

[DOOR CREAKING OPEN]

ELSA: Joy? Hey, Joy, are you home?

JOY: I'm in my room. Follow the sound of my voice. Hey, Elsa. Thanks so much for coming over. I need your help organizing my room.

ELSA: Whoa, Joy, there's a lot going on in here. Is that a giant golden cupcake?

JOY: Oh, yeah, it's a trophy. I won the US Cupcake Eating Contest back in '08, but I won't bore you with the details. Here, I'll just throw that in my closet.

[CRASHING]

ELSA: What about that thing?

JOY: That's the magical flute I used to lure all the squirrels out of my chimney a few years ago. So many squirrels. I won't bore you with the details, but I can't get rid of it.

[STOMPING]

[ELEPHANT TRUMPETING]

ELSA: Joy, is that what I think it is?

JOY: Oh, yeah, that's Hermie my baby elephant. I won't--

BOTH: --bore you with the details.

JOY: Yeah. Here, you get on that side, and I'll get on this side. And we'll just--

[GROANING]

[ELEPHANT TRUMPETING]

--nudge him in the closet.

ELSA: [PANTS] Joy, how were you able to fit all of this stuff in your closet?

JOY: Oh, I've always been able to throw things in there that couldn't go anywhere else.

ELSA: Haven't you ever wondered what's in there?

JOY: I mean, maybe sometimes.

ELSA: Come on, let's just take a little peekie-poo.

JOY: Just a peekie-poo?

ELSA: Just a little peekie-poo.

[RUMBLING]

[MYSTICAL WHIRRING]

BOTH: Whoa!

[SPLASHING]

ELSA: (ECHOEY) Where are we? Oh, it's so dark in here.

JOY: (ECHOEY) Oh, shoot, I forgot. I threw a black hole in my closet.

ELSA: (ECHOEY) You did what!

JOY: (ECHOEY) I had to put it somewhere, Elsa. Oh, look, my fuzzy unicorn onesie. Mm, it's so cozy.

ELSA: (ECHOEY) Wait, you've been throwing all your stuff into a black hole in your closet?

JOY: (ECHOEY) It's perfect. A black hole is a place in space that has so much gravity that nothing can get out, not even light or Hermie.

[ELEPHANT TRUMPETING]

It's the perfect storage closet.

ELSA: (ECHOEY) Um, Joy.

JOY: (ECHOEY) Huh?

ELSA: (ECHOEY) If nothing can get out, how are we supposed to?

JOY: (ECHOEY) Oh, don't worry about it. I've got an anti-gravitational transporter ray somewhere in here. We just got to find it. [GASPS] And, look, a bag of peanuts for Hermie!

[ELEPHANT TRUMPETING]

[UPBEAT MUSIC]

JOY: Welcome to *Forever Ago* from APM Studios. I'm Joy Dolo.

ELSA: And I'm Elsa.

(ECHOEY) Today, we're stuck in a black hole with a baby elephant and about 500 pounds of old junk.

JOY: (ECHOEY) Um, exsqueeze me. My collection of limited-edition presidential snow globes is not junk. And this is exciting. Who would have thought we'd spend the afternoon and, potentially, the rest of our lives trapped in space?

I mean, sure, I was supposed to take my pet rat to the vet today and get my car fixed. Oh, and give a toast at my cousin's wedding. Oops.

ELSA: (ECHOEY) Don't forget, we're also supposed to talk about the history of women astronauts today.

JOY: (ECHOEY) Oh, that's right, but we can still do it. I mean, we are in space, after all. Elsa, what do you know about astronauts?

ELSA: (ECHOEY) Well, I know that they have a very brave and daring job.

JOY: (ECHOEY) Yeah.

ELSA: (ECHOEY) And you have to have a lot of mental and physical abilities. And the training process is really difficult.

JOY: (ECHOEY) Oh, yeah, I've heard that, too. Like, I wonder if I could even do it. Because when I was in school, we used to do track and field day, and I had to run the mile or whatever. And I was always middle last, very middle, middle last.

ELSA: (ECHOEY) Yip, that's about where I am.

JOY: (ECHOEY) You too? [CHUCKLES] It's hard, it's physical, so we've got to respect that profession. Have you ever dreamed about what it would be like to go to space?

ELSA: (ECHOEY) Well, when I was in kindergarten to first grade, I loved space.

JOY: (ECHOEY) Oh!

