

AirSpace Transcript Season 8, Episode 5 - Don't Rain on my Parade

AirSpace theme in then under

Matt: Happy Thanksgiving, and welcome to Airspace from the Smithsonian's National Air and Space Museum. I'm Matt.

Emily: And I'm Emily. Since this episode is dropping on Thanksgiving day, we got to thinking that we should talk about something holiday related. So we thought, what about parade balloons?

Matt: The Macy's Thanksgiving Day Parade balloons have been a holiday staple since being introduced for the fourth annual parade in 1927. Today, computer drafting and other modern techniques make it possible to have true to screen characters turned into balloons.

Emily: We decided to call up Macy's and get the 411 on these iconic airborne masterpieces. That's today on Airspace. Presented by Olay.

AirSpace theme up and out

Emily: Okay. Matt, tell me about your magical Macy's Parade memories.

Matt: So I think, you know, like a lot of people my age, even if you didn't grow up in New York, right? You have these memories of watching the Macy's Thanksgiving Day Parade on television every year. It was just sort of, you know, part of Thanksgiving Day, and it was something you enjoyed as a kid, of course, because all of your favorite cartoon characters were there in the parade.

And, you know, even today, right, you can find the parade Streaming online or, you know, on your television, if you still watch television. Um, but, uh, yeah, I mean, it's one of those things that's just, I think a cultural touchstone, no matter where you live in this country.

Emily: Do you remember growing up watching it and feeling very strongly about a very particular balloon? Like, was there a character that you were just super happy they made into a balloon?

Matt: Well, I mean, I think, you know, as a kid, of course, I watched a lot of cartoons. I loved Snoopy. I loved the Smurfs, you know, stuff like that, and only later did I get into

superheroes and start to appreciate the superhero balloons, which, of course, have gotten a lot more popular and a lot more complicated as time has gone on.

But I think, you know, when I was a kid, it was like those classic cartoon characters. Snoopy, and Mickey Mouse, and, and, you know, those kind of kids cartoon characters. What about you?

Emily: It will, well, I think it would be a surprise to literally no one that I did not grow up watching the Macy's Day Parade. Nor do I have particularly fond memories of it because I don't have any memories of it. Um, but what I can tell you is when I think of Macy's Day, Macy's Day Parade balloons. I have very core memories around the Friends Thanksgiving episodes and their very first Thanksgiving episode in season one is The One Where Underdog Got Away¹, where one of the Macy's Parade balloons gets loose and floats across Manhattan.

So that's gonna be my core memory, Matt, because I don't, I don't know why we didn't watch it. I don't know if my parents weren't that interested in it. I don't, if I had to guess, we didn't get that channel because we only ever got like one or two channels on the antenna.

Matt: Well, and, and little did you know then that you would one day be working for the Air and Space Museum and that we would be doing an episode where we're, you know, kind of loosely interpreting what, uh, flight is for this episode and, and bringing in these hot air balloons and you'd learn all about them, right?

Emily: I mean, little did I know, I mean, you're right. It's a loose interpretation, um, because there are, we've talked about hot air balloons², right? And so, and, and they're piloted. They float in the air. So you can see sort of how we got here, um, despite the fact that the FAA has nothing to do with parade balloons. It has everything to do with the Department of Transportation, but bear with us. It's going to be awesome.

Emily: So just to get ahead of things here, Matt and I want to be super clear, Macy's Thanksgiving Day Parade is not the only parade that has balloons. Detroit³, hey what's up? But, since Macy's is the longest running and probably the most well known, those are the folks we reached out to.

¹ <https://www.imdb.com/title/tt0583492/>

² <https://airandspace.si.edu/editorial/airspaces6ep1>

³ <https://theparade.org/>

Kathleen: I am Kathleen Wright⁴. I am the Director of Production Operations for Macy's Studios, and I have the pleasure of overseeing a lot of the operations and logistics of the Macy's Thanksgiving Day Parade.

Emily: so the Macy's Thanksgiving Day Parade has been around for a really long time and the balloons are almost as old as the parade.

Kathleen: Back in 1924⁵, the Macy's Christmas Parade as it had started, um, looked very, very different. Um, there were a lot of live animals in the parade. There were a lot of marchers in the parade, and there's still a lot of, um, marching positions in our parade.

But in 1927⁶ was when we first introduced balloons to our line of march and over the years, they've looked very different. Um, and technology has been on our side in that sense. If you look back at a lot of our earlier characters in the parade, um, the image and likeness to those characters is not nearly as precise as we're able to get it now.

So when you see our giant characters flying, uh, in the parade this year, they're immediately recognizable and exactly as, um, the original creators of those characters, um, would like to see them in our line of march. So we've really changed those balloons, um, and how they're produced over the years. Um, and it's really been, um, to see and to really look back and look at, you know, look forward at this point to how much more we can really do to get those balloons as exact to their characters as possible.

