



TS-134/AMS

1
00:00:13,916 --> 00:00:18,436
Scott, before we press ahead with a few other types of personal questions

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00:00:18,436 --> 00:00:24,446
about what lies ahead for you all, I'm intrigued always by Soyuz' landings.

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00:00:24,446 --> 00:00:26,956
I've been to the landing site many times myself.

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00:00:26,956 --> 00:00:28,456
You've seen the landings on TV.

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00:00:28,456 --> 00:00:30,406
Obviously you've trained now for them.

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00:00:30,756 --> 00:00:32,136
It's not wheel-stop Houston.

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00:00:32,566 --> 00:00:35,026
It's thump and bang and they call it the E-ticket.

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00:00:35,026 --> 00:00:39,746
Any, any U.S. astronaut who has rode home on the Soyuz calls it the E-ticket basically.

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00:00:40,186 --> 00:00:42,276
What do you think that's going to be like for you?

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00:00:42,796 --> 00:00:48,286
SCOTT - Well, I think it's an E-ticket if you consider like crashing, an E-ticket ride.

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00:00:48,286 --> 00:00:59,726
I mean, you know, my understanding is it's kind of a violent reentry and impact with the earth

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00:00:59,766 --> 00:01:02,516
that has really gotten some people's attention.

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00:01:02,516 --> 00:01:06,926
I'm glad I've talked to a lot of people
about it so hopefully it won't be as big

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00:01:06,926 --> 00:01:11,796
of a surprise but, it can be higher G-forces.

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00:01:12,076 --> 00:01:15,746
You know, the, the Soyuz spins
up underneath the parachute.

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00:01:15,746 --> 00:01:22,496
There's an equalization of pressure
that causes the inside of the vehicle,

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00:01:22,496 --> 00:01:30,086
depending on atmospheric conditions to fill up
with condensation seem, can seem rather smoky

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00:01:30,486 --> 00:01:38,856
to people and then you know, when you hit
the ground it's hard and then the vehicle

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00:01:38,856 --> 00:01:45,356
as you've seen can roll and be in a weird
orientation and all that, combined with the fact

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00:01:45,356 --> 00:01:47,786
that your body's somewhat de-conditioned

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00:01:47,786 --> 00:01:55,386
and your vestibular system is affected can make
it for, quite the violent surprising event.

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00:01:57,396 --> 00:02:01,736

Was it a dream of yours, both you
guys, um, perhaps far-fetched,

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00:02:02,436 --> 00:02:06,696

to fly together on a shuttle
mission or fly together in some way,

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00:02:06,696 --> 00:02:08,586

shape or form at some point in your careers?

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00:02:08,676 --> 00:02:10,176

MARK - We've talked about it, you know.

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00:02:10,176 --> 00:02:15,606

We've been here for fourteen years now and
thought that that would be a pretty neat thing

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00:02:15,606 --> 00:02:18,186

to do, didn't think it would ever really happen.

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00:02:19,006 --> 00:02:23,256

When, Scott's been assigned to this Expedition
flight for pretty long period of time.

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00:02:23,256 --> 00:02:29,626

I got assigned about a year ago to STS-134 with
a launch date which is actually the day today

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00:02:29,626 --> 00:02:30,576

that we're doing this interview...

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00:02:31,246 --> 00:02:31,716

SCOTT - July.

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00:02:32,276 --> 00:02:38,106

MARK - ...In July, so July 29th was the planned
launch date of 134 so I would have launched

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00:02:38,106 --> 00:02:40,546

and landed before he ever got to space station.

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00:02:40,796 --> 00:02:46,956
But when we were assigned and it, you know,
the way the shuttle program you do realize

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00:02:46,956 --> 00:02:50,386
that there's certainly opportunities
out there for flights to get delayed.

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00:02:51,016 --> 00:02:54,936
So we thought it was actually pretty
likely that we may fly together,

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00:02:55,606 --> 00:02:58,156
so it's something we thought about,
didn't really think would happen.

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00:02:58,336 --> 00:03:03,536
SCOTT - But, you know, earlier on in our career,
both being pilots and shuttle commanders,

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00:03:03,536 --> 00:03:08,016
there's only one pilot and Commander
on the space shuttle was, you know,

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00:03:08,016 --> 00:03:13,006
it was very unlikely that we would have
been on the same shuttle mission together.

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00:03:14,696 --> 00:03:23,286
So when STS-134 just by circumstance slipped to
February of 2011, you looked at the calendar,

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00:03:23,286 --> 00:03:28,216
was pretty obvious that you had a shot
at being together but not just that,

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00:03:28,276 --> 00:03:31,946
but two Commanders, twin

brothers, at the same time.

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00:03:32,436 --> 00:03:33,446

What a moment that must have been!

