

# Episode\_86-So-You-Want-to-be-a-Thunderbird-Insider-Perspecti...

Mon, 7/25 3:25PM 49:42

## SUMMARY KEYWORDS

thunderbirds, flying, blaze, thunderbird, air force, jv, team, fighter pilot, maneuver, jet, people, slick, airshow, fighter squadrons, heather, demonstration, air, commander, diamond, weapons

## SPEAKERS

JV Venable, Heather "Lucky" Penney, John "Slick" Baum, Caroline "Blaze" Jensen

---

### J John "Slick" Baum 00:01

Welcome to the Aerospace Advantage podcast. I'm your host, John "Slick" Baum. Here on the Aerospace Advantage, we speak with leaders in the DOD, industry and other subject matter experts to explore the intersection of strategy, operational concepts, technology and policy when it comes to air and space power. So if you like learning about aerospace power, you are in the right place. To our regular listeners, welcome back. And if it's your first time here, thank you so much for joining us. As a reminder, if you like what you're hearing today, do us a favor and follow our show. Please give us a like and leave a comment so that we can keep charting the trajectories that matter to you most. Now this week, we are going to do a deep dive into the background of what it's like to be a Thunderbird. There's been a lot of questions that I've received about what it was like to be on the team. And I'm going to turn it over to Heather Penny so that I can actually get interviewed for once on the podcast and let Heather take the stick, and we've got some folks joining us. So Heather, over to you.

### H Heather "Lucky" Penney 00:57

Slick, thank you so much. As a matter of fact, I am super excited to be your stunt pilot for this episode. Here with us today. We've got JV Venable.

### J JV Venable 01:05

Heather, it's great to be with you. Thanks for having me.

### H Heather "Lucky" Penney 01:07

Oh, we're so happy you're here. And one of my dear friends, Caroline "Blaze" Jensen.

C Caroline "Blaze" Jensen 01:12

Thank you Lucky. I'm happy to be here and be a part of this conversation.

H Heather "Lucky" Penney 01:15

Super excited to have you here too. JV as you, as our audience may know, is from the Heritage Foundation, does think tank-y stuff like us, and Blaze recently retired from the Air Force and she's now doing defense contracting on her side as well. But more than that, y'all were cool Thunderbirds, which is, I mean, that's pretty awesome. But before we get into that part, starting with your experiences on the team, I got to ask you guys, what was your first memory of the Thunderbirds? Not as a team member, but like when you were a little kid. and what does that memory invoke in you all?

J JV Venable 01:49

Well, Heather, I can start it off. My first memory of the Thunderbirds actually wasn't an air show. But I was enamored with, with the team through pictures. And in 1969, I was 10 years old and we got the World Book Encyclopedia. And I flipped it right to the section of the Air Force. And there were four F-100s painted red, white and blue, and they were the Thunderbirds. And I pointed at the lead jet and said that's what I wanted to do. In 1981 I saw them for the first time. And that was as I was graduating from college with a commission and heading toward flight school. And it was the last season of the Thunderbirds when they were flying the T-38. And the team that I saw was the one that ended up having the tragedy at the end of that season. So it made me long that much more to be part of them.

H Heather "Lucky" Penney 02:38

Wow, that's amazing. So Slick, Blaze, what were your thoughts?

J John "Slick" Baum 02:42

Well, you know, I actually did get to see the Thunderbirds in person. And it was it was not a normal part of my childhood. I grew up in New York. And you know, there's no Air Force bases and fighter jets and things like that readily available. But my uncle was a senior master sergeant, and I went to visit my cousins down at Randolph Air Force Base, and it happened to just be a weekend where a few gray Vipers came through on a fuel stop. And then the Thunderbirds came through for the air show. And for me, honestly, it was a neat thing. I was blown away, but nothing I thought I would ever be able to do in my life or as a career. And so just the opportunity, A., to serve. You know, I enlisted in the Air Force when I was 17 to get money for school and just start my own life adventure. And to then turn around and you know, through happenstance with my story, how I joined the team, you know, just truly truly blows me away that I had the opportunity to be part of it.

H

Heather "Lucky" Penney 03:39

Blaze, what about you? What's your first memory of the Thunderbirds?

C

Caroline "Blaze" Jensen 03:42

When Top Gun came out, and I went to my liaison officer for the Air Force Academy and he told me that women were not legally allowed to fly in fighters. And it was a couple of years later that I saw the Thunderbirds fly in Eau Claire, Wisconsin. And I remember that distinctly. And I knew that that's what I wanted to do with all my heart. And so my father encouraged me to continue to work towards all the qualifications to be a fighter pilot, to be an officer in the Air Force, and in hopes that the rules would change and in 1993 they did. So I never really went into the Air Force wanting to be a Thunderbird. But I was really fortunate that that's the way that it happened.

H

Heather "Lucky" Penney 04:24

Yeah. Wow. You know, so Blaze you and I, we were both in that generation where when we first were thinking about being in the Air Force and what we wanted to do, we weren't allowed to be to be fighter pilots. So JV, I know that being a Thunderbird was your professional goal. But Slick and Blaze, once you got into the F-16, once you once you became fighter qualified, was that top of mind? Or how did that happen?