ELSA: (ECHOEY) I really wanted to be an astronaut for a period of time. But now, one of my greatest fears is being alone. And I feel like in space, just thinking about how lonely you would be, how small you are, and just seeing the whole galaxy around you, that's just-- it's pretty intimidating.

JOY: (ECHOEY) It is pretty intimidating, yeah. Do you have a favorite fact or anything that you like specifically about space?

ELSA: (ECHOEY) Well, what I like about space is that [CHUCKLES] there's zero gravity.

JOY: (ECHOEY) Yeah.

ELSA: (ECHOEY) So if you're not a great dancer or if you're not really flexible, you can totally, I guess, jump around, do cartwheels, and have fun jumping around in space. I would totally want to do that.

JOY: (ECHOEY) I think I would do that, too. It would be cool to get a trampoline in space--

ELSA: (ECHOEY) Oh, yeah

JOY: (ECHOEY) --and just do crazy flips and stuff. So, today, we're talking about women astronauts and--

ELSA: (ECHOEY) Wait, hold up, Joy. I can barely see where you are. Before we start, can we get some light in here?

JOY: (ECHOEY) Here, what if I just--

ELSA: (ECHOEY) Ouch!

JOY: (ECHOEY) Oh, sorry, sorry.

ELSA: (ECHOEY) Oh, there's something spiky over there.

JOY: (ECHOEY) Oh, that's OK. That's my old banana. That's something I got in middle school.

ELSA: (ECHOEY) Oh, that's kind of gross. Ow!

[CRASHING]

Oh, that's sticky!

JOY: (ECHOEY) I'm going to move over behind you. I'm going to go behind you. I think-- [GASPS]

[MATCH LIGHTING]

--there, I knew I had a campfire in here somewhere.

ELSA: (ECHOEY) Aah, much better.

JOY: (ECHOEY) The story of the first American woman to go to space is pretty well-known.

ELSA: (ECHOEY) Yeah! Sally Ride was the physicist who flew on the *Challenger* Space Shuttle in 1983. And it was a really big deal.

[TV SWITCHING ON]

MAN (ON TV): And liftoff, liftoff of STS-7 and America's first woman astronaut.

[TV SWITCHING OFF]

ELSA: (ECHOEY) Hey, where'd that little TV come from?

JOY: (ECHOEY) Oh, I put it in here, so Hermie could watch his favorite nature documentaries. He's such a David Attenborough fanboy.

[ELEPHANT TRUMPETING]

Anyway, it was a groundbreaking moment in history, when Sally Ride went to space. A Russian woman named Valentina Tereshkova had already gone to space before her. But what you might not know is that before either of them, a group of bold, courageous women almost made it there.

ELSA: (ECHOEY) They were part of a super-secret astronaut testing program for women. They called themselves the FLATs.

JOY: (ECHOEY) FLATs stands for Fellow Lady Astronaut Trainees. And, today, we're telling their story.

ELSA: (ECHOEY) Yeah, they spent years training and making a case for why women should be allowed to become astronauts, just like men.

JOY: (ECHOEY) And by pushing for change, they helped build a foundation for generations of women who came after them.

ELSA: (ECHOEY) To really tell their story, we have to go back to the 1950s.

[UPLIFTING MUSIC]

JOY: Technology was advancing really quickly around this time. The microwave oven had just been invented.

[MICROWAVE PINGING]

Computers were so huge, they took up entire rooms.

ELSA: And people were obsessed with outer space. At this point, humans had only ever seen space through a telescope. And there was still so much we didn't know about it.

JOY: So people spent a lot of time imagining what it was like. There were books and comics and even a bunch of TV shows all about space. Here, hand me that remote.

[TV SWITCHING ON]

[DRAMATIC MUSIC]

MAN (ON TV): Today, the famous Kraft TV cameraman focuses on--

[MYSTICAL MUSIC]

--outer space for another exciting adventure in the world beyond tomorrow.

[TV SWITCHING OFF]

ELSA: (ECHOEY) But space fever was just getting started. In 1957, the world's first human-made satellite was launched into orbit, *Sputnik 1*. And it was built by a country called the Soviet Union.

[MYSTICAL MUSIC]

JOY: The Soviet Union used to be this massive nation that spanned Eastern Europe and included Russia. Eventually, it would break up into a bunch of separate countries a few decades later. But, at the time, it was super powerful.

ELSA: And building the *Sputnik* satellite was a big accomplishment for them. It was about the size of a beach ball and could circle the entire planet in just over an hour and a half.

