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00:00:01,316 --> 00:00:01,446  
[Brandi Dean] Hi!

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00:00:01,446 --> 00:00:05,796  
Welcome back to the building nine Space Vehicle  
Mockup Facility at Johnson Space Center.

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00:00:06,096 --> 00:00:08,416  
The NEEMO 16 training is  
still going on behind us.

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00:00:08,416 --> 00:00:12,586  
And now we have with us the commander of the  
NEEMO 16 mission Dottie Metcalf-Lindenburger.

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00:00:12,756 --> 00:00:13,986  
Thank you so much for talking with us Dottie.

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00:00:13,986 --> 00:00:14,476  
[Dottie Metcalf-Lindenburger] It's a pleasure.

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00:00:14,476 --> 00:00:14,936  
Thank you.

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00:00:15,196 --> 00:00:16,506  
[Brandi] So how did you get involved in NEEMO?

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00:00:17,236 --> 00:00:22,256  
[Dottie] Well, we are actually selected as  
a crew so we're announced and selected based

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00:00:22,256 --> 00:00:25,996  
on probably some skill sets and  
what, we are an international team.

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00:00:26,406 --> 00:00:29,026  
So definitely participation from all of our IPs.

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00:00:29,206 --> 00:00:30,946

So that was really important.

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00:00:31,286 --> 00:00:31,566

[Brandi] Okay.

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00:00:31,566 --> 00:00:35,416

Yeah, you've got a couple of international astronauts that are part of the crew this year.

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00:00:35,636 --> 00:00:36,576

[Dottie] It's very exciting, yes.

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00:00:36,576 --> 00:00:38,396

[Brandi] One from the European Space Agency

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00:00:38,396 --> 00:00:43,446

and one from the Japanese Aerospace Exploration Agency and then also a university professor.

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00:00:43,816 --> 00:00:44,046

[Dottie] Yes.

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00:00:44,256 --> 00:00:44,826

It's exciting.

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00:00:45,056 --> 00:00:50,806

A great crew, a great mix of experience and, just, yeah, its international partners.

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00:00:50,896 --> 00:00:51,436

It's going to be great.

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00:00:51,626 --> 00:00:52,106

[Brandi] Good, good!

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00:00:52,416 --> 00:00:56,616

So now you of course have been into space and now are going to go down

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00:00:56,686 --> 00:00:58,366

and do a mission on the ocean floor.

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00:00:58,366 --> 00:00:59,746

That's pretty much the whole gamut.

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00:00:59,836 --> 00:01:00,886

That got to be...

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00:01:01,576 --> 00:01:08,026

[Dottie] Yeah, I thought about that too, going from being about 240 miles up to going down.

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00:01:08,416 --> 00:01:12,536

At this point we're going to be about 60 feet during the day and living

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00:01:12,536 --> 00:01:14,256

at about 40 feet under the water.

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00:01:14,316 --> 00:01:15,816

But it's pretty cool.

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00:01:16,546 --> 00:01:19,436

And both, if you think about it, both are definitely extreme environments.

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00:01:19,436 --> 00:01:26,986

That's why we pick them for NASA and they, of course working in space is what we're doing

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00:01:26,986 --> 00:01:31,616

and going to keep doing but NEEMO is going to offer us a lot of support for the future.

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00:01:31,766 --> 00:01:33,856

So that part, that's one of the reasons why we're going.

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00:01:34,066 --> 00:01:34,646

[Brandi] I'm sure, yeah.

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00:01:34,876 --> 00:01:37,646

I guess it's probably exciting for you to get your hands on some of that as well.

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00:01:38,026 --> 00:01:38,636

[Dottie] Absolutely!

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00:01:38,636 --> 00:01:42,646

As you can see behind us we are trying out some of the tools that we'll be using.

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00:01:42,646 --> 00:01:47,906

And thinking about as you are working near an asteroid just maybe will these tools work,

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00:01:48,606 --> 00:01:50,606

what wouldn't work about them.

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00:01:50,606 --> 00:01:53,336

And so you can see there's all sorts of things going on behind us.

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00:01:53,636 --> 00:01:53,716

[Brandi] Yeah!

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00:01:53,956 --> 00:01:57,626

So I guess we got somebody in a harness right now and then you're going to be getting

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00:01:57,626 --> 00:01:59,276

into that a little bit later today, right?

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00:01:59,276 --> 00:01:59,486

[Dottie] Yes.

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00:01:59,846 --> 00:02:02,346

Our goal has been, it's been fantastic.

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00:02:02,346 --> 00:02:07,256

I've used it actually to practice spacewalking  
for the Neutral Buoyancy Lab and what we do

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00:02:07,256 --> 00:02:08,576

up on the International Space Station.