J

John "Slick" Baum 04:47

Well, I'll be honest for me, that I had a guy in Orlando, and I made it to ROTC and that's, you know, he's like, oh, I want to be a fighter pilot so I can be a Thunderbird. And I think because I had the enlisted experience and you know, I worked on fighter jets and, and that type of thing, you know, as as that. You don't go into the Air Force to be a Thunderbird, right. I mean, the Air Force is made up of, you know, fighting professionals, and the Thunderbirds have the mission that folks get selected to do. So I never really thought about it other than like, hey, it would be a neat thing. And for me, you know, I was lucky to be on the weapons school track. And, you know, I've said a couple of times jokingly, but I think my contemporaries would kind of agree, you know, if you're really into, you know, breaking bad guys' stuff and killing the bad guys. I used the music analogy of like, you know, being a fighter pilot and then going to weapons school and being an instructor at the Weapons School. If it was music, you're like the, you know, the guitar player in Metallica, right, you're Kurt Hammett. And you're, you know, get explosions on stage. And it's awesome. And, you know, being a Thunderbird's like being a Backstreet Boy, you know, it's still music, but it's different. And I say it lovingly and jokingly, because, and that was an internal Air Force view, right, as we're kind of getting raw a little bit of, of what it's like, where, you know, you're not doing the warfighting job every day, but you're representing those folks. So I think I very much had the CGO mentality, thinking about it. And at the end of my first, my first assignment in the triple nickel, I was off to Weapons School. And we did have a Viper demo guy in the squadron. Now, of course, I thought, you know, air shows were amazing. And that type of flying was great. I just thought career path, like, you know, there was a big Y in the road. And I chose the Weapons School route. And there's just, you just

don't do that if you're a weapons officer was kind of the go in and game plan. So obviously, things changed for me, but that was one of those things. Oh, my gosh, I would love to do it. There's just no way that I could turn my career vector to go be a Thunderbird.

**H** Heather "Lucky" Penney 06:42

Well, so JV, I'm gonna sort of shift our conversation here a little bit to talk about selection, because how does that even happen? What are, what are the attributes that the team is looking for in Thunderbird pilots? And what does it take to make the team?

**J** JV Venable 06:56

Heather, I think the first thing we were looking for was a genuine nature of folks, people who liked to be around people and wanted to be part of something bigger than themselves. The thing that we avoided was folks who were on a career path that this was just the next rung in their ladder, and they wanted this as a feather in their cap to continue that upward trajectory. And we did a pretty good job of selecting our folks and the team gelled really well. I've always said that, when you're building a team, whether it's a team full of satanic worshippers, or Holy Rollers, you want to hire folks that fit in, right, that are going to be part of the team, and not go against that, that fundamental nature of unity and spinning faster and tighter together. And that's what you're looking to build as a commander.

**H** Heather "Lucky" Penney 07:48

Yeah, amazing. Well, I mean, it's clear to anyone who's seen the team from the outside that you guys do a really great job of that. So I do have to ask, what's the one thing you know, kind of that an important thing too, sort of like a critical safety of flight or safety of team thing that no one told you that you had to figure out on your own? And this is, this is a question, I'm gonna open up to everybody, because I'm sure that each one of you experienced or stumbled on something you're like, Well, I wish someone had told me that.

**C** Caroline "Blaze" Jensen 08:14

Heather, I can say, I don't know if there's only one thing that you had to learn. But being in a single seat fighter, and flying with wingmen, you know that you're never alone. And that's the same thing on the Thunderbirds, except now you're with, you know, in the airshow during the demonstration, you're with five other aircraft. So that's a, I think, a big lesson to be able to lean on the other people. And I think one of the great strengths of the Thunderbirds is that we really knew each other very well, when you travel. And so you could walk in and sit down at debrief and look across the table at number two and tell that maybe he wasn't feeling well, that day maybe had something personal with his spouse that happened, or maybe he was starting to get a cold. And so that you knew that you had to rise up that day. So it was different between, you know, the highs and lows of each person of the day. And that's kind of how we, we got through. Some people would be having a great day, and some people would not be having the

best day of their life. But but you had to work that way, because you had to perform every single weekend, and you're flying three feet apart from one another. And being part of a team was really important.

**J** John "Slick" Baum 09:24

Now, and I want to, you know, answer that, Heather, because I totally agree with what Blaze just said and what JV said previously. You know, my comment about just sticking, it's something I would never be able to do because there were folks that were, you know, kind of like dead set on doing that mission. And it's just so humbling. And it's such an incredible responsibility to get selected to represent the Air Force. And, you know, we all had fighter squadron experiences, but I think the thing that folks did not prepare me for was that I was going to have the best friends of my life on this team. And you know, just really pile on to what Blaze said. And I mean, we knew each other, inside and out, so to speak. And, you know, we had the capability. And Sean Gustafson was a number four for both years that I was on the team and I was a left wing. So if you're looking, you know, for those that don't know, if you're looking at the top of the formation, you've got, obviously the lead in the front, I flew on the left side, Blaze was the right wing, so I'm talking about the person in the easiest position to fly, the slot. You know, we would come out of a maneuver, and maybe something didn't go right, you know, hitting some jet wash or something like that, or, and I would look over to Stroker. And he would have his visor down and his mask up, and he would look up at me and I knew exactly, although I couldn't see his face, I knew exactly what he was thinking, the expression on his face, because we just knew each other so well. And, and I, I don't think you're prepared for that. I know, there's been a lot of discussion with Top Gun 2 coming out and all this stuff about you know, hey, well, fighter squadrons really aren't like that. But I was in some pretty rough and tumble fighter squadrons, where, you know, although it wasn't, you know, the Hangman, you know, scene in the O-club, like that guy would be kicked right out of your squadron. But there were still some pretty tough, you know, rivalries and competition for who's going to be in the next upgrade and who's winning the next you know, bombing competition and stuff like that, and to just mature as a squadron to that next level? I mean, I tell you that the bond that we had on the Thunderbirds, I would love to go to war in that six-ship, because you talk about capability with that teamwork that JV was talking about. I mean, unbelievable. unparalleled.