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00:03:33,446 --> 00:03:36,976

MARK - Yah, but, you know, these things just don't happen all at once so you kind

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00:03:36,976 --> 00:03:39,736

of see 'em comin' and there's a little bit of build up to it.

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00:03:39,986 --> 00:03:44,316

I mean, then you know before the launch date changes that it's actually going to change

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00:03:44,816 --> 00:03:47,346

so there isn't like this, you know, one point where you say,

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00:03:47,346 --> 00:03:48,676

"Oh, this is all going to work out."

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00:03:48,676 --> 00:03:50,386

It's kind of a gradual thing but...

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00:03:50,386 --> 00:03:52,896

SCOTT - It's quite possible this launch could slip a month

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00:03:52,896 --> 00:03:55,636

and you won't even be showin' this interview on television.

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00:03:56,246 --> 00:04:03,996

Let's assume that the stars align and you are in space together at the same time next February.

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00:04:04,736 --> 00:04:09,666

What thoughts do you think are going to be going through your head as the hatch is opened

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00:04:09,666 --> 00:04:11,496

for the first time and you guys greet each other?

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00:04:11,646 --> 00:04:15,696

MARK - These missions are incredibly complicated where, you know,

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00:04:15,696 --> 00:04:17,406

we're going to have twelve people in space.

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00:04:18,086 --> 00:04:19,416

All of us have to work together.

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00:04:19,416 --> 00:04:23,826

Scott and I have to work together to make sure this thing gets executed correctly

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00:04:23,826 --> 00:04:28,226

with nobody getting hurt and everything getting accomplished so it's really going to be more

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00:04:28,226 --> 00:04:31,306

about the mission than "Hey, we're in space together."

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00:04:31,676 --> 00:04:33,456

SCOTT - Yah, I would have to agree.

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00:04:33,456 --> 00:04:39,916

I mean, there'll probably be, you know, five to ten minutes of just kind of greeting

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00:04:40,116 --> 00:04:46,516

and reacquainting but after the safety brief there's a lot to do.

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00:04:46,776 --> 00:04:51,766

I will have been there almost five months
when these guys show up so, you know,

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00:04:51,766 --> 00:04:59,926

I'll be rather comfortable but having been in
Mark's shoes before I will understand the sense

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00:04:59,926 --> 00:05:05,016

of urgency that you feel to kind of get movin'
along on the timeline so there's not going

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00:05:05,016 --> 00:05:07,456

to be a whole lot of time for jokin' around.

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00:05:08,636 --> 00:05:12,516

I read someplace, I find it hard to believe,
that you guys have never shaken hands.

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00:05:12,616 --> 00:05:13,396

MARK - I don't think so.

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00:05:14,306 --> 00:05:15,076

You know, when you're a little kid, right...

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00:05:15,076 --> 00:05:15,256

SCOTT - Yah.

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00:05:15,256 --> 00:05:16,386

MARK - ...you don't shake hands.

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00:05:16,386 --> 00:05:18,116

You know, little kids don't shake hands, right?

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00:05:18,696 --> 00:05:20,086

When you're like three or four?

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00:05:20,716 --> 00:05:23,536

Or, in our case, when we
were fifteen or, you know,

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00:05:23,846 --> 00:05:26,986

it was just something we've never really
done so it's actually weird sometimes.

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00:05:26,986 --> 00:05:29,986

You're standing around in a group
and all these guys'll shake hands.

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00:05:29,986 --> 00:05:31,096

I don't think we actually.

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00:05:31,096 --> 00:05:33,376

SCOTT - And until very recently
I kind of noticed that.

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00:05:33,936 --> 00:05:40,026

Like I'll go up to some, we have mutual
friends and see 'em and shake their hands

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00:05:40,026 --> 00:05:42,856

and he's standing there with
one of them and I won't...

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00:05:43,296 --> 00:05:45,736

MARK - Yah, it's just, just
something we've never done.

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00:05:46,236 --> 00:05:49,276

Okay, so the hatch is open after
docking, what are you going to do?

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00:05:49,276 --> 00:05:51,416

Say, "Hi, nice to see you"
and just go about your bu-, I,

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00:05:51,676 --> 00:05:54,606

clearly you have to shake hands
or hug each other or something?

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00:05:55,016 --> 00:05:55,746

MARK - No, we don't.

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00:05:56,186 --> 00:05:58,046

We just do whatever we want to do.

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00:05:58,146 --> 00:05:59,736

See, he's the Commander of the space station.

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00:05:59,736 --> 00:06:01,016

I'm the Commander of the space shuttle.

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00:06:01,676 --> 00:06:04,216

So we will figure it out.

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00:06:04,356 --> 00:06:05,086

SCOTT - I'll go like this.

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00:06:05,086 --> 00:06:09,216

I'll go and do one of these.