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00:02:08,946 --> 00:02:13,306

But they completely converted  
that scenario into what would look

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00:02:13,346 --> 00:02:15,296

like maybe some asteroid materials.

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00:02:16,276 --> 00:02:17,816

We've got the stretched out line there.

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00:02:17,966 --> 00:02:19,966

So they can do a lot at this facility.

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00:02:19,966 --> 00:02:20,356

It's great.

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00:02:20,496 --> 00:02:24,446

[Brandi] Yeah, apparently space  
or underwater, whatever you need.

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00:02:24,986 --> 00:02:29,236

Alright, so what, I guess the  
mission's going to be about 12 days long

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00:02:29,236 --> 00:02:30,696

between the 11th through the 22nd.

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00:02:30,696 --> 00:02:31,076

[Dottie] Mm-hmm.

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00:02:31,466 --> 00:02:33,446

[Brandi] And so you're going  
to be living underwater all

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00:02:33,446 --> 00:02:36,716

that time I guess with a, in a small space.

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00:02:36,836 --> 00:02:41,096

[Dottie] Right, just like being on the  
International Space Station, smaller quarters.

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00:02:41,096 --> 00:02:45,526

Although, still like it's a habitat so you  
still have quite of bit of space there.

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00:02:45,526 --> 00:02:50,206

But yes, definitely confined except for  
that we will be doing spacewalks every day.

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00:02:50,306 --> 00:02:55,296

So, in fact two in the morning, two  
folks will go out and two will be inside.

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00:02:55,296 --> 00:02:57,506

One will be like the IV crew member

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00:02:57,506 --> 00:03:00,446

or intravehicular crew member  
who's giving all the instructions.

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00:03:00,766 --> 00:03:04,696

And then that team will switch out and the  
next folks will go outside and then one

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00:03:04,696 --> 00:03:06,776

of those folks will be another IV crew member.

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00:03:06,776 --> 00:03:11,396

So it's different than what we do in space  
where you do just one spacewalk in one day.

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00:03:11,486 --> 00:03:15,746

But this will give us a lot of experience,  
get everyone participating on the tools

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00:03:15,746 --> 00:03:18,996

and talking the same language  
and helping out that way.

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00:03:19,156 --> 00:03:20,936

[Brandi] And I guess you're, you're  
probably used to that, I mean,

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00:03:20,936 --> 00:03:24,066

from the Neutral Buoyancy Laboratory  
where we practice the spacewalks.

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00:03:24,106 --> 00:03:25,076

[Dottie] That's correct.

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00:03:25,256 --> 00:03:27,726

We do a lot of diving at  
the Neutral Buoyancy Lab.

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00:03:28,226 --> 00:03:31,156

There, you know, you have a  
depth of 40 feet as a max.

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00:03:31,336 --> 00:03:35,286

And you have very clean water and you  
have a, so you have very clean water.

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00:03:35,286 --> 00:03:38,736

Well, we'll experience the same down in  
Florida hopefully as we'll have clear water.

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00:03:38,736 --> 00:03:40,546

We'll actually have environment around us.

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00:03:40,576 --> 00:03:44,846

So that will be exciting to have fish and coral and that type of differences.

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00:03:45,256 --> 00:03:51,046

But again, both places were supported by extra divers and helping us to keep safe

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00:03:51,096 --> 00:03:53,046

and also help the tests go off correctly.

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00:03:53,046 --> 00:03:53,216

[Brandi] Okay.

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00:03:53,556 --> 00:03:55,366

Well anything in particular you're looking forward to?

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00:03:55,366 --> 00:03:59,336

[Dottie] Well I'm looking forward to the whole learning experience.

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00:03:59,386 --> 00:04:01,446

This week is really exciting with the training.

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00:04:01,446 --> 00:04:03,566

And we just came together today as a team

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00:04:03,936 --> 00:04:08,906

and already you can see we're having a lot fun, but really practical fun.

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00:04:09,226 --> 00:04:13,106

And then I am of course looking forward to the mission itself and living down there

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00:04:13,106 --> 00:04:18,636

for two weeks and conducting really good science  
as well as just meeting each other as a team.

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00:04:19,006 --> 00:04:22,736

Because we all are going to  
be working together for years

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00:04:22,816 --> 00:04:24,896

to come so that part's exciting too.

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00:04:24,896 --> 00:04:25,156

[Brandi] Okay.

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00:04:25,496 --> 00:04:27,006

Well hopefully we'll be able to check back

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00:04:27,006 --> 00:04:29,906

in with you during the mission  
in June and hear how it's going.

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00:04:30,036 --> 00:04:32,336

So good luck and thanks so  
much for talking with us.