JOY: Nowadays, there are thousands of satellites circling the Earth day and night, but *Sputnik* was the very first. And its launch marked the start of something big, the Space Race.

[WHIRRING]

ELSA: (ECHOEY) It sounds kind of like a really long marathon in outer space.

JOY: (ECHOEY) Yeah, or rushing to get as far away from other people as possible, like out of my way, people, give me some space!

ELSA: (ECHOEY) The actual Space Race was even more intense.

[DRAMATIC MUSIC]

It was this decades-long competition between the US and the Soviet Union to see who could be the first to get to outer space.

JOY: A few months after *Sputnik* goes up, the Americans try to send their own satellite into space, a tiny one the size of a softball. The rocket lifts just a few feet into the air and then crashes onto the launch pad, exploding into a fireball.

[EXPLOSION]

ELSA: [GASPS] Whoa! Talk about a flop-nik.

AMERICAN: More like stay-putnik, [SCOFFS] am I right?

ELSA: But, eventually, NASA's scientists figure out the kinks and send the first American satellite into space.

[WHOOSHING]

Then another.

[WHOOSHING]

And another!

[WHOOSHING]

AMERICAN: Oh, you think your satellite is fancy? Look at our American satellite, it's super shiny, and it has a cosmic ray detector.

[WHIRRING]

SOVIET: Well, we just sent a dog into space in hours.

[BARKING]

AMERICAN: Oh, yeah, well, we're going to send two monkeys into space.

ELSA: (ECHOEY) Even as the two countries are launching satellites into orbit and constantly one-upping each other, they have their sights set on something much bigger, the moon.

[ELEPHANT TRUMPETING]

Yeah, I know, Hermie. Oh, wait, he just wants another peanut.

[PACKET RUSTLING]

[MUNCHING]

JOY: (ECHOEY) The Americans and the Soviets both really wanted to be the first to land on the moon. In 1961, President John F. Kennedy set a pretty ambitious goal. Hermie, where's that remote?

[TV SWITCHING ON]

PRESIDENT KENNEDY (ON TV): I believe that this nation should commit itself to achieving the goal before this decade is out of landing a man on the moon and returning him safely to the Earth.

[TV SWITCHING OFF]

ELSA: (ECHOEY) President Kennedy said the US would try to put an American astronaut on the moon by the end of the 1960s.

JOY: (ECHOEY) And that really turned up the heat on NASSAU to make it happen. Build the space shuttles, train the astronauts, all of it.

AMERICAN: All right, everyone. You heard President Kennedy. We have to work faster. From now on, new rule, no more walking around NASA headquarters. To save time, we're going to run from room to room, starting now!

[RUNNING FOOTSTEPS]

ELSA: (ECHOEY) At this point, there weren't any rules saying that women couldn't become astronauts.

JOY: (ECHOEY) But NASA did require all astronaut applicants to be military test pilots.

ELSA: (ECHOEY) And that was a job that was not open to women at the time because women were not allowed to be in military combat roles.

JOY: (ECHOEY) So women in the US were automatically excluded from becoming astronauts, even women who were highly-trained pilots with years of flying experience.

ELSA: (ECHOEY) Like Jerrie Cobb!

[DRAMATIC MUSIC]

Jerrie grew up in Oklahoma in the 1930s. She started flying small planes with her dad when she was about 12 years old.

JOY: And from the beginning, she was hooked. She got her solo pilot's license when she was 16. And by the time she was 20, she had her private and commercial pilot's license. All she wanted was to get a job flying planes.

ELSA: But, at first, no one would hire her because she was a woman.

JOY: Today, there are laws saying you can't skip over someone for a job because they are woman or a person of color, have a different religion from you, or have a disability. But back then, employers did this a lot. And for women, that meant they didn't get a lot of jobs.

ELSA: But after applying and applying and applying, Jerrie finally landed a job as a co-pilot in Florida.

JOY: But when she showed up for her first day of work, well, let's just say things didn't go as planned.

EMPLOYER: You put Jerrie on your application, uh, so we thought you were a man. How were we supposed to know Jerrie is short for Geraldyn? [CLEARS THROAT] Sorry, ma'am, but women just don't belong in the cockpit. Don't worry, though. I'm sure someone around here needs a secretary.

ELSA: (ECHOEY) But Jerrie didn't give up. She kept applying for jobs and, eventually, she got one, working as a pilot for a company that delivered airplanes all over the world, including B-17 bombers.

