

A R I S E

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00:00:01,400 --> 00:00:07,700

ARISE is a new NASA airborne science mission. It stands for Arctic Radiation IceBridge

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00:00:07,722 --> 00:00:11,712

Sea and Ice Experiment. And it's a mission to use to an aircraft

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00:00:11,741 --> 00:00:15,731

to go to the Arctic and study the affects of global warming

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00:00:15,761 --> 00:00:19,761

in a region that's really important.

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00:00:19,790 --> 00:00:23,780

In the Arctic the temperatures are warming about twice as fast as the rest of the planet.

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00:00:23,810 --> 00:00:27,800

One of the impacts of the warming in the Arctic is the vast amounts

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00:00:27,829 --> 00:00:31,989

of sea ice are now melting every summer.

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00:00:32,019 --> 00:00:36,009

We expect that clouds are also changing in the Arctic, but we don't know

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00:00:36,038 --> 00:00:40,208

whether the clouds are going to offset or enhance the warming

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00:00:40,238 --> 00:00:44,228

effect that we expect from melting sea ice. HANSEN: One of the biggest

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00:00:44,258 --> 00:00:48,408

challenges with this new ARISE mission was pulling together

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00:00:48,438 --> 00:00:52,558

all the mission objectives, the logistics the aircraft

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00:00:52,587 --> 00:00:56,577

where we're going to deploy to in less than seven months, which is typically unheard of.

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00:00:56,607 --> 00:01:00,587

We usually have over a year to do all of that stuff, so when I was assigned

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00:01:00,616 --> 00:01:04,596

to lead the project in March, the idea was, Christy, we need everything pulled together to

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00:01:04,626 --> 00:01:08,616

support an August deployment. Can you support this, this new

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00:01:08,645 --> 00:01:12,635

mission. It didn't have a name yet, it didn't have specific science objectives,

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00:01:12,665 --> 00:01:16,825

it didn't necessarily have an aircraft. So we're using the

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00:01:16,855 --> 00:01:20,835

Wallops NASA C-130, essentially because it's a platform that

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00:01:20,864 --> 00:01:24,954

is set up to support experiments. It can take on a lot of different instrumentation

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00:01:24,984 --> 00:01:28,974

The four engine turboprop plane provides more maneuverability for a lot

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00:01:29,003 --> 00:01:32,983

the wide breadth of science objectives that we want to do. Also it's available

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00:01:33,013 --> 00:01:37,013

to support our science so. We only have seven months, it's an available aircraft.

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00:01:37,042 --> 00:01:41,032

Can it meet our needs? Yes, it can. So we're going with it.

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00:01:41,062 --> 00:01:45,232

One of the things I really enjoyed with working on ARISE is this element of cooperation.

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00:01:45,261 --> 00:01:49,251

I'm really proud of the team. I feel excited to be part of this mission.

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00:01:49,281 --> 00:01:53,331

And most of all, the entire scientific community out there is really excited about seeing all of our