**H** Heather "Lucky" Penney 11:29

Wow. Yeah. So Blaze and Slick, you both talked about some of the different positions. JV, can you actually explain for everyone what those positions are? And what they do and how they're a little bit different? Like, what does the lead do? What does left wing do? What does the solo do?

**J** JV Venable 11:44

Yeah, Heather, that's a big question, because if you tried to divide it up, there's so many different roles that each individual has on a team, on the ground and in the air. But as far as the demonstration goes, there's two big moving pieces, you can divide that actually into three at times. One is the diamond, which maneuvers generally as a whole, all the way through the bomb burst. And then the the other two, one or two, are the solos, and they act together, and

then they will split apart and actually become two other entities in the airspace. And so the weaving and bobbing, the timing for each of the maneuvers, and the pace at which the air, the whole airshow is flown is actually led by the demeanor and the day that the commander is having. If he's having a bad day, the timing of the maneuvers kind of space out a little bit. If he's having a good day, and everyone else is firing together, then you start actually compressing the distance in between the maneuvers. But I, you know, I have an analogy about leaders. And that's kind of like people talk about churches, a church is led by the pastor, and the pastor kind of follows, the church actually follows the demeanor and the engagement level of the pastor. And if you have a boss who is engaged and who is fired up and loves this team, and then wants to go out and carry that dynamic out to the public, then you're gonna get that. If you have a team that's more involved with the airshow circuit, and wants to be part of that, that's what you're going to see out of it. But by and large that comes out of the team leader. So one, you've got the diamond, and then you've got these two really important other entities out there that are flying pretty aggressively. Inside the diamond, you've got some checks and balances that are done. So the commander announces every maneuver, and he actually tells the team what he's going to do before he's going to do it. So before he moves the throttle or he turns the stick in one direction or another, he says the left turn, and then he initiates that left turn. And when he calls a maneuver, the wingman on his left, which is the number two man, will actually echo that and confirm that. And when he says coming left for the diamond roll, Two. That's confirmation. But if it's the wrong maneuver that the boss calls, Maneuver, right maneuver of number two, exactly. And so this whole thing, you think it's flawless and you think that it's something that we practice, but when I was flying the demonstration, we had 36 different maneuvers in the high show and the opportunity to make a comm error, just one or two or ten in that process was ginormous because the leader is talking all the time and thinking and then there's the opportunity to miss things. And so there were very many times when you're supposed to do math as the leader and as the wingman, and I would be on top for a maneuver on on top of a loop, and now let's say, ones on top 2500 feet, which means we were all going to die, right? I had done bad math with the, with my subtraction of our elevation above the ground to the MSL altitude that we're reading off of our instruments. And so those checks and balances were done both in the flying demonstration and in a really other key individual, which was number seven, our operations officer on the ground. And he was the the eyeball of safety, the mother hen, if you were and he can call us all to stop the maneuvering and land our jets if he needed to. The commander always bequeathed that hammer to him as soon as he took the runway. So really a fascinating organism, if you will, and how the team developed that over the 50 years prior to me coming on the team. And when, when these two were on, Blaze and Slick, it's just amazing how it just continues to get better and better over the years. And that's one of the most impressive things I've took away from.

H

Heather "Lucky" Penney 16:08

Wow, I mean, the way that you're working together as a team that clearly takes a lot of training. And thinking about you JV, you know, talking and doing this math while you're pulling Gs, that's really demanding and physically and mentally. So slick, you know, how did you make sure that you were full up every day, either in training or once you were on the road? I mean, you're basically not just the public relations face of the Air Force, and then also flying I mean, really complex aircraft with with heavy Gs on it, you're you're kind of like a pro athlete. What did you do?