JOY: (ECHOEY) [GASPS] You know what? I think I have one of those in here.

[RUMBLING]

ELSA: (ECHOEY) Joy, you put a bomber plane in your closet black hole? Do I even want to know?

JOY: (ECHOEY) Oh, you can find anything at a garage sale.

ELSA: (ECHOEY) Uh-huh. Anyway, Jerrie's new job was dangerous. She flew back and forth to South America over jungles and through the Andes Mountains.

JOY: (ECHOEY) One time, she was even arrested in Ecuador because officials there thought she was a spy.

[SUSPENSEFUL MUSIC]

ELSA: (ECHOEY) And while she was doing all of this, she was also smashing world records.

[TV SWITCHING ON]

FEMALE (ON TV): This hotshot lady pilot just can't be stopped, folks. I'll tell you, she's really something to watch. Here she comes right now. She's--

[AIRPLANE SWOOSHING]

Oh! Look out!

[TV SWITCHING OFF]

JOY: (ECHOEY) In 1959, the year she turned 28, Jerrie broke two world records, the record for longest, non-stop flight and the fastest ever flight. That year, she was named Pilot of the Year by the National Pilots Association.

ELSA: (ECHOEY) By this point, she had spent 7,000 hours flying planes.

JOY: (ECHOEY) And it's around this time that she meets Dr. William Randolph Lovelace.

[DRAMATIC MUSIC]

ELSA: He's a scientist that NASA hired to help test and select the first seven American astronauts.

JOY: They were called the Mercury Seven. And they were all men.

ELSA: Which is not surprising because, like we mentioned earlier, NASA required all astronauts at the time to be military test pilots, a job that was not open to women.

JOY: But Dr. Lovelace has a hunch that women might actually make better astronauts than men if given the chance. On average, he figured, women are smaller than men, so he thought they would consume less food and oxygen, which would be a big advantage on cramped space flights.

ELSA: So in 1960, Dr. Lovelace starts a top-secret testing program at his research center in New Mexico only for women who are interested in becoming astronauts. Jerrie is the first to sign up.

JOY: [GASPS] Top secret. So cool. It's like James Bond but in space. Jane Bond, 00-lady pilot.

ELSA: The testing program for female astronauts is totally under the radar. It's not an official NASA program.

JOY: Yeah, it's funded with private donations, but the testing is the same as what the male astronauts went through.

ELSA: And it's designed to be really hard.

JOY: The doctors have Jerrie swallow a rubber tube longer than a baseball bat, so they can test her stomach acid.

ELSA: They put her on a spinning table to test her blood circulation.

JOY: And they shoot ice water into her ears to make her feel dizzy and unbalanced, a feeling that astronauts experience in space.

ELSA: Jerrie passes every test. And not only that, she does better than almost all of the men who had been tested before her.

JOY: Dr. Lovelace wonders are all women this good or is there just something really special about Jerrie.

(ECHOEY) So he recruits another 24 female pilots to go through the testing.

ELSA: (ECHOEY) The oldest, Jane Hart, is 41 years old, a skilled pilot. As a teenager, she had been the first woman in the state of Michigan to get her pilot's license. She also happens to be the wife of a US Senator.

JOY: (ECHOEY) The youngest is Wally Funk. She's only 21, so she has to get special permission to take the tests.

ELSA: (ECHOEY) Like the others in the group, Wally started dreaming of becoming a pilot when she was just a kid. She'd carve airplanes out of wood and hang them from the ceiling of her bedroom.

JOY: (ECHOEY) Wally's working as a flight instructor when she hears about the astronaut testing. She writes to the program right away to ask how she can get involved. And later, she's shocked to be selected.

ELSA: (ECHOEY) Wally's so excited. Here, she is talking about that moment many years later in 2017.

WALLY FUNK: I get a call. It said, do you want to be an astronaut? I said, oh, my gosh, yes! And he said be here on Monday to take these tests.

ELSA: (ECHOEY) Dr. Lovelace starts putting Wally and the other new recruits through the same grueling tests that Jerrie went through. The rubber tube, the ice water in the ears, all of it.

WALLY FUNK: I had needles stuck in every part of my body, tubes running up my bottom, so I went along with it. It didn't bother me.

JOY: (ECHOEY) And the recruits do really well. Another 12 female pilots pass their astronaut tests with flying colors, including Wally.

ELSA: (ECHOEY) While all of this is happening, the US and the Soviet Union are still battling it out, trying to be the first to get to outer space.