Matt: So, and, and here's an interesting thing. I mean, today it is kind of, you know, a big fiasco if a balloon runs away from the parade, but back in the early days, those early balloons were actually just released at the end of the parade. And if you found the deflated balloon somewhere and brought it back to Macy's, you could actually claim store credit.⁷ Yeah.

Emily: I think my initial reaction to that was, Well, that's a terrible idea. Those things are just gonna like...clog up something and just, that's just bad littering, right? I guess all littering is bad. That's just littering. But I didn't think about the safety factor. I mean, they're just letting these things go. Although I suppose, um, they were smaller back then,

Matt: They were smaller. And then also if you think we're talking about like the 1920s, um, it's not like there was a lot of traffic for them to disrupt, right? There weren't these

⁴ https://macysthanksgiving.fandom.com/wiki/Kathleen_Wright

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<https://guides.loc.gov/this-month-in-business-history/november/macys-thanksgiving-parade#:~:text=Originally%20known%20as%20the%20Macy's,Central%20Park%20Zoo%20were%20featured.>

⁶ <https://daily.jstor.org/occ-macys-thanksgiving-day-parade/>

⁷ Fun fact from Ryan Gannon, Associate, External Communications for Macy's Inc

big major freeways with high speed automobiles, you know, maybe it was a little less of a hazard than it would be today.

Emily: but we're just not accustomed to letting those kinds of things just go off into the ether and. assume that they will be taken care of. Um, but I think it's also really interesting that Macy's was outsourcing the manufacturing and the design of these balloons for a long time before they brought it in house to the Macy's Parade Studios⁸.

And why I think that's really interesting is usually these things go in the opposite direction, right?

Matt: Yeah, that's absolutely, you know, right, right? Like, we think about the way things go is that eventually you end up hiring contractors who specialize in something and they're working for a bunch of different people, right? Contracting, making the thing and getting it to multiple clients. But in this case, it's just all in house. It's all Macy's.

Emily: and they've gotten really, really good at it. Right? Gone are the days. or the early days where the balloons maybe were representations of famous characters or well known characters at the time compared to these days where it's like that balloon looks exactly like a giant version of the three dimensional cartoon character, right?

Matt: And, you know, if you think about how animation styles have changed since the 1920s to now, you know, animated characters have also gotten a lot more complicated than those early, uh, cartoons where you were basically using very basic line drawings to represent animated characters, and now you've got all of these incredibly realistic 3D rendered characters and a lot more merchandising around them as well, so everyone is very familiar with what they're supposed to look like.

Emily: Right, and I think what's interesting is it's not just the way in which they're constructed I think contributes an awful lot to the representation of these characters in more detailed ways, right? And they're not just doing this by, um, sewing together a bunch of fabric and like inflating it. It's a lot more complicated than that.

And if you remember listening to our episode on hot air balloons from a few seasons ago called 99 Luftballons, we talked mostly about how you make that sort of classic teardrop shape hot air balloon. And We also mentioned that there's some novelty balloons that folks will put people in the little basket and fly around. But those novelty shapes are actually created in a different way than that sort of classic teardrop hot air balloon And so those novelty balloons... are constructed really similarly to the Macy's Day balloons by sort of creating these shapes that look like cartoon characters made up of, I don't know,

⁸ https://macysthanksgiving.fandom.com/wiki/Macy%27s_Parade_Studio

airbags? How would you describe it, Matt? Like lots of little, specifically shaped balloons kind of, stuck together?

Matt: it's kind of, yeah, like smaller chambers, right? Rather than it all being one big balloon, you have the shape and then inside of that shape are all of these individual chambers that get filled. And what's interesting too is that, you know, as Kathleen told us, they're able to use those chambers and fill them in different ways to help control the balloon's flight.

Kathleen: Yes, absolutely. So there's a lot of things, um, that we do on our side in order to make sure that our balloons are looking as exact as possible. Um, and one of the ways that we do that is by creating the balloon in different chambers. So when you see a Macy's balloon flying down, uh, Central Park West or Sixth Avenue, um, it's not just one giant balloon.

It's actually a series of balloons that are all attached to one another. Um, so a balloon could have, you know, six, eight, nine chambers inside of that one balloon. Um, and that is so we can create very exact, uh, dimensions. styles and shapes of those balloons. Um, and it's also so that we can, um, really monitor the lift of the balloons, some of those chambers may be filled slightly with, um, cold air, some with more helium so that we can really manage the lift of the balloons so that they fly at the right pitch down the parade march.

