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00:00:01,634 --> 00:00:03,602
>> Next up here on NASA TV,
we're going to take some time

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00:00:03,602 --> 00:00:06,305
out to head out to the
Marshall Space Flight Center

3
00:00:06,305 --> 00:00:09,442
in Huntsville, Alabama, where
Lori Meggs is standing by live

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00:00:09,442 --> 00:00:11,410
to tell us about an
upcoming anniversary

5
00:00:11,410 --> 00:00:14,146
for a highly successful
program that led the way

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00:00:14,146 --> 00:00:15,948
for science on the
Space Station.

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00:00:15,948 --> 00:00:17,016
Lori.

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00:00:17,016 --> 00:00:18,350
>> It was called Space Lab

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00:00:18,350 --> 00:00:20,953
and tomorrow marks 30
years since it launched.

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00:00:20,953 --> 00:00:23,589
Space Lab was a module inside
the Space Shuttle's payload bay,

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00:00:23,589 --> 00:00:26,392

where numerous science experiments were carried out

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00:00:26,392 --> 00:00:29,195

and it really did pave the way for the way we do science

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00:00:29,195 --> 00:00:30,563

on Space Station today.

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00:00:30,563 --> 00:00:32,531

We're privileged to have with us the Marshall Space Flight

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00:00:32,531 --> 00:00:35,000

Center's Deputy Director, Teresa Vanhooser,

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00:00:35,000 --> 00:00:37,570

who among other things that she's done here at this center,

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00:00:37,570 --> 00:00:39,572

you led some of those Space Lab missions.

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00:00:39,572 --> 00:00:40,606

Take us back to those days.

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00:00:40,606 --> 00:00:42,975

What was Space Lab like?

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00:00:42,975 --> 00:00:46,846

>> Wow. So Space Lab was a great team effort for a lot of us.

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00:00:46,846 --> 00:00:49,782

It was where all the Centers were able to come together

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00:00:49,782 --> 00:00:51,383
to accomplish a single mission

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00:00:51,383 --> 00:00:53,686
and also the international
partners.

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00:00:53,686 --> 00:00:57,656
So Space Lab was one of those
things that you could see

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00:00:57,656 --> 00:01:01,794
from beginning to end from
the inception of the mission

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00:01:01,794 --> 00:01:03,629
to all the way through
the operations

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00:01:03,629 --> 00:01:06,298
and through the scientists
actually getting their science.

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00:01:06,298 --> 00:01:07,833
>> And it really was fast paced.

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00:01:07,833 --> 00:01:10,970
You know, we've got 6 months now
but back then it was all packed

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00:01:10,970 --> 00:01:12,238
into maybe a couple of weeks.

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00:01:12,238 --> 00:01:13,572
Right?

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00:01:13,572 --> 00:01:16,442
>> Right. We had anywhere
from 10 days to about 2 weeks,

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00:01:16,442 --> 00:01:20,146
16 days, and we had
every minute planned

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00:01:20,146 --> 00:01:25,151
out for the whole mission
and so we took advantage

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00:01:25,151 --> 00:01:27,720
of every minute for the
crew time that we had

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00:01:27,720 --> 00:01:29,588
to actually conduct the science.

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00:01:29,588 --> 00:01:31,524
And we actually worked
shift work at that time,

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00:01:31,524 --> 00:01:34,293
so the crews had their red
shift and blue shift just

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00:01:34,293 --> 00:01:36,862
so that we can make
sure that we were able

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00:01:36,862 --> 00:01:38,197
to accomplish everything
we needed

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00:01:38,197 --> 00:01:39,932
to accomplish during
the mission.

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00:01:39,932 --> 00:01:41,600
>> How were the missions
carried out here?

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00:01:41,600 --> 00:01:44,236

I know we're standing next to
the room where it all happened.

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00:01:44,236 --> 00:01:46,172

How did we do business then

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00:01:46,172 --> 00:01:49,975

and how has technology
progressed today?

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00:01:49,975 --> 00:01:52,077

>> Let's see, during
the Space Lab days,

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00:01:52,077 --> 00:01:54,980

we actually had all the
scientists come here during the

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00:01:54,980 --> 00:01:57,449

mission and so we
had a room for them

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00:01:57,449 --> 00:02:01,220

where they actually could
interact with our teams

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00:02:01,220 --> 00:02:03,689

and could collect
their science data.

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00:02:03,689 --> 00:02:06,725

And so today, we've actually
technology has gotten us

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00:02:06,725 --> 00:02:08,127

to a place where
they can actually be

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00:02:08,127 --> 00:02:11,664
at their home facilities and we
can ship their science to them.

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00:02:11,664 --> 00:02:14,500
They can even talk to the
crew from their facilities

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00:02:14,500 --> 00:02:16,535
and so it's really
come a long way.

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00:02:16,535 --> 00:02:18,771
And so we were able
to actually make

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00:02:18,771 --> 00:02:21,073
that transition towards
the end of Space Lab

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00:02:21,073 --> 00:02:23,943
and so we had a good
practice ground for it.

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00:02:23,943 --> 00:02:25,044
>> And you bring
up a good point.

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00:02:25,044 --> 00:02:26,745
It really was our first
opportunity to work

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00:02:26,745 --> 00:02:28,147
with international partners.

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00:02:28,147 --> 00:02:29,582
What was that like?

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00:02:29,582 --> 00:02:30,883
>> Oh, it was great.

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00:02:30,883 --> 00:02:33,118

Sometimes I would go after
I would, during the mission,

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00:02:33,118 --> 00:02:36,822

I would go down to the science
operations area and each

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00:02:36,822 --> 00:02:40,626

of the teams had their own, you
know, they were working together

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00:02:40,626 --> 00:02:43,963

and were talking their own
language there and then

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00:02:43,963 --> 00:02:46,365

of course they all
spoke very good English,

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00:02:46,365 --> 00:02:49,768

so when they interacted with
us, it was, they spoke English.