... "Slick" ... 16:10

**J** Jonn "Slick" Baum 16:40

Yeah, it's a great point. And, you know, I was just gonna add that I had a bit of a different experience, you know, I had expressed interest in the team again, I thought it would never be in the cards. I'm like, Oh, if I tell my commander I want to be a Thunderbird while I'm an active instructor at the weapons school, you know, I'm gonna be taking out the trash every day, and shunned and never get to do anything cool for the rest of my career. But, you know, I did express interest, and I got to join the team, mid training season, when, you know, one of the other applicants was not having a good time in training. So I showed up and started flying January 5, in the training season. So I was flying three times a day. And you know, there's certain nuance things that we do talk about, you know, when we do interviews and things like that, so one of the things with the Thunderbirds is you fly with full nose down trim. And in the F-16, you know, with the fly-by-wire system, when you let go of the stick, you know, the airplane is seeking one G. If you have full nose down trim and you let go of the stick, it's you know, it's wanting to go downhill really fast as it's catching up to seek that one G. So to hold the jet straight and level is like holding 25 pounds of pressure on the stick. So I was flying three times a day to catch up in the training season. And it was massively physically demanding. And I think, you know, most fighter pilots in general, you know, like to work out. And if they don't like to work out, they probably get shamed into working out. But, because you just need to be in that high-G environment, you need to be in shape. But you know, one of the demanding things that you mentioned was, you know, for me flying three times a day, I had a lot of nerve damage actually in, on the right, my right side, starting essentially behind my right ear, going all the way down my neck, my trap through my shoulder, arm all the way into my wrist just from flying three times a day. So you know, I was actually going to a lot of therapy and acupuncture and all that type of stuff. And so you're, you know, although you feel like you're physically fit, and then you're flying you, you know, I'm a fighter pilot, all we have to do is fly formation, no big deal. And now you're getting your butt kicked, not from a tactical scenario. But it's from a pace scenario. I mean, you're up early, you're flying multiple times a day, and you're always on. So you have this physical demand that's new to you. And then, like you have said before, you know, you guys are polished, and you're Teflon and everything's perfect, but you're still a human being. So your body is physically getting beat up, you're not sleeping a lot, you're traveling like crazy, and you're always in a good mood, which you know, from a mental standpoint is not probably normal. And so you're just really going through this roller coaster until you kind of get it. And I think, you know, as Blaze mentioned earlier, you know how we made our best friends, all that kind of stuff. Nobody really prepares you through this, you kind of learn that as your team building and team bonding. And, you know, we can go into other stuff, you know, later, I'm sure we'll talk about, you know, the little things like packing, you know, how do you prepare yourself to be gone every single weekend and home for like 36 hours, which is enough time to, you know, do your laundry and pack again and just learn what works in that system for you. So there's a lot to it. But you're right, I mean, you're doing essentially a pro athletes job and you know, you're a full time PR person as well.

**H** Heather "Lucky" Penney 19:45

That's amazing. And I can't even imagine doing three goes a day. Blaze, was that normal for your training pace as you're building up to the airshow season?

**C** Caroline "Blaze" Jensen 19:52

I got to make it through the training season. So we were twice a day every day. And I



remember going to a commander's call for the wing commander at Nellis, and I was exhausted and about to complain about how much I was flying and there was a DO from an F-22 Squadron, who told me he had flown three times in the last month. I was like, Alright, I will shut up because my problem of flying 40 times in a month is nothing compared to only flying two or three times. But it was it was very hard. And I was set up for it, to know what was going to happen by other alumni who said that they flew, and they came home, and they laid on the couch, and their spouse like fed them, and took them out of their flight suit and washed it for them and helped the kids go to bed and the next morning they woke them up when it was time to go to work and it's just so demanding physically and mentally, just like Slick said. So that was something that I expected. But it's completely different when you have to experience all of that, but it was great. And our boss was a Weapons School graduate, and Slick can talk about this too, and he said, you know, this was twice as hard as going through Weapons School just because of the mental and physical requirements and the pace of the of the training that you have to go through every day.

H

Heather "Lucky" Penney 21:11

That's something I would not have expected to hear. Sorry, JV?

J

JV Venable 21:15

Yeah, Blaze. I love that description. There was one week, so your first season you fly along with an instructor or a shepherd, if you will. And you get taught the demonstration. The second season, you are the instructor coming in for the other students. So I didn't have a number one to train my second season. But I had new wingmen and then new solos to train. And so I had one week where I flew 18 sorties, which is three times a day. I think many many of those days plus one or two days that I flew extra on Saturday. And we were trying to change the air show to compress it down. We were gonna get back that diamond take off. There was a whole lot to it. But I gotta tell you, there was four or five times in that week when I was on the third sortie, and we were out over Indian Springs. And I knocked everything off and said, Guys, I'm full, I gotta go home. And I took the team home because everything depended on me, and they couldn't go on, me leave them in the area and then continuing practice. So I know it was disappointing for them. But boy howdy. When you know you're at your limit, you got to call it and we did. So exhaustion is a big part of it. I will add something else to something that Slick said. ,I you know, I went to Fighter Weapons School, I loved living that life on the other side. But the flying that we did in the Thunderbirds, there were days when it was more demanding, just a single sortie than anything else I ever did. And I loved that about it, I loved the whole thing, about flying to the highest ends of your skill sets. And then when you land, you can't just sit back and throw off your flight suit and say I want a beer. You're gonna go into your next engagement and you're going to be a representative of the Air Force. And I just love that continuous operating at the highest end of your spectrum demand.

C

Caroline "Blaze" Jensen 23:14

Slick mentioned it and JV too. Like, there's a little bit of a stigma about being a Thunderbird, and you're just the show pony and you're doing loops to music. And I think when I had all of the combat commanders from the Weapons School, the commandant of the Weapons School flying



my back, my back seat, and these big strong fighter pilots would make these noises when they saw the rejoined to the bom burst, and they saw a trail formation, all these things that we did, and it's real. And that's why the Thunderbirds try to get as many other fighter pilots into the cockpit as possible. So you can see that it's a very definite skill. And it takes a lot of concentration and a lot of guts and grit to get through it.

**H** Heather "Lucky" Penney 23:55

Yeah, absolutely. I mean, you guys are are operating those jets at the edge of their performance envelopes. And frankly, you're operating yourselves at the edge of those performance envelopes. And then when you step out of the cockpit, you're the face of the Air Force to the American public and the international world. So you've got to meet a lot of people as you're on the road, because you're on the road for what 11 months out of the year? When you add that up, it's a long time. And in between sorties JV said, you said, you step out, you go do a public engagement. You must have a tremendous impact on the people that you meet and and talk with. But let's flip that. Who did you meet during your time as a Thunderbird that was most impactful to you?