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00:06:09,396 --> 00:06:12,726

Mark, as you mentioned, when you reach
the station as Commander of Endeavor

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00:06:12,836 --> 00:06:19,676

and Scott alluded to it, Scott'll be within
weeks of coming home if the current dates hold.

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00:06:19,956 --> 00:06:25,956

Is, is your time together during the week or so
of docked operations, how joyous will that be

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00:06:25,956 --> 00:06:30,126

for you having realized the dream that
you talked about a little earlier?

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00:06:30,536 --> 00:06:33,926

MARK - Oh, it's going to be a lot of fun but, like I said earlier, I mean,

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00:06:33,926 --> 00:06:36,446

these missions are really complicated.

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00:06:36,446 --> 00:06:40,276

It's a lot of work to be done so you tend to be focused on that.

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00:06:40,276 --> 00:06:46,096

I mean, we'll have a little bit of free time I guess you would call it in space to talk

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00:06:46,406 --> 00:06:50,666

about how unique this opportunity is and I'm sure we'll discuss that.

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00:06:50,716 --> 00:06:54,146

The thing I got to figure out is how I'm going to land the space shuttle in Florida

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00:06:54,876 --> 00:06:58,476

and then convince my boss to send me over to Baikonur for when he lands.

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00:06:58,476 --> 00:07:02,096

SCOTT - You know, it wasn't like a dream of ours to fly in space.

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00:07:02,096 --> 00:07:05,286

It's not like something we've dreamed

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00:07:05,286 --> 00:07:09,106

about since being little kids or thought would ever happen.

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00:07:09,106 --> 00:07:13,146

It's something that I both, I think
we both consider would be really neat

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00:07:13,266 --> 00:07:17,016

if it happened but, just having
the privilege of flying in space,

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00:07:17,196 --> 00:07:26,836

without flying together is just an incredible
opportunity and I always thought it'd be great

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00:07:26,926 --> 00:07:30,516

if it happened but if it didn't, you
know, I have no control over that.

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00:07:32,046 --> 00:07:37,816

And regardless of the timing of you two being
in orbit together, you will be flying in space

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00:07:38,406 --> 00:07:40,576

as the shuttle program is drawing to a close.

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00:07:41,426 --> 00:07:46,026

Can you reflect for a moment, each of you, on
what significance that holds for both of you

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00:07:46,026 --> 00:07:51,336

and what your thoughts are going to be about
what this program has meant over the course

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00:07:51,336 --> 00:07:53,696

of all the decades that it
has been in existence?

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00:07:53,836 --> 00:07:58,566

MARK - So when the space shuttle was designed,
it was designed to build the space station.

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00:07:59,376 --> 00:08:02,906

Early on, I mean, the plan was you're going to build this space truck

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00:08:02,906 --> 00:08:07,416

that could bring all this stuff up onto orbit, also to be able to service satellites in space.

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00:08:07,416 --> 00:08:11,546

But it was really designed to build the space station and we didn't get to that

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00:08:11,546 --> 00:08:15,156

until rather recently, ten years ago when we started construction of ISS.

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00:08:15,786 --> 00:08:21,096

So when we attach the Alpha Magnetic Spectrometer, AMS,

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00:08:21,586 --> 00:08:24,566

on the outside of the space station truss, I mean,

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00:08:24,566 --> 00:08:28,056

that's going to be assembly complete of ISS.

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00:08:28,056 --> 00:08:34,546

So I think the space shuttle will have completed and will have done what it was built to do.

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00:08:35,316 --> 00:08:39,886

It's going to be sad not have the shuttle around any more to fly.

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00:08:40,436 --> 00:08:42,136

It's an incredible vehicle.

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00:08:42,576 --> 00:08:48,476

Nobody has ever built anything as I think as complex but as capable as well.

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00:08:49,006 --> 00:08:55,156

But, you know, it's necessary, I think, to stop flying the space shuttle so we can move on

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00:08:55,156 --> 00:08:59,536

and build another spacecraft and get out of low earth orbit and explore our solar system,

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00:08:59,536 --> 00:09:02,706

so in some regard it's going to be sad but it's,

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00:09:02,766 --> 00:09:05,626

I think it's a necessary step so we can move forward.

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00:09:05,626 --> 00:09:09,446

SCOTT - Well, you know I think, certainly we need to reflect back on the shuttle program

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00:09:09,446 --> 00:09:12,726

and its successes and I agree with Mark a hundred percent.

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00:09:13,086 --> 00:09:14,266

It's an amazing vehicle.

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00:09:14,386 --> 00:09:22,176

It's been an amazing program, but it can't leave earth orbit by design.

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00:09:22,176 --> 00:09:25,676

I mean, it wasn't designed to do that and if we want to do something else,

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00:09:25,766 --> 00:09:29,946

our country does not have the resources to do both.

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00:09:29,946 --> 00:09:36,636

We cannot fly the shuttle program, support the
space station program and build something else