### NTT IndyCar Series **News Conference**

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Jay Frye President, INDYCAR

### Andy Damerum

Commercial Development Officer, Red Bull Advanced Technologies

### Scott Dixon

Chip Ganassi Racing

### Will Power

Team Penske

THE MODERATOR: Good afternoon, and welcome to today's press conference on the first-ever test for the Aeroscreen safety innovation for INDYCAR in collaboration with Red Bull Advanced Technologies. We have some special guests today to discuss today's test. