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00:00:02,080 --> 00:00:04,760
>> Okay great, we're back
again with Kevin Templin again.

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00:00:04,760 --> 00:00:08,110
He's the integration manager for
the Space Shuttle Program Transition

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00:00:08,110 --> 00:00:09,530
and Retirement Office.

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00:00:09,530 --> 00:00:12,550
Once again, Kevin, thank you for
taking time out and joining us

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00:00:12,550 --> 00:00:15,050
and we'll pick back up a little bit.

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00:00:15,050 --> 00:00:20,760
We covered a lot of, of course there's thousands
of components coming off the vehicle to preserve

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00:00:20,760 --> 00:00:25,470
and that type of thing, do you know if the
engineering community has learned anything yet?

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00:00:25,470 --> 00:00:30,490
Have you heard anything from, I guess
they're called STS Last, that kind of group?

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00:00:30,490 --> 00:00:34,740
>> Kevin Templin: That was kind of an internal
name we gave them, kind of a mission name

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00:00:34,740 --> 00:00:38,880
but it's just, you know, the whole
idea with that was retention hardware

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00:00:38,880 --> 00:00:46,250

for either further engineering knowledge, skill development, that type thing, or future use.

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00:00:46,250 --> 00:00:50,260
There's some thought that some of these parts might have some use on some smaller projects

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00:00:50,260 --> 00:00:56,030
or you know as we've mentioned even larger ones like SLS so they really haven't had time.

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00:00:56,030 --> 00:01:01,450
We just finished processing discovery and the other two vehicles, Atlantis and Endeavour,

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00:01:01,450 --> 00:01:06,430
that are down at KSC, are still undergoing the work to remove some of this hardware

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00:01:06,430 --> 00:01:12,440
and get it ready for display so the hardware is still being shipped out so if any

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00:01:12,440 --> 00:01:14,610
of the works done, it's been very little.

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00:01:14,610 --> 00:01:17,690
And that's really more future work for the engineering community.

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00:01:17,690 --> 00:01:23,790
>> Alright, well you know obviously it's painful anytime you retire an operational vehicle

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00:01:23,790 --> 00:01:31,050
to move on to you know the future programs that NASA's working on but you know these orbiters,

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00:01:31,050 --> 00:01:35,450
Discovery, of course, being delivered first,

but these orbiters still have a mission,

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00:01:35,450 --> 00:01:40,420
you know an educational mission, an opportunity
for people to see them that never have

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00:01:40,420 --> 00:01:47,550
and you've kind of been involved going around to
these sites where we're going to deliver them.

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00:01:47,550 --> 00:01:50,100
Is that the message you're
getting from those museum folks

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00:01:50,100 --> 00:01:51,680
when you have been meeting with them?

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00:01:51,680 --> 00:01:52,440
>> Kevin Templin: It is.

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00:01:52,440 --> 00:01:56,070
It is. They're actually working
together in some respects to try

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00:01:56,070 --> 00:01:58,400
and make their displays complimentary.

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00:01:58,400 --> 00:02:04,160
And so if you'll, when you see them in their
final display sites, you're going to see things

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00:02:04,160 --> 00:02:08,580
like the Air and Space Museum, they'll have
the vehicle on wheels as if it's rolled

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00:02:08,580 --> 00:02:09,900
to a stop at the end of a mission.

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00:02:09,900 --> 00:02:10,130

>> Right.

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00:02:10,130 --> 00:02:12,380

>> Kevin Templin: On the runway.

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00:02:12,380 --> 00:02:17,470

The Intrepid Sea, Air and Space Museum intends to take Enterprise and put it on display

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00:02:17,470 --> 00:02:22,150

as if it were on final approach so you have one landing.

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00:02:22,150 --> 00:02:29,200

Kennedy Space Center, which will have Atlantis, has a display designed which shows the vehicle

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00:02:29,200 --> 00:02:33,790

with payload bay doors open as if it's on orbit during the mission.

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00:02:33,790 --> 00:02:38,580

And in the California Science Center has a pretty ambitious plan to try and mount Endeavour

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00:02:38,580 --> 00:02:41,600

in the vertical as if it's ready to launch so

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00:02:41,600 --> 00:02:44,020

>> So that is all three different phases of program flight.

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00:02:44,020 --> 00:02:44,710

>> Kevin Templin: Very different phases.

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00:02:44,710 --> 00:02:45,660

That's right.

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00:02:45,660 --> 00:02:46,940

>> Very interesting.