JOY: (ECHOEY) And in April 1961, it happens. The Soviet Union puts the first ever human into space, a pilot named Yuri Gagarin.

CHILD: Extra, extra, read all about it. Soviets send man to space. Returns to Earth safe and sound.

ELSA: (ECHOEY) Um, Joy, why is there an old-timey kid selling newspapers in your closet?

JOY: (WHISPERS) He must have wandered in here by accident at some point. I really have to organize this closet.

ELSA: (ECHOEY) Oh, I'll say. Anyway, a few months after the Soviets send the first man to space, the Fellow Lady Astronaut Trainees finish all of their tests.

JOY: (ECHOEY) And the women are getting ready to go through the second round of testing in Florida when the US government finds out what Dr. Lovelace is up to and pulls the plug on the program.

ELSA: (ECHOEY) And everything comes to a screeching halt.

[ELEPHANT TRUMPETING]

Don't worry, Hermie, the story isn't over yet. How about we take a break and make some intergalactic marshmallow sandwiches over the campfire?

JOY: (ECHOEY) Marshmallow sandwiches? Oh, you mean--

BOTH: S'mores!

JOY: (ECHOEY) I've always wanted to eat s'mores in space. While we wait for our marshmallows to get nice and toasty, let's play--

[UPLIFTING MUSIC]

CHILDREN: First things First!

[MYSTICAL MUSIC]

JOY: (ECHOEY) That's the game where we try to guess the order things came in history. Today, we're looking at famous firsts in Women's History. They are first woman to reach the peak of Mount Everest, first female millionaire, and first woman to win a Nobel Peace Prize. Which do you think came first, which came second, and which came most recently in history? Elsa, which one is the oldest in your mind?

ELSA: (ECHOEY) Ooh, in my mind--

JOY: (ECHOEY) Mm-hmm.

ELSA: (ECHOEY) --I feel like the oldest would-- oh, what do I think the oldest would be? I think the oldest would be the Nobel Peace Prize.

JOY: (ECHOEY) Nobel Peace Prize?

ELSA: (ECHOEY) Wait, no. No, no, no.

JOY: (ECHOEY) No, no, no. No, no, we'll take that back. We take that back. [CHUCKLES]

ELSA: (ECHOEY) I think the oldest would be a woman millionaire.

JOY: (ECHOEY) Oh, yeah. Why do you think that?

ELSA: (ECHOEY) I think because-- um, I mean, obviously, money has been a thing going around for years and years and years--

JOY: (ECHOEY) For a long time.

ELSA: (ECHOEY) --so that seems like the oldest, in my brain at least.

JOY: (ECHOEY) That's a good guess.

ELSA: (ECHOEY) Um, and then I would say, hm.

JOY: (ECHOEY) So we got the first woman to reach the peak of Mount Everest.

ELSA: (ECHOEY) Mm-hmm.

JOY: (ECHOEY) And then the first woman to win the Nobel Peace Prize.

ELSA: (ECHOEY) I would say the Nobel Peace Prize would be second oldest.

JOY: (ECHOEY) OK, Nobel Peace Prize.

ELSA: (ECHOEY) And then I would say Mount Everest.

JOY: (ECHOEY) And then Everest.

ELSA: (ECHOEY) Yes.

JOY: (ECHOEY) OK, so we have the order of millionaire, Nobel Peace Prize, and Mount Everest. Why do you think Nobel Peace Prize second and Mount Everest third?

ELSA: (ECHOEY) I think Mount Everest was later because-- well, I feel like a lot of women didn't really have that on their mind at the time.

JOY: (ECHOEY) Oh, yeah.

ELSA: (ECHOEY) And I feel like Nobel Peace Prize because it's such a general area.

JOY: (ECHOEY) Mm-hmm.

ELSA: (ECHOEY) Um, I mean, it's a very important award.

[CHUCKLING]

JOY: (ECHOEY) Yeah.

ELSA: (ECHOEY) So, I mean, obviously, anyone would be honored to get that. And I feel like it's been going on for quite a bit of time.

JOY: (ECHOEY) I think so, too, yeah.

ELSA: (ECHOEY) So I think I would put that one second and Mount Everest third.

JOY: (ECHOEY) Yeah. You know what I'm thinking, too? Mount Everest, you need all these equipments and stuff to climb it. You can't just like walk up it, so I'm thinking maybe the tools came maybe a little later for that?