**C** Caroline "Blaze" Jensen 24:38

Okay, I have this great story. And it was a huge life lesson. I was up in Washington state at an airshow. I was walking back from a tent and visiting, I'm from Wisconsin, but I had some friends that were living in Washington state and was visiting those high school friends, and this lady came up to me, and I was kind of in a hurry and she was like really excited to meet me and it was hot out. And she just wanted to give me this big hug. And I really wanted to go on, and get to breathe and kind of fence in for us during the afternoon. And in the back of my mind, I was like, I need to stop and talk to this woman. Come to find out that she was at the airshow in Reno, when that P-51. crashed, and she's an ER doctor, and she saved all these lives. And she told me about how she was sitting next to one of her best friends. They got knocked over and she looked at him and his arm was missing. And, you know, I just if I had gone on, and kind of like, that initial tiny little like, I need to go and do what I need to do, then I would have missed this amazing experience with this wonderful woman who made a huge impact on the airshow community and saved people's lives. And so there were a number of incidents like that, that were really important. But that was a big one, where you just have to really take time, it costs nothing to be nice to people and just hear their stories and share yours. But just really more than sharing yours. Listen. And I think that was one of the biggest gifts that I got off the Thunderbirds.

**J** John "Slick" Baum 26:06

You know, I'm glad I had time to think about it. And I have to, you know, echo what Blaze just said. I mean, I got to meet President Obama, Michelle Obama, Vice President at the time, Biden, Jill Biden, other, you know, princes of, you know, we did a Far East tour, you know, presidents of other countries. Dignitaries, I met Nick Levin, from what was that movie, Superbad. Charles Barkley, I mean, all of these stars. But really, the best people that I met were the kids. And, you know, going back to one of the comments that you and Blaze were talking about, you know, we talked about representation all the time. And so many times, you know,

we and I always laugh, and this is the humbling side of it, you know, we're trying to share on the podcast is like, we did autographs after the show, and I'm just like, nobody wants my autograph. They don't know who I am, right? They know the Thunderbird uniform. And they might know through the pamphlet, you know, that, hey, I happen to be flying, you know, the number two position for these couple of years. But we'd always engage with families. And it was great. And, you know, again, in my mind, it wasn't like imposter syndrome. It was just, you know, I was just kind of laughing at myself, like, God, I can't believe I'm giving autographs for like, an hour and a half, a couple times a week. It's just crazy. But we always have the opportunity to engage with these families. And, you know, every autograph session that's happening here, they'd be like this typical American family of four. And you know, mother, father, son, daughter, and you know, the parents are like, nudging the little boy like get up there. You know, Jimmy, get his get his autograph. You know, and, you sign autographs for Jimmy and hey, you know, what you think of the show? Was it super cool, was it loud, you know, did they scare you on the sneak pass, you know, wasn't the diamond awesome, right? And all of our little quippy things and, you know, then you look down, there'd be like a little girl like, you know, kicking a rock looking at her shoe. And I'm like, you know, Hey, how'd you like, you know, you kneel down and get down at the level of like, you know, the five year old and say, like, what do you think of the show? And it would be like, the mother would be like, Oh, don't worry about her, you know, she can't fly airplanes. And you're like, ugh! I'm like, No, did you like flying? You know, did you like watching this? You want to fly jets? And you know, all of a sudden, this little face lights up. And you know, oh, yeah, I loved it. You know, I'm like, you can be a fighter pilot, if you want to, and this you know, have this little girl look up and be like, really? You can? And I'd be like, Yeah, my friend Kristen. For those that know, Kristen Hubbard, you know, one of my favorite people in the world, like my friend Kristen flies, the F-16, too. And I, you know, go hey, let's go get Kristen down on the line, you know, have her come over and, you know, have Kristen engage. And I think those were like the real people, real, real moments. I mean, I thought it was unbelievable, you know, personal here, I got to meet Kelly Slater. You know, I'm a surfer and I, you know, get to hang out with him and his brother, and they made Thunderbird surfboards and all this this cool stuff for us. But to me that, you know, echoing what Blaze said, I mean, that was the engagement opportunities that were just absolutely incredible.

 Caroline "Blaze" Jensen 28:58

I love that you said that Slick, too, because I got a lot of attention for being a female, and a lot of people would come up to me and even though we'd already had Nicole Malik, Husky, and Samantha Weeks, and Mother Hubbard, people like, Oh, you're the first woman. I was like, No, I'm not. And they made this big deal about being a woman on the team and how great it was for kids. But I'm a boy mom, my son's 13 years old now. He was potty training when I was on the team. And to me, it meant a lot to show him how to not limit women in his life. Right? So even though, you know, he can, he had all these goals, but the women that come into his life, he will never tell them, they can't be something. And that was really important to me. So I love that you said that. I used to always love to, on the, on the autograph line, which I thought was really weird, and like anybody but me could be here right now and they wouldn't know the difference. But my favorite interaction, that was only one time, this mom pulled up her daughter and she's like, Hey, look, a woman pilot! There's a woman pilot here! And the daughter was like, I know Mom, like women can be pilots, duh. And I was like, thank goodness like things are finally changing, where it's not such an amazing, spectacular thing to be a woman pilot. So it was really fun to be a part of that change and be a part of that image and that shift in the paradigm for society.

H

Heather "Lucky" Penney 30:14

Well, so Blaze now that you mentioned that, you know, the Blue Angels are getting their very first female pilot, Amanda Lee. What kind of mentorship or advice would you give her from your experience?

C

Caroline "Blaze" Jensen 30:24

Yeah, so Amanda Lee, Stalin's her callsign. She's a phenomenal human being. I don't I've read some of the articles about her. But what people don't realize is that she actually was a crew chief on the F-18 prior to becoming a Blue Angel. Now she has this great head on her shoulders. And a lot of times I would get asked by people, how come the Blue Angels haven't had a female pilot on their team flying in the demonstration? And you know, the demonstration thing, there's a lot of things that have to align for you. You have to be at the right place in your career, in the right place with your family and have the desire to do so. And all the right qualifications. And the pool of women is very small, and it's even smaller in the Navy. So I think that's why it's been so long to take them to get a woman who's ready and able and the right fit for the team. But she's just she's really fantastic. I think she's got a great head on her shoulders. She's been talking to me and some of the other women Thunderbirds, and I really think she's going to do amazing things.

H

Heather "Lucky" Penney 31:25

Yeah, absolutely. I'm going to shift the conversation a little bit, JV because you had actually mentioned in the first part of the episode, the real tragedy with the T-38 Thunderbirds. You guys are executing high performance, high precision maneuvers and all sorts of different airfields in different weathers and environments. So how do you avoid, and you mentioned some of this, again, with the public math and the call outs and the checkpoints. How do you adapt the show to the unique geometry and weather of each location?

J

JV Venable 31:57

Well, it's it's a great question. The dynamics associated with a regular demonstration on you know, a sea level demonstration, clear day, no wind, it's a relatively easy thing to do. You train for it. As long as your body's up to speed, you got a good night's sleep, everybody's going to fire well together. But that's rarely the case. Almost always, you're either at a density altitude where the airplane doesn't perform as well. If you go up to Mountain Home, or do a show at Colorado Springs, where the density altitude is, is actually up around six or seven thousand feet, now you're talking about motors that don't throw up, throw out enough thrust to where you can do all of the things that you want to do as quickly as you do. So it takes more time to get airspeed and the likes. Wind and weather come into play in a big way. And so when you have these beautiful puffy clouds that you see, and, and in July, as they start to build into these thunderstorms, they're always at the wrong altitudes, around 4500 feet when they start. And that's right at the point where if you start to do a loop, you're gonna fly right through it. And that's really not a good thing if you're flying on the wing, or if you're leading those folks through

it. I'll give you a real quick example of how things can change and how they can get you in trouble. My first air show ever after our certification was at MacDill Air Force Base, and it was that perfect day. And so that's 78 degrees outside, no wind. And I knew that things were going to fire on all cylinders. When we kicked off the air show came around for our first maneuver. And as I'm setting up for a loop, if you will, a clover loop. A layer of clouds just popped, it just went solid for about 500 feet right over show centered it just, and then it went from just as quickly, it went away. And I go what do you do with that Mr. Genius flight lead. And so we just continued to call it out, is the is the show line clear? And seven said, boss show line's clear. And then we would come in and do a new version that lasted all the way up to the bomb burst. And I got at the pull point when the bomb burst and the show line was clear. And I start this pull, which takes maybe five seconds. And as I get to the release point, poof, that thing goes solid and I have no choice but to release everyone into this, this cloud deck. And sure enough, everybody gets through it they roll and as soon as they're done rolling the weather clears but on the tape the four star general, commander of ACC reviews my first air show. I fly everyone into a solid overcast. And you might imagine, that did not bode well So things change and you have to play the game that you're given as best as you can.

H

Heather "Lucky" Penney 34:54

You know what's amazing to me is that, you know, as you guys go to each airshow, it's not only just the weather that's changing, you're having to adapt to the different geography or the mountains here, is there a city there, where the deadlines, but you're adapting that dynamically. I mean, there's some level that you can plan that out ahead of time because you go reconnoiter the airfield and see where you can and cannot fly, and you can measure the performance of the aircraft. But JV, what I'm hearing from you is a lot, it's not rinse and repeat. You're having to dynamically adapt and adjust your show as you go. And you have to do that safely. That's just amazing to me.

J

John "Slick" Baum 35:32

Heather, you guys mind if I hop in for a quick story on that, because, you know, usually left and right is pretty clear. And then, you know, for the diamond folks talking here, obviously when we do the bomb burst is when we finally go, take a little break. And I think three, you know, always went behind the line for the high bomb burst. And then you know, two was going, when you're looking at it from show center, or out towards show center. And I know that three, you definitely had some challenges, but I had one, because after we do the cross for the bomb burst, now I'm behind the line, and we were operating at the Chicago Air and Water Show. So you talk about fun flying and this is again, stuff that trying to talk about things that you don't hear, you know, that's like a license to steal. You want to fly between skyscrapers, go to Chicago during the Thunderbirds, it's amazing. So we had been doing a high show and after the the cross, you know, we're, for me, I was, you know, basically pulling up to the right of the show. And getting ready for the rejoin, which is absolutely crazy aggressive, this rejoin, so I won't get into details on that. But to boss's point, all of a sudden, we go hey, setting up for a low show when we were already executing a high show, because the weather started rolling in. Well, the cool thing that I was doing after this cross is I was basically, you know, turning around the Hansen building, this big giant skyscraper, which is again, the license to steal, which is super cool to do. But now, I can't see the top of the building. And I can't see through the building. We do the cross for the low bomb burst. And I'm looking over my shoulder, I'm twisted