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00:02:46,940 --> 00:02:48,800

Well let's move on.

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00:02:48,800 --> 00:02:56,750

Now, of course, we're getting ready for
Discovery's final trip to its home at the Air

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00:02:56,750 --> 00:03:01,140

and Space Museum and I know you
guys have had a ton of meetings

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00:03:01,140 --> 00:03:07,240

and of course you've just had a meeting to sort
of set the stage for the ferry flight, right?

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00:03:07,240 --> 00:03:08,240

How did that go?

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00:03:08,240 --> 00:03:10,220

>> Kevin Templin: It went really well.

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00:03:10,220 --> 00:03:14,940

It was Orbiter rollout review, which the
programs had many rollout reviews over the,

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00:03:14,940 --> 00:03:17,700

you know the course of the life of the program.

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00:03:17,700 --> 00:03:20,190

This one's a little different because of
the things we've already mentioned here

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00:03:20,190 --> 00:03:23,680

that the configuration of
the vehicle is different.

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00:03:23,680 --> 00:03:27,780

These rollout reviews are always held to make sure that the work we said we had to do

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00:03:27,780 --> 00:03:31,400
at the beginning of the processing flow was actually accomplished and anything we ran

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00:03:31,400 --> 00:03:34,640
into in between was solved appropriately.

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00:03:34,640 --> 00:03:35,940
This one went very smoothly.

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00:03:35,940 --> 00:03:38,560
It's, like you said, a little bit bittersweet.

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00:03:38,560 --> 00:03:39,630
It's a big milestone.

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00:03:39,630 --> 00:03:43,800
This vehicle is about ready to be backed out of the Orbiter Processing Facility and its next

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00:03:43,800 --> 00:03:46,080
>> We have a photo up.

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00:03:46,080 --> 00:03:46,650
>> Kevin Templin: We do.

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00:03:46,650 --> 00:03:48,690
We have a photo up of Discovery.

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00:03:48,690 --> 00:03:49,430
>> Yeah, there you go.

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00:03:49,430 --> 00:03:51,230
>> Kevin Templin: You can kind of see it from the end there

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00:03:51,230 --> 00:03:55,630

but you see the tail comes installed
so if things were going well,

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00:03:55,630 --> 00:03:59,630

well things did go very well,
we're going to roll the vehicle

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00:03:59,630 --> 00:04:03,190

over to the vehicle assembly building and
store it there until mid April when we're ready

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00:04:03,190 --> 00:04:05,010

to ferry off to the Air and Space Museum.

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00:04:05,010 --> 00:04:08,190

So this vehicle is buttoned up
and ready for display, basically.

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00:04:08,190 --> 00:04:13,720

>> Right, so of course Discovery going to
the Air and Space Museum outside Washington,

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00:04:13,720 --> 00:04:18,840

D.C. and then of course then we're going to pick
up Enterprise, which has been there for while.

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00:04:18,840 --> 00:04:22,610

>> Right, this one is kind of unique because we
delivered Enterprise to the Air and Space Museum

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00:04:22,610 --> 00:04:26,260

in 1985 and it's been in
their possession since then.

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00:04:26,260 --> 00:04:31,020

And so we're going to end up picking
up the vehicle from a non NASA facility

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00:04:31,020 --> 00:04:32,970
and ferrying it off to its new site.

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00:04:32,970 --> 00:04:34,040
>> And there's your picture.

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00:04:34,040 --> 00:04:35,390
It shows it under crane.

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00:04:35,390 --> 00:04:42,340
That's one thing I wanted you to touch on is
we don't have the permanent mate demate devices

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00:04:42,340 --> 00:04:47,520
that are located in California and Florida
and so we have to do a unique operation for

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00:04:47,520 --> 00:04:48,850
>> Kevin Templin: We definitely do.

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00:04:48,850 --> 00:04:54,120
We, if people are used to seeing the mate demate
devices at Kennedy Space Center or even the one

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00:04:54,120 --> 00:04:58,460
out at Dryden Flight Research Center where
we sometimes land at the end of the mission

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00:04:58,460 --> 00:05:02,650
and it makes it very easy for us,
relative, right, everything is relative,

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00:05:02,650 --> 00:05:05,910
easy for us to mate the vehicles
up and to offload the vehicles

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00:05:05,910 --> 00:05:07,720
when we need to do that at those sites.