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00:02:49,768 --> 00:02:52,905

But to go and just kind of hear
their teams talking and talking

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00:02:52,905 --> 00:02:54,840

about the science
they were able to get,

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00:02:54,840 --> 00:02:56,275

it was pretty phenomenal.

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00:02:56,275 --> 00:02:59,278

So for me, it was a great
experience to get to work

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00:02:59,278 --> 00:03:01,280

with all the different
international teams.

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00:03:01,280 --> 00:03:04,016

>> A lot of science accomplished
and it kind of takes us

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00:03:04,016 --> 00:03:05,217

through the progression now.

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00:03:05,217 --> 00:03:09,421

We've gone Sky Lab, Space
Lab, now Space Station,

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00:03:09,421 --> 00:03:10,623

but everything we've
learned is going

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00:03:10,623 --> 00:03:11,790

to take us into the future.

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00:03:11,790 --> 00:03:12,424

Right?

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00:03:12,424 --> 00:03:13,392

>> It has.

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00:03:13,392 --> 00:03:15,527

You know, both from
the development

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00:03:15,527 --> 00:03:18,230

of the payloads that
we fly on orbit.

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00:03:18,230 --> 00:03:21,300

We learned a lot during
Space Lab and what we do do

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00:03:21,300 --> 00:03:23,869

and what don't do, how we
do the design, and are able

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00:03:23,869 --> 00:03:28,741

to help the scientists as they
start building their hardware

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00:03:28,741 --> 00:03:30,476

now for the International
Space Station.

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00:03:30,476 --> 00:03:35,981

We can make sure that it's
actually going to work well

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00:03:35,981 --> 00:03:38,250

on orbit and the things
that they need to do

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00:03:38,250 --> 00:03:40,286

so that it's a lot
more crew accessible.

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00:03:40,286 --> 00:03:41,854

So, if they do have a problem,

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00:03:41,854 --> 00:03:44,223

then the crew can
actually help them out

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00:03:44,223 --> 00:03:49,595

and do some refurbishment on
orbit and help them fix it.

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00:03:49,595 --> 00:03:51,497

We also have learned
a lot about, you know,

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00:03:51,497 --> 00:03:54,466

working with the crew, what
kind of training do they need,

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00:03:54,466 --> 00:03:58,570

can we wait and actually give
it to them by video on orbit

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00:03:58,570 --> 00:04:00,873

because they have, you know,
especially with the six months.

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00:04:00,873 --> 00:04:04,276

It was easy when it was just
the 14 days to train them

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00:04:04,276 --> 00:04:06,312

on that short amount of
time, but when you're talking

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00:04:06,312 --> 00:04:09,648

about payloads that go up
early or that come up later

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00:04:09,648 --> 00:04:12,451

after they've already been
through their training,

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00:04:12,451 --> 00:04:16,955

we had to really be creative
in how we then train them

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00:04:16,955 --> 00:04:18,957

to be able to do
what we wanted to do.

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00:04:18,957 --> 00:04:23,195

>> I want to go back to, you
said you worked 12-hour shifts

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00:04:23,195 --> 00:04:25,864

and I know for you, life
went on at home too.

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00:04:25,864 --> 00:04:27,066

Tell us a little bit
about what was going

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00:04:27,066 --> 00:04:29,034

on at home while you were
managing these mission.

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00:04:29,034 --> 00:04:33,605

>> Yes. So my girls were 4 and 2
for the first Space Lab mission

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00:04:33,605 --> 00:04:35,908

that I was a part of and
I had the night shift

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00:04:35,908 --> 00:04:39,044

and so I worked the
6 p.m. to 6 a.m.

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00:04:39,044 --> 00:04:42,314

So my oldest daughter actually
got the chicken pox during

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00:04:42,314 --> 00:04:43,682

that time.

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00:04:43,682 --> 00:04:46,352

And so my husband would take
care of her at night, of course,

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00:04:46,352 --> 00:04:49,722

but during the daytime, I'd
come home and we'd just curl

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00:04:49,722 --> 00:04:51,090
up in the bed together.

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00:04:51,090 --> 00:04:53,392
And, of course, the good thing
was is that she was content

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00:04:53,392 --> 00:04:55,094
with that because she
didn't feel good anyway

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00:04:55,094 --> 00:04:57,296
and I actually was able to
get some sleep before I had

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00:04:57,296 --> 00:04:58,797
to go back on console.

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00:04:58,797 --> 00:05:01,100
So life does go on
and, you know,

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00:05:01,100 --> 00:05:03,602
that's part of the 24/7
operations and doing

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00:05:03,602 --> 00:05:08,507
that 365 days a year, our
operations team here has

123
00:05:08,507 --> 00:05:10,876
to be very adaptable
and they have,

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00:05:10,876 --> 00:05:12,745
it takes a great team
to pull that off.

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00:05:12,745 --> 00:05:15,114
And so if somebody has

some kind of family things

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00:05:15,114 --> 00:05:17,649

that they've got going
on, they're able to pull

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00:05:17,649 --> 00:05:20,252

on their cohorts
to help them out.

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00:05:20,252 --> 00:05:21,820

>> I'm trying to get
that Paycom job in there

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00:05:21,820 --> 00:05:23,222

to talk to the astronants.

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00:05:23,222 --> 00:05:24,723

>> That's probably
the coolest job

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00:05:24,723 --> 00:05:26,325

that [laughing] everybody wants.

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00:05:26,325 --> 00:05:28,394

>> Thank you so much, Teresa,
for sharing with us today.