in the seat as we do in the F-16. So I'm looking over my left shoulder and my whole body is twisted. And I look, you know, I'm looking over my left shoulder. I look out through the HUD really quick. And there's a giant building that I cannot go around. So I you know, 90 degrees of bank, squat the jet 9.4 G's, and I popped a rib out of my back. I mean, first time I'm physically injured in the airplane. Now having executed a rejoin in front of a couple, a hundred thousand people in Chicago, and it was to the point where I'm like, Okay, do I knock this off, but I really just need to rejoin with everybody else. And the pain was so bad with this rib that popped out. I could only breathe in about a third of the way. So I'm like trying to talk on the radio as we do, through the rejoin I'm like Two, you know, One in sight, your kind of gasping for air. And you know, we execute the rejoin, there's no reason to knock it off for the show. We did on the way back landing. And then I had, you know, four crew chiefs climb up ladders on both sides, physically had to pull me out of the airplane. So that changing dynamic and how you keep the show going as well, you know, from the wingman side of the house, I mean, it's all on the boss to make sure we're safe. And then based on those calls, you know, it doesn't stop there. So I just wanted to add a bit of a fun flying story how it affects us.

**H** Heather "Lucky" Penney 38:22

Oh man. I don't know how you did that. So you're a Thunderbird for two years. And then you go back to operations. What was that adjustment like for you all?

**C** Caroline "Blaze" Jensen 38:34

So Lucky, I was actually a Thunderbird for three years, just like the team that left was. I was on for three years because of sequestration in 2013. And then COVID created the same kind of situation for the team that just left. But I went from the Thunderbirds into the Senate, and that was a legislative liaison fellow. And it was a great job. And it was wonderful to take all the skills that I learned and all the constituents that I had met over my three years on the team and be able to help my senator, to interact with his people there and let them know how important it was for the Thunderbird missions. So in 2013, we were sat down because that Air Combat Command went to tiered readiness. And that meant a third of the fighter squadrons were deployed downrange, a third were in training and the third were grounded. And the ACC commander at the time said I can't let a demonstration team fly if I have combat fighter squadrons deployed, or not deployed, but it's sitting down. So it was it was really hard. And I think in, when you look at how our Air Force and our military is less than 1% of people who serve, and that we're an all volunteer force, that the mission of the Thunderbirds is every bit as important as being in combat or training to go to combat. So I've really felt like my my mission and my job after the team was important because it was a lot of liaison work with the Congress.

**H** Heather "Lucky" Penney 40:06

JV, what did you do after the Thunderbirds?

**J** JV Venable 40:09

They made the mistake of sending me to War College. And so I was a professional student for a year I came to the Pentagon for about six months and then got tagged to command the largest

year I came to the Pentagon for about six months and then got tagged to command the largest expeditionary operations group in the United States Air Force at the time it was at al-Udeid. So I got to fly combat sorties for a full year, logged about 350 hours over Iraq, and I just loved it. And getting back into that, that bread and butter of being a fighter pilot again, was one of the greatest gifts that I could have been given.

**H** Heather "Lucky" Penney 40:41

Yeah, you bet. Slick, what about you? What did you do after the Thunderbirds?

**J** John "Slick" Baum 40:44

Well, I was just gonna make a quick side note, JV, you were the commander when I was here deployed with it with the Triple Nickels. So we were, you know, over there doing the mission together. So it was great, great serving under your leadership, but not on the team. But post-team for you. You know, I was really lucky, Heather. I, you know, we were so short-manned at the Weapons School that, I know, I didn't really have like a true like negotiating, you know, point with the Air Force. But when I went over there in the 57th wing commander at the time, Job Handy, was was awesome. He's like, hey, you know, if you can do this, it'd be great. And, you know, I said, Well, sir, you know, I don't want to let the Weapons School down. So if it's okay with you, I want to keep my security clearance and swipe access to the vault. And I want to stay in the letter of Exes. So I can help out, you know, when I can. And they did let me fly. So I got to go back to the Weapons School, because I kept my currency, my mission check and everything like that. So I did that. And I was the 57th wing SIFI for a while, but then I had to leave the jet. And it was time to go do a strategic communication fellowship under the fellows program in DC, so I got to get a master's in strategic communication, and then work for the Secretary of the Air Force doing STRATCOM.

**H** Heather "Lucky" Penney 41:51

Yeah, no. It's like, that's how we got to meet you. So, so it just goes to show there's a little bit of reasoning to the madness. Now, I know you guys get all the limelight and you're signing all the autographs. But we would be remiss if we didn't acknowledge all the other people that that make the team happen and everything that we do. Because as the Air Force writ large, you know, the Thunderbirds is kind of like a microcosm of our operations. And we don't get distraught by strapping the jet and then go drop bombs and hurt bad guys and execute the mission if it weren't for everyone else back at base that's making that happen. So we're getting close to the end. And I want to thank you guys, because this has been so much fun. But before I let you go, I want to ask each one of you one last question. What's your favorite memory of being on the team?