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00:05:07,720 --> 00:05:12,930

But the sites we're going to do not have these facilities so we actually have a contingency set

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00:05:12,930 --> 00:05:16,800

of hardware if we ever needed to do a transatlantic abort, that sort of thing,

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00:05:16,800 --> 00:05:21,550

that we could use hardware to load up the orbiters on the carrier aircraft

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00:05:21,550 --> 00:05:23,690

and bring it back to the Kennedy Space Center.

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00:05:23,690 --> 00:05:26,610

We've used the hardware before but it's been a long time.

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00:05:26,610 --> 00:05:30,250

The last time we actually used that hardware was when we delivered Enterprise to the Air

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00:05:30,250 --> 00:05:34,120

and Space Museum in 1985 so we've had some dress rehearsals with the hardware

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00:05:34,120 --> 00:05:36,350

down at the Kennedy Space Center, make sure that procedures,

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00:05:36,350 --> 00:05:38,840

we understand them, we know how to operate this.

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00:05:38,840 --> 00:05:42,470

And we'll be using this hardware at every one of the sites we ferry a vehicle to.

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00:05:42,470 --> 00:05:46,730

When we go to Dulles we'll have this

hardware erected to offload Discovery

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00:05:46,730 --> 00:05:51,820

and then we will have it in place to load up Enterprise and we'll have to take all

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00:05:51,820 --> 00:05:59,460

that ground support equipment down, send it up to JFK International in New York,

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00:05:59,460 --> 00:06:01,580

put it back together to offload Enterprise.

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00:06:01,580 --> 00:06:01,810

>> Right.

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00:06:01,810 --> 00:06:04,040

>> Kevin Templin: And we'll send it all out to California to LAX

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00:06:04,040 --> 00:06:06,290

and do the same thing to offload Endeavour out there.

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00:06:06,290 --> 00:06:11,500

So this picture, I think, was actually from an offload that we did

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00:06:11,500 --> 00:06:14,660

in 1984 at Mobile for the World's Fair.

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00:06:14,660 --> 00:06:15,720

>> Oh that's right.

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00:06:15,720 --> 00:06:18,090

That's when we took Enterprise out there.

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00:06:18,090 --> 00:06:18,740

That's correct.

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00:06:18,740 --> 00:06:19,790

>> Kevin Templin: Uh huh, uh huh.

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00:06:19,790 --> 00:06:20,570

>> Well that's great.

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00:06:20,570 --> 00:06:26,150

You know it's a lot of work that's going on to get these vehicles ready.

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00:06:26,150 --> 00:06:31,860

It's almost like processing for a flight and of course it is an operational mission to get them

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00:06:31,860 --> 00:06:35,560

to their final display sites at all of these museums.

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00:06:35,560 --> 00:06:37,570

>> Kevin Templin: It definitely has that feel of operations,

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00:06:37,570 --> 00:06:42,880

even though the end game here is a little different than a central orbit,

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00:06:42,880 --> 00:06:47,230

we're operating under the same sort of rules and procedures so.

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00:06:47,230 --> 00:06:53,130

>> Right. What's next for you when this all wraps up, probably toward the end of the year?

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00:06:53,130 --> 00:06:55,370

>> Kevin Templin: I've had that question a lot and to be honest with you there's

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00:06:55,370 --> 00:06:57,930
so much activity right now I haven't
had a lot of time to focus on that

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00:06:57,930 --> 00:07:00,340
but the agency has a lot of things going on,

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00:07:00,340 --> 00:07:02,280
going forward through you
know the Space Shuttle.

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00:07:02,280 --> 00:07:07,420
The station is up and operational and we have
the Orion Space Capsule being developed here

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00:07:07,420 --> 00:07:09,910
at the Johnson Space Center and
then the Space Launch Center

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00:07:09,910 --> 00:07:11,570
so a lot of things I can go look at.

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00:07:11,570 --> 00:07:16,190
I'm not sure where I'll end up landing in
the end but I'll need to start focusing

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00:07:16,190 --> 00:07:19,290
on that probably this summer after we get
a couple of these ferries under our belt.

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00:07:19,290 --> 00:07:22,710
>> Yeah, well we really appreciate
you stopping by, Kevin,

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00:07:22,710 --> 00:07:27,450
to kind of give us an update that's been going
on with all the activities with the orbiters

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00:07:27,450 --> 00:07:32,120
as they wind up their service, obviously,

and head out to all the museums.

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00:07:32,120 --> 00:07:34,170

Kevin Templin the integration manager

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00:07:34,170 --> 00:07:37,620

for the space shuttle program's
Transition and Retirement Office.