ELSA: (ECHOEY) Yeah, that's smart, yeah.

JOY: (ECHOEY) It always seems like extreme sport. And I don't know, that's my guess. So just to recap. Well, you think the first female millionaire and then the first female to win a Nobel Peace Prize and then the first female to climb Mount Everest.

ELSA: (ECHOEY) We'll get to the answers in just a bit.

JOY: (ECHOEY) And if you have ideas for First Things First or topics you'd like to hear us cover on the show, please send them to us. Go to ForeverAgo.org/contact. History is everywhere.

What do you want to explore? Tell us. Again, that's ForeverAgo.org/contact. Thanks so much to all our listeners for sending in suggestions.

ELSA: (ECHOEY) We'll be right back.

[QUIRKY MUSIC]

MAN: Did you know that before modern refrigeration, some people kept milk from spoiling with--

[CROAKING]

--frogs? Today, we keep many food products refrigerated to prevent bacteria from spoiling them. The warmer temperatures allow bacteria to grow at a faster rate, which in milk can not only turn it sour and chunky, but can also make it dangerous to drink.

But before refrigeration was available, people living in Russia had a different strategy, dropping a frog in their bucket of milk. While it's not clear how this tradition started and it might seem toad-ally nuts, it might have actually worked. In 2012, scientists in Moscow reported that Russian brown frogs ooze bacteria-fighting compounds, called peptides, from their skin.

[SLURPS] [SIGHS]

[CROAKING]

[INTERMISSION MUSIC]

JOY: (ECHOEY) OK, all right, Elsa. Let's reveal which of our First Things First is actually the oldest. No way. Has anyone ever said that you're the smartest person alive?

ELSA: (ECHOEY) Really?

JOY: (ECHOEY) You're the smartest person alive! You got it!

ELSA: (ECHOEY) I got all of them?

JOY: (ECHOEY) You got them all! First woman to become a self-made millionaire was Madam CJ Walker. She was the first to earn more than \$1 million.

She was born Sarah Breedlove in 1867. She was an African-American entrepreneur who founded a hair and skin care industry, specifically for Black women. Madam Walker saw that while the cosmetics industry was booming, there were almost no products specifically for Black hair and skin. She developed formulas based on remedies she had used for her own dandruff and other skin issues.

Madam Walker made sure that the business staff she assembled gave Black women opportunities. She was also an activist and philanthropist throughout her life and often traveled to give lectures on political and social matters to large audiences. You know, that's so funny. I knew about Madam CJ Walker.

ELSA: (ECHOEY) Yeah, but it doesn't come to mind when you're thinking about this right now.

JOY: (ECHOEY) Right. And she was Black, too, that's awesome. Second, we have first woman to win a Nobel Peace Prize, Baroness Bertha Sophie Felicitas Von Suttner was awarded the Nobel Peace Prize in 1905 for her work against war and violence.

She wrote one of the most influential books of the 19th century, an anti-war novel called *Lay Down Your Arms--* arms as in weapons, not the limbs attached to your shoulders, which was published in 1889. She eventually became friends and pen pals with Alfred Nobel, the dynamite manufacturer and weapons dealer turned peace seeker. And they exchanged many letters over the years about war and peace.

She is thought to have influenced Nobel's decision to give his fortune to fund an award for world peace, the Nobel Peace Prize. And then last but not least, the first woman to reach the peak of Mount Everest, that is the most recent in history. Junko Tabei was a Japanese mountaineer, who was the first to set foot on the peak of Mount Everest in 1975.

She had wanted to be a mountain climber for years but kept getting told that women should be raising children instead. Aah, that makes sense. Tabei went on to climb the highest mountain on every continent, which means that she was also the first woman to complete the Seven Summits Challenge.

She said of her Everest climb that she wanted to be remembered as the 36th person to reach the peak, not just the first woman. In November 2019, a mountain range on Pluto was named after Tabei in recognition of her mountaineering accomplishments. On Pluto! So she's in space, too!

ELSA: (ECHOEY) Oh, wow!

JOY: (ECHOEY) She's everywhere.

ELSA: (ECHOEY) [CHUCKLES]

JOY: (ECHOEY) So what do you think about that?

ELSA: (ECHOEY) I think that's really cool.

JOY: (ECHOEY) Is any of this information new to you, like the Nobel Peace Prize and any of that?

ELSA: (ECHOEY) The Nobel Peace Prize is totally new to me.

JOY: (ECHOEY) Yeah.

ELSA: (ECHOEY) I would have never-- it was just an educated guess.

[CHUCKLING]

JOY: (ECHOEY) That's a very good guess. You did a very good job, yeah. And then Tabei, that was interesting, that thing of women should be raising children and not going to climb mountains and stuff. That is a common rhetoric that sometimes you still hear today.

But it's so cool how you could see different women doing all these different things. And it's not so far away. It's not so forever ago, one would say. Did you see how I did that? I put the name of the show into the--

ELSA: (ECHOEY) I do see how did that, yes.

JOY: (ECHOEY) Cool. All right, [CHUCKLES] moving right along.

[MYSTICAL MUSIC]

We're trapped in my closet black hole today, which is the perfect opportunity to talk about the amazing women who went through a secret astronaut testing program in the 1960s.

ELSA: (ECHOEY) All of the women were highly-trained pilots with thousands of hours of flying experience.

JOY: (ECHOEY) And 13 of them passed the first round of testing. Afterwards, they're supposed to go to the US Naval Base in Pensacola, Florida, for their next round of testing.

ELSA: (ECHOEY) But then, someone contacts NASA and basically says, hey, did you know there are women training to be astronauts? Did you authorize this testing?

LORETTA HALL: And NASA came back and said, what testing? We haven't authorized any. And then that at that point, the Navy said, well, without authorization, we're not going to continue.

ELSA: (ECHOEY) That's our friend Loretta Hall. She's a writer, who spent years researching and writing about the history of women in space.

JOY: (ECHOEY) "Just like that," Loretta says, "the testing is canceled. The program shuts down."

ELSA: (ECHOEY) It's a huge blow for the women who have spent months preparing.

LORETTA HALL: So some of them really were quite shocked that they were not going to be allowed to become viable candidates for astronauts.

ELSA: (ECHOEY) But by now, word of the secret testing program has gotten out.

JOY: (ECHOEY) *Life magazine* publishes an entire article all about Jerrie Cobb with the headline, A Lady Proves She's Fit for Spaceflight. It includes full-page photos of her taking her astronaut tests.

ELSA: (ECHOEY) Women and girls from across the country start writing to Vice President Lyndon B. Johnson to ask about the program.

[PEN WRITING]

FEMALE WRITER 1: Dear, Mr. Johnson, I think the United States should send a woman in space. Let the women who are willing have a chance to help in the progress of our country.

FEMALE WRITER 2: The intelligence, patriotism, initiative, and creative ability of women is the most wasted resource in this country.

FEMALE WRITER 3: Mr. Vice President, unless we do something very soon, the Russians will be the ones to put the first woman in space!

JOY: (ECHOEY) But the vice president is not convinced. Remember, this is the Space Race. His goal is to put an American on the moon as quickly as possible.

ELSA: (ECHOEY) And he believes training women to be astronauts will throw a wrench in the whole thing.

LORETTA HALL: It was just going to, in his mind, open an enormous can of worms that was going to slow things down incredibly. And so he just-- he wanted to nip it in the bud.

JOY: (ECHOEY) He decides it's time to put an end to this idea. So at the bottom of a letter written to a NASA official in 1962, the vice president writes, "let's stop this now" in big letters.

ELSA: (ECHOEY) But the women in the training program aren't going to give up without a fight. That same year, Jerrie and another one of the FLATs, Jane Hart, go to Washington and speak to Congress in front of a large crowd.

[GAVEL BANGING]

JOY: (ECHOEY) They argue that women can make important contributions to space exploration, and ask Congress to restart the testing program for female astronauts.

LORETTA HALL: They were genuinely trying to accomplish something for their group of women. They were not taken seriously.

ELSA: (ECHOEY) The committee decides the women aren't qualified to become astronauts, even though they have thousands of hours of flying experience and had passed the same tests as the men.

JOY: (ECHOEY) The following year, the Soviet Union sends the first woman into space.

[ROCKET LAUNCHING]

[ELEPHANT TRUMPETING]

I know, Hermie, it's a really intense Space Race. Have a peanut.

[PACKET RUSTLING]

[ELEPHANT TRUMPETING]

Hermie, you have to calm down so we can finish our story.

ELSA: (ECHOEY) Joy, look behind you!

JOY: (ECHOEY) [GASPS] Ooh, my pep band cymbals from middle school.

[CYMBALS CLANGING]

We have the gift of music.

ELSA: (ECHOEY) No!