**C** Caroline "Blaze" Jensen 42:34

I have a good one. My memory on the team was flying at Oshkosh 2014, and obviously that's coming up next week. I am a Wisconsin girl born and raised and being back home in my home state and flying at the biggest airshow in the United States was absolutely awesome. And that was only second in comparison to flying over the Air Force Academy too, for the first time,

except for combat. Combat was pretty awesome. So probably combat number one. Thunderbirds over the Academy number two, and then flying over the great state of Wisconsin at Oshkosh was a really memorable experience. And you know, people love the military. I've run into people who don't necessarily agree with military and war and those kinds of politics, but they still love the Thunderbirds. So it's really great to be a part of a team that can bring everything together.

H

Heather "Lucky" Penney 43:26

Yeah. Well, I'll see you next week at at Oshkosh and Slick, I'll see you there too. And I know that the crowds always love you. So Slick, what's your favorite memory of being on the team?

J

John "Slick" Baum 43:35

Yeah, I, I think it was, it was the opportunity, we did a six week Asia tour while I was on the team. And, you know, there's a lot of, you know, behind the scenes, you know, stuff that went on with that the logistics, you know, going from Nellis to Hawaii, and then Hawaii to Australia, you know, the eighteen refuelings and all of that. But, you know, for me, I think it was doing three stops, you know, in Japan over about a week, and to just see the international power that the Thunderbirds have because you know, here we are, of course we have the engagement with communities that we talked about in America, but when you're flying a red, white and blue jet in another country, and especially considering you know, our war past with Japan and then now the strong ally friendship that we have with them, and just enjoying that with their, their fighter squadron. You know, the camaraderie that to me was just one of the biggest takeaways to say man, I'm just really part of a cool time in history and a way to represent my country and the flying community and airpower and all of those things. You know, standing there in a ridiculously tight flight suit next your red, white, and blue jet. It just could not have been the coolest, coolest thing you know, that we had done, amongst the other thousands of cool things, but to me, just to be there, it was incredible.

H

Heather "Lucky" Penney 44:58

JV, over to you.

J

JV Venable 45:01

Well, thank you, Heather, I thoroughly enjoyed those memories you two, thank you for sharing them with us. Mine is a little bit more selfish, if you will. It was a specific airshow. And as the team graduates from its first show of the year, when you get the combat blessing you, you actually are a toddler, if you will, When you go out, you're, you're just able to walk, not quite, your're a little bit better than that. But over the course of the season, you just get better and better and better. And the team starts understanding each other well enough, and the trust goes way, way up if everything's done right. It was the fall of my second season in 2001. 2000, we had gone to Andrews and hadn't turned a wheel during the weekend, it was completely weathered out. But the following year, it looked like the same thing. And we were basically weathered out the first day, whetered out the second day, Friday and Saturday. And then



Sunday, the weather washed out everybody, except it looked like it was going to break for our demonstration. And we took the jets out to the end of the runway and it was absolutely going to be a flat show. The ceiling was about 2000 feet and, and flat shows, while they're not very aesthetically pleasing to folks, there's a lot of noise, there's a lot of formation, but there's no real rolling maneuvers of the of the diamond and delta and nothing over the top, but the clouds started to break. And as I took the runway with the team, I actually saw a hole that I could climb up through and I took the team up through it. And I said taking off for the high show. And then you hear this very large pregnant pause. And and then you go 2, 3, 4, 5, 6, 7, and took up and I climbed up through this and and it was going to work. But it was going to be a demonstration where all of the rules were gone. Meaning there was no ground path that was going to work for the delta or the diamond anymore. Our repositions were very vertical at the time, we get to 70 degrees nose high on, on the after following the diamond and the delta rolls and in the loop, just just crazy, beautiful maneuvering. Well, the clouds were still everywhere. And so there were times where I was repositioning and slicing the team back 120 degrees to come back to the show line. And no one on the team batted an eye. And the streaks that were coming off the jet that the little condensation is the there was always with us throughout the show. And on tape, there were times where we completely disappeared because we were flying behind clouds. But it was the most spectacular demonstration that I ever flew. And from the ground perspective, it may have been, you know, another one of those days, but from a team leader perspective to actually have the confidence of folks in your hands to where you could take them into places they knew they couldn't recover from if I messed it up. And I took them there and they stayed with me. That was a great day.

H

Heather "Lucky" Penney 48:08

That's, just listening. That gives me goosebumps because it just goes to show that how tightly the team had gelled, the trust that they had at you that you all were the top of your game, skill and performance. And I'll tell you what, in the fall of 2001 after 9/11, that kind of show is I think something we all needed. So thank you all for being here. Slick. Thank you for letting me be your stunt pilot. I'll be your wingman anytime.

J

John "Slick" Baum 48:38

No, thank you all for being here. Heather, thanks for hosting. This is a great, great opportunity to chat with these folks about something that we we love doing.

H

Heather "Lucky" Penney 48:45

Yeah, you bet, and we'll see you next week in Oshkosh.

J

JV Venable 48:48

That's great. Thank you.

J

John "Slick" Baum 48:52



JOHN CHICK BROWN 10:52

With that, I'd like to extend a big thank you to our guests for joining in today's discussion. I'd also like to extend a big thank you to our listeners for your continued support, and for tuning in to today's show. If you like what you've heard today, don't forget to hit that like button and follow or subscribe to the Aerospace Advantage. You can also leave a comment to let us know what you think about our show or areas you think we should explore further. As always, you can join in on the conversation by following the Mitchell Institute on Twitter, Instagram, Facebook or LinkedIn. And you can always find us at [mitchellaerospacepower.org](http://mitchellaerospacepower.org) Thanks again for joining us and we'll see you next time. Stay safe and check six.