Emily: Yeah, this is where physics gets cool, right? I mean, we already know physics is cool. Um, the parade balloons are helium balloons, right? And so that's really different than a hot air balloon. Because we're not using heat. But in both instances, we're trying to get air to be lighter than the air on the ground.

And in the case of the parade, right, in the case of a hot air balloon, you heat up the air, it expands, it gets lighter, it rises. In the case of the parade balloons, we're talking about helium. Which, if you've seen a helium balloon recently, right, it's lighter than air, so it floats, and it goes up into the ceiling. And if you don't tie it around your wrist like a good little kid, you're gonna lose it.

Matt: Yeah, and when we say lighter than air what we really mean right is less dense. And then that less dense gas is trying to reach a level of the atmosphere of equal density, right? So that's why it rises and then adding the cold air which is more dense. Sort of brings it back down and allows it to find equilibrium at a lower height.

Emily: Well, and this is where I had, this was, I thought, very interesting, because this is where I think the physics gets even cooler, is the designs of these balloons, because

they're made up of all these different chambers, you can fill the different chambers with different amounts of helium, which help you sort of create the right floating pose, the right balloon posture, if you will, so that as these balloons get walked down the parade route, you can get them to look the way you need them to look from the ground, and also take into consideration what the weather is doing that particular day, and you do that by sort of changing what you put into each individual chamber in that balloon.

So it's not just chambers designed to create the shapes you want. It's also engineered to make sure that when you fill that balloon, you can do it in such a way to control the attitude

Matt: Yeah, or basically like the the posture of the character, right?

Emily: Right.

Matt: So all of this is actually part of the design phase of making these balloons. So before any fabric is even cut, all of these decisions have to be kind of made on the computer to figure out how the design is going to work with the chambers and the hot, or hot air, with the chambers and the helium and the cold air.

Kathleen: So, um, our first sketch may be a, um, a beautiful sketch of, uh, let's use Snoopy as example. So this year we have the Beagle Scout Snoopy balloon by Peanuts in our parade. And so, um, when we have the first sketch of that Snoopy balloon, it might not be in the most ideal flight position for that balloon to fly down the line of March.

So we'll do several edits. to, um, the position, the tilts, the lean, um, in that kind of 3d rendering phase of this balloon. Um, and then once all of the design is reviewed, approved, um, it's almost similar to, um, making a piece of clothing. So it's pieces of fabric that are stretched out over, um, tables and tables and tables.

And then they are heat sealed together, um, to make those different chambers for, um, each of the balloons. And then, uh, gallons upon gallons of paint on top of those, um, pieces of fabric to make sure, uh, that everything is color correct to the creative of the balloon. And once we have a fully, fully finished balloon.

Uh, we will test fly it indoors. We will test fly it outdoors and make sure that is parade ready for Thanksgiving morning.

Emily: So we mentioned, you know, I mentioned before, usually after a company's been doing something like this in house for a while, they end up outsourcing it. But in this case, Macy's started creating the balloons themselves, and they still do that today. And

the question I have for you, Matt, is when you talk to Kathleen, where do you do, where do you have a balloon studio that can handle this many parade balloons in Manhattan?

Matt: Right, and you know, the balloons aren't small, and not only do you have to have them all in one space, you have to test fly them indoors. And so, you know, that's where I ask Kathleen, like, how do you even have enough space? Like, where do you do this work before the parade?

Kathleen: Our studio in New Jersey is about 72,000 square feet and that is where all of our floats in the parade and all of our balloons are built and refurbished. In that space we are able to fully inflate a balloon inside, uh, so that we can be doing the paint and doing, um, all of the fabrication, uh, indoors.

Matt: And even though the parade happens just once a year, it's not like they're only using that facility. Once a year or just in a few months leading up to the parade. It's actually, you know, a lot of work Getting these balloons ready to be tested, bringing in handlers, training handlers, getting the balloons inspected and getting them essentially, um, you know inspected and licensed by the New York Department of Transportation So a lot of work is getting done there just leading up to the parade

Emily: And it kind of culminates in Balloon Fest⁹, which happens in November. No, it's not a public event. I asked. Um, but it's an event that if you're a special press person, you get to get a press pass and you can go to this event where you get to watch them inflate these balloons and make sure that they will be functioning and ready for the Thanksgiving Day parade.

Um, and this is where we sort of go back to sort of bridging that gap between, you know, aircraft and hot air balloons and sort of Macy's Day balloons is just sort of one. slight small step below hot air balloons because they're really constructed similarly, um, and they do need to be inspected by, you know, authority figures.

No. They do need to be inspected by official

Matt: Um, so then, you know, finally, we do get to Thanksgiving Eve, uh, the night before all of the action happens. Well, actually, it's the night when the action's already happening, because that's when all the balloons have arrived in New York City and have to be inflated.