JOY: (SINGING) Bam, paa, da, hey! Ba-da-da-da, da, baa, da, hey! Ba-da-da-da--

ELSA: (ECHOEY) No, no, no, behind the cymbals. It's the anti-gravitational transporter ray. We can get out of here!

[ELEPHANT TRUMPETING]

JOY: (ECHOEY) You're right, Hermie. Let's finish our story, and then we'll blast out of this black hole. Come sit by the fire with me, and we'll have some more peanuts.

[PACKET RUSTLING]

[MUNCHING]

ELSA: (ECHOEY) So not long after the FLATs were told women couldn't be astronauts, big changes started happening in the US.

JOY: (ECHOEY) Activists in the Civil Rights Movement began pushing for racial equality and helped ensure that Black people had the same rights as white people, like their right to vote.

ELSA: (ECHOEY) And there was a movement that fought for equal rights for women.

JOY: (ECHOEY) This movement helped push politicians to pass new laws to keep employers from discriminating against women.

ELSA: (ECHOEY) Like when those airlines wouldn't hire Jerrie as a pilot because she was a woman.

JOY: (ECHOEY) These laws helped pave the way for women to eventually become astronauts because discriminating against them was now illegal. And over the years, women have led space walks, become commanders, and lived on the International Space Station.

[ELEPHANT TRUMPETING]

Totally, Hermie. These were all big accomplishments for women astronauts.

ELSA: (ECHOEY) To this day, though, no woman or person of color has ever set foot on the moon.

JOY: (ECHOEY) But NASA plans to change that. The Artemis Space Program hopes to send the first woman and person of color to the moon by 2025.

ELSA: (ECHOEY) And even though the 13 women who went through the secret testing program never became astronauts, Loretta says they were proud of the achievements of the women who came after them.

JOY: (ECHOEY) In 1995, when Eileen Collins became the first woman pilot of a US Space shuttle, the surviving members of the *Mercury 13* traveled to Florida to watch the liftoff together.

ELSA: (ECHOEY) Wally Funk, the youngest member of the *Mercury 13* was there to celebrate.

LORETTA HALL: And during that launch, as the launch vehicle was leaving the launch pad, Wally was standing there punching the air saying, go, Eileen! Go for all of us! It was not just a personal goal, but it was a communal bonding experience. It was an achievement for women, not just one individual.

JOY: (ECHOEY) And Wally also had a special achievement of her own. She went to space last year on a private spacecraft.

ELSA: (ECHOEY) She was 82 at the time, making her the oldest person to ever go to space.

LORETTA HALL: She was just so delighted that her dream finally came true. I mean, she would have preferred to be the pilot of the spacecraft. She would have preferred to go into orbit for a couple of weeks, but, by golly, she made it into space. And that's what she'd been striving for, for so long. She was just totally thrilled.

[UPLIFTING MUSIC]

JOY: (ECHOEY) The Fellow Lady Astronaut Trainees were an extraordinary group of women, who spent years making a case for why women are just as qualified to become astronauts as men.

ELSA: (ECHOEY) They didn't become astronauts themselves, but by pushing for change, they helped blaze a trail for generations of women who came after them.

JOY: (ECHOEY) In the US, it's now illegal to discriminate against women, people of color, and other groups.

ELSA: (ECHOEY) Yeah, they've become astronauts, commanders, and gone on spacewalks. And, pretty soon, women and people of color will visit the moon, too.

[METALLIC WHIRRING]

JOY: (ECHOEY) Elsa, it's time for us to blast out of this closet. Hermie, you coming home with us?

HERMIE: (ECHOEY) Of course, I want to leave, Joy. Let's blow this Popsicle stand.

ELSA: (ECHOEY) You've been able to talk this whole time?

[WHIRRING]

[WHOOSHING]

[INTERMISSION MUSIC]

JOY: This episode was written by Shahla Farzan. We had help from Menaka Wilhelm, Tom Weber, Anna Goldfield, Sanden Totten, Molly Bloom, Nico Gonzales-Wisler, [INAUDIBLE], Rosie Dupont, Ruby Guthrie, and Anna Weggel. Sound design by Rachel Breeze.

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ELSA: Have a topic that you're itching to know the history of? Send it to us at ForeverAgo.org/contact.

JOY: Yeah, we love hearing your ideas. We'll be back next week with our last episode of the season all about the history of braids. See you next time and thanks for listening.

[UPLIFTING MUSIC]