,637 --> 00:00:08,575

and I'm sitting down with Bill Anders,
who took the famous Earthrise photo.

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00:00:08,575 --> 00:00:09,809

[music swells]

4

00:00:09,809 --> 00:00:12,145

[Audio from the Apollo 8 mission]:
Oh, God, look at that picture over there.

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00:00:12,145 --> 00:00:13,446

That's the Earth comin' up.

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00:00:13,446 --> 00:00:14,898

Wow, is that pretty!

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00:00:17,851 --> 00:00:20,420

So most of us only get to see
what's right in front of us.

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00:00:20,420 --> 00:00:22,856

The sidewalk, the building, the trees.

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00:00:22,956 --> 00:00:24,958

But when you were in space,
you had this opportunity

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00:00:24,958 --> 00:00:28,695

to see the planet as a whole,
this beautiful blue planet.

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00:00:28,862 --> 00:00:30,063

What was that like?

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00:00:30,063 --> 00:00:33,633

Well, before we got to the Moon,
I was able to look back at the Earth,

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00:00:33,633 --> 00:00:37,804

and it was about the size of my fist
at arm's length.

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00:00:38,038 --> 00:00:39,873

And you really couldn't see any details.

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00:00:39,873 --> 00:00:44,644

It was kind of, uh, you couldn't see the continents even,
you know, and even the people from orbit,

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00:00:44,644 --> 00:00:50,083

you don't see many manmade
features, if any, from space.

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00:00:50,083 --> 00:00:55,855

But I thought that it it was really kind of a —
it was at Christmas time

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00:00:55,855 --> 00:00:59,426

and it was like a fragile
Christmas tree ornament.

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00:01:00,460 --> 00:01:03,663

And I thought to myself,
you know, it's too bad we don't treat it

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00:01:03,663 --> 00:01:06,132

more like a Christmas tree ornament.

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00:01:07,434 --> 00:01:09,536

And then when I was lucky enough

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00:01:09,536 --> 00:01:11,871

to take the iconic Earthrise picture,

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00:01:12,072 --> 00:01:15,942

which basically kicked off the Earth Day
and that kind of thing —

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00:01:16,443 --> 00:01:21,314

it's really too bad you know,
we're shooting missiles and rockets

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00:01:21,314 --> 00:01:26,352

and whatnot at each other on this
tiny little place we call home.

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00:01:26,352 --> 00:01:31,157

It's the only home in the universe for us humans.

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00:01:31,157 --> 00:01:35,161

And, you know, it's too bad
we don't treat it a little better.

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00:01:36,463 --> 00:01:38,765

We're approaching the 53rd Earth Day.

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00:01:38,765 --> 00:01:41,101

And as you said, Earthrise has had a tremendous impact

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00:01:41,101 --> 00:01:43,036

on people and the environmental movement.

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00:01:43,203 --> 00:01:47,240

What do you think the biggest impacts were both then
and now of the Earthrise photo?

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00:01:47,607 --> 00:01:50,343

Well, it people realize that the planet was

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00:01:50,343 --> 00:01:53,279

a fragile, delicate.

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00:01:54,180 --> 00:01:57,650
Clearly, mankind has not been kind to the planet.

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00:01:58,451 --> 00:02:00,887
But could you tell the story
of taking Earthrise?

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00:02:01,488 --> 00:02:03,790
We had ...

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00:02:03,790 --> 00:02:06,292
I think they gave me a little bit
of photography training.

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00:02:06,292 --> 00:02:09,129
I had a camera I took home, a Hasselblad,

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00:02:09,863 --> 00:02:12,665
took a few pictures, but, you know, no —

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00:02:13,199 --> 00:02:15,869
didn't even have a light
meter on our flight.

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00:02:16,302 --> 00:02:19,172
And so we were in lunar orbit

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00:02:19,172 --> 00:02:21,007
upside down and going backwards.

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00:02:21,007 --> 00:02:25,678
So for the first several revolutions,

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00:02:26,613 --> 00:02:29,449
we didn't see the Earth

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00:02:29,449 --> 00:02:31,518
and didn't really think about that.

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00:02:32,886 --> 00:02:35,421
And then we righted ourselves,

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00:02:35,522 --> 00:02:38,658
you know, heads up
and twisted the spacecraft

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00:02:38,658 --> 00:02:43,429
so it was going forward
and while Frank Borman was in the process

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00:02:43,429 --> 00:02:48,468
of doing that, suddenly
I saw the corner of my eye this color.

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00:02:48,735 --> 00:02:50,136
It was shocking.

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00:02:50,136 --> 00:02:52,472
[Audio from Apollo 8 mission] Anders: Oh,
my God. Look at that picture over there!

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00:02:52,472 --> 00:02:53,773
There's the Earth coming up.

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00:02:53,773 --> 00:02:55,742
Wow, is that pretty!

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00:02:55,742 --> 00:02:58,411
[Sound effect of a camera
click] Anders: You got a color film, Jim?

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00:02:58,411 --> 00:03:00,013
Hand me a roll of color, quick, would you?

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00:03:00,013 --> 00:03:02,348
Jim Lovell: Oh, man, that's great! Where is it?
Anders: Hurry. Quick.

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00:03:02,348 --> 00:03:04,751

[Anders continues]

So I managed to get Lovell to get me

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00:03:04,751 --> 00:03:10,156

a color magazine, put the long lens on, and started snapping away.

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00:03:10,156 --> 00:03:11,691

[Audio from Apollo 8 mission] Lovell: Got it?

Anders: Yep.

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00:03:11,691 --> 00:03:13,560

Lovell: Take several, take several of 'em!

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00:03:13,560 --> 00:03:14,260

Here, give it to me.

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00:03:14,260 --> 00:03:16,629

Anders: Wait a minute, just let me get the right setting here now, just calm down.

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00:03:16,629 --> 00:03:18,131

Calm down, Lovell!

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00:03:18,131 --> 00:03:22,268

[Sound effect of camera click]

Lovell: Well I got it right — aw, that's a beautiful shot.

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00:03:22,268 --> 00:03:23,770

Lovell: Now vary — vary the exposure a little bit.

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00:03:23,770 --> 00:03:25,772

Anders: I did. I took two of 'em here.

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00:03:25,772 --> 00:03:26,706

Lovell: You sure you got it now?

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00:03:26,706 --> 00:03:29,375

Anders: Yeah, we'll
get — well, it'll come up again I think.

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00:03:29,375 --> 00:03:32,178

Without a light meter, I really didn't
know what to set it,

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00:03:33,046 --> 00:03:38,585

so I just took the f-stop and just took a shot,

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00:03:38,585 --> 00:03:41,187

moved it, took a shot, moved it and, and

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00:03:42,522 --> 00:03:44,657

then really didn't
think that much about it.

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00:03:44,657 --> 00:03:48,661

I think had I not taken the Earthrise
picture, you know, Bill, who?

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00:03:48,661 --> 00:03:50,530

You know? [laugh]

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00:03:50,530 --> 00:03:52,165

I have it hanging on the wall of my office.

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00:03:52,265 --> 00:03:53,032

Anders: Is that right?

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00:03:53,032 --> 00:03:55,068

Calvin: It's a reminder every day of why we do this:

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00:03:55,068 --> 00:03:57,670

for science, for inspiration, for innovation.

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00:03:57,937 --> 00:03:59,239

Anders: Yeah

Clavin: for home.

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00:03:59,239 --> 00:04:00,740

Anders: Yeah.

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00:04:00,740 --> 00:04:02,842

Anders: It makes people think, you know,

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00:04:02,842 --> 00:04:05,612

this fragile little ball we live on.

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00:04:05,878 --> 00:04:07,580

Calvin: Yeah. Beautiful fragile ball.

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00:04:07,580 --> 00:04:10,817

Anders: Hadn't made him think enough,
but they do think.

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00:04:13,052 --> 00:04:15,755

Earth is one of our most important
missions at NASA

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00:04:15,755 --> 00:04:18,691

and we're continuing to use that vantage
point of space

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00:04:18,758 --> 00:04:19,926

the image that you saw.

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00:04:19,926 --> 00:04:22,829

We continue to look at Earth
and see how it's changing.

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00:04:23,162 --> 00:04:27,000

What words of wisdom would you give future
scientists, astronauts

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00:04:27,000 --> 00:04:28,701
or the next generation?

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00:04:29,068 --> 00:04:31,671
Certainly viewing of space

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00:04:32,438 --> 00:04:36,476
from — of Earth, from space like Landsat,
which I fought for,

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00:04:37,610 --> 00:04:40,980
and from the space station,
looking down the Earth.

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00:04:40,980 --> 00:04:43,616
Calvin: I think Landsat is
how most people see Earth.

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00:04:43,616 --> 00:04:46,419
We get to see a lot of 50 years
worth of Landsat imagery.

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00:04:46,686 --> 00:04:51,057
And Landsat has been a, to my
knowledge, been quite a helpful program.

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00:04:51,190 --> 00:04:54,360
Yeah, it's been tremendous both in showing
the planet and how it changes

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00:04:54,360 --> 00:04:57,664
but also providing information to landowners everywhere.
Anders: Right.

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00:04:57,664 --> 00:04:58,798
So you're known for one of the

100
00:04:58,798 --> 00:05:02,302
most poetic quotes about going to the moon
and discovering Earth.

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00:05:02,568 --> 00:05:04,003

Can you tell us about that?

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00:05:04,003 --> 00:05:07,140

It's hard for me to imagine I actually said it because it's so poetic.

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00:05:07,140 --> 00:05:08,274

[Calvin laughs]

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00:05:08,274 --> 00:05:12,578

But when asked people, you know, you know, "What impressed you?"

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00:05:13,713 --> 00:05:14,647

I said, well, you know,

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00:05:14,647 --> 00:05:20,019

"We we went to the Moon to explore the Moon, and what we discovered was the Earth."

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00:05:20,019 --> 00:05:23,122

So one, I was lucky to take Earthrise,

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00:05:23,623 --> 00:05:27,393

with color film, with a long lens and make that statement.

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00:05:28,561 --> 00:05:30,596

And that's about my real

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00:05:30,596 --> 00:05:32,665

environmental claim to fame.

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00:05:32,865 --> 00:05:34,467

It's a pretty big claim to fame.

Anders: Yeah. [laugh]

112
00:05:34,467 --> 00:05:37,570
I do think often we have to leave home to appreciate it.
Anders: Yeah.

113
00:05:37,570 --> 00:05:41,341
And you had that opportunity and
I think generations are grateful

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00:05:41,341 --> 00:05:42,608
for what you've done.
Anders: Yeah, well ...

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00:05:42,608 --> 00:05:45,011
But seeing the earth from space ...

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00:05:45,011 --> 00:05:50,783
and I really wish
I could take a flight in the space station

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00:05:51,617 --> 00:05:56,682
because we were just in Earth orbit,
one and a half revolutions, so

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00:05:56,682 --> 00:05:58,958
but it is beautiful from space.

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00:06:00,026 --> 00:06:02,862
[Text on screen: In, 2018, two craters were named
in honor of the Apollo 8 mission]