Emily: And this is where you can go if you actually want to catch a glimpse and start your parade festivities early, right. Matt?

⁹ https://macysthanksgiving.fandom.com/wiki/Macy%27s_Balloonfest

Matt: That's right. And in fact our own Sophia Soto Sugar, who is often credited at the end of these episodes, uh, got an invitation to go to the inflation event. And if you

Emily: is that what it's called, Matt? It's called the Inflation

Matt: I know the inflation

Emily: capital letters.

The Inflation Event¹⁰.

Matt: Well, yeah, Sophia got to go to the inflation event and if you wanna see photos and videos of that, then check out our social media¹¹.

Kathleen: So the day before the parade, we have a massive inflation event uptown. So, uh, the Macy's Thanksgiving Day Parade steps off on Central Park West and 77th Street. And uptown around, uh, at 77th Street and on 81st Street is where all of the balloons in the lineup are inflated. And so that typically takes Depending on, um, you know, other factors of loaded and the entire parade converging on, uh, uptown will typically start inflating our balloons at around 9 a. m. and finish at around 4 p. m. Um, and then all of the balloons are inflated, uh, and they'll take a quick nap before Thanksgiving morning when they will fly down the route.

Emily: And then this is where it gets good, right? I mean, there's a huge number of folks who are involved, not just in the parade planning, but in the balloons, right? So not only do you have to design the balloons, Construct the balloons. Test the balloons. You have to get them ready for parade day. And if you've ever either seen pictures of a balloon on parade day, or you've watched the parade, you know that there's a huge team on the ground keeping those balloons tethered so that they don't do an Underdog and float away.

Matt: Yeah. And depending on the weather conditions, particularly the wind, those balloons might be flying higher or lower in order to maintain control of them. Because as you can imagine, right, these balloons, um, because they're not aerodynamic shapes, they can really, you know, become a sail, uh, and get blown around by strong winds.

10

<https://www.cbsnews.com/newyork/news/balloon-inflation-2023-how-to-watch-giant-characters-come-to-life-for-this-years-thanksgiving-parade/>

¹¹ <https://www.instagram.com/airspacepod/?hl=en>

Emily: Right, and so there's a whole management team who's monitoring the weather, monitoring the inflation of these balloons, and instructing and handling the large team of people holding on to those tethers,

Kathleen: So we have on each giant character balloon, about 90 balloon handlers¹², uh, that will march with that balloon down the parade route. And in addition to those balloon handlers, we have what we call our flight management team. So we have a team of what we call pilots who really manage... the flight profile of the balloon and they are focused on making sure that the balloon is flying to the right height given the wind conditions that day.

And then we also have a team of captains in our, uh, flight management team who are more responsible for that balloon handlers. So they're making sure that the handlers have tension on their balloon handling line and that they're staying in the right lines. Um, so it's really, uh, a coordinated leadership team that marches with every single balloon down the parade route.

Um, and they're constantly in communication with one another. Our flight management team is on radio and constantly giving updates to each other on, Hey, I'm seeing this on the back of the balloon. Let's make some adjustments. So, um, while it may seem to some that these, uh, these balloons just fly by the magic of Macy's down the parade, it's a lot of coordination in the lead up to the parade just to make sure that everyone knows how to do it on Thanksgiving morning.

Matt: And, you know, this gets to where, you know, maybe you or I could eventually potentially fit in here, because I don't see myself wearing the earpiece and telling people what to do, but I could definitely dress up in a costume, um, you know, a costume like the

Emily: coordinating costume Matt,

Matt: Yeah. And I could be a balloon handler, which in fact, you know, a lot of the balloon handlers on the ground are volunteers.

They're Macy's friends and family who are there for the day to help, you know, walk that balloon down the street.

Emily: but you have to be a friend or family or a Macy's employee, Matt.

12

<https://www.usatoday.com/story/life/2021/11/26/whats-like-hold-up-balloon-macys-thanksgiving-day-parade/8753139002/>

I don't think you can just use your, like, cred and

Matt: I mean, how, how hard can it be to become friends with a Macy's employee? They're all very friendly people, right?

Emily: They are very friendly people, but you're going to have to

Matt: I'm going to have to, work

Emily: going to have to work, you're going to have to work at

Matt: Yeah. You have to put in the work, you know?

Emily: But if any of you out there

are Macy's employees and you have an in, you call

Matt: Yeah. Yeah, that's right.

Emily: hook us up for next year. We'll be there.

AirSpace theme up then under

Emily: AirSpace is from the Smithsonian's National Air and Space Museum.

It's produced by Jennifer Weingart and mixed by Tarek Fouda production help by Sofia Soto Sugar. Our social media manager is Amy Stamm, and our intern is Jenna Bertschi.

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