
NASA
EPISODE FIVE:
THE NEW NORMAL

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I think the choice to study fire,

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generally, is a bit of an occupational hazard. It’s true

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we’re not necessarily looking at the verdant, green parts of our planet.

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We’re headed to the end of the road. We’re looking at areas

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of rainforest that have been cleared and burned. We’re capturing

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scorched landscapes.

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[intro music]

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NASA EXPLORERS

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Episode FiveThe New Normal

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FIRES

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In this series, we’ve been following the fire season

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around the world. First, in the American West,

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in the early part of summer — the start of the fire season.

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Then in high northern latitudes — Canada and Alaska.

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Then finally, in the Philippines, as the summer became

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fall. In the past, you could count on the fire

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season eventually coming to an end, but we’re now learning that that's

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not really the case anymore.

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What we’re seeing is that areas that have been flammable are becoming more flammable, pushing those syste

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into either extreme conditions, or a year-round fire

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season, where fires are literally possible at any time.

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We caught up with Dr. Doug Morton to find out the extent of the damage.

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Hotter and drier conditions, adding wind,

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you end up with fires that are moving faster, burning hotter than what we’ve seen before.

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Can we better understand, anticipate and characterize

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the changes in our planet that come from those extreme fires?

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Actually, yes, we can.

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Myself and my staff at the GIS center worked closely with colleagues at Goddard

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Space Flight Center to make this thing happen.

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This is Keith Weber, the wildfire rehabilitation expert that pioneered

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a new groundbreaking tool — the Rehabilitation Capability

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Convergence for Ecosystem Recovery includes a function that allows

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fire responders to triangulate their wildfire response.

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The tool can geolocate everything from burned areas to

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potential landslides to impacts on endangered species.

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But RECOVER really gained momentum after one fire in particular.

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I remember looking at our whiteboard that showed

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all the real high-priority things we

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need to be doing and that whiteboard was clear.

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And as I was walking out, I talked to some of my students and I said, “I think

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the wildfire year is done. We got it wrapped up.”

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Well, shouldn’t have said that. Because the next day

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one of our users in California,

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Woolsey Fire started going. It became much larger,

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I think, they thought it would, because of those big winds. And it

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you know, really grew very rapidly.

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Well, at that point, we were working with that team on a daily basis

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doing refreshes, as we call it, as the fire grew and grew and grew

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everyday until we had that thing out.

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Keith’s team is making a tangible difference by saving property, resources and lives.

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Innovations like these represent a promising future.

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As we move from today’s cutting edge

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science into tomorrow’s prediction, response and understanding,

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the work we do today opens up an opportunity to do that

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so much better going forward.

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There’s so many science topics that today are on the cutting edge of our understanding

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and what get me and my science colleagues motivated to go out into the field and keep working

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on these problems. Can we improve the way that we can

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forecast, for example, fire risk? Not just for tomorrow, but

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for ten days for now. It might help managers,

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communities prepare and respond to changing fire weather conditions.

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Like all of us, our NASA Explorers and partners

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in exploration face the daily decision to either choose apathy

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or get to work. The future is uncertain

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but we choose to meet the challenges of this new normal head on.

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FIRES

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Patrick Lynch
Series Producers
Lauren Ward
Katy Mersmann
Matt Radcliff
Social Media Producers
Katy Mersmann
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Sarah Loff

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John Caldwell
Rob Andreoli
Rafael Luis Méndez Peña
Animators
Dave Glantz
Walt Feimer

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Explorers in Order of Appearance
Doug Morton
Ambre Soja
Bruce Anderson
Kevin Schaeffer
Hal Maring
Gemma Narisma

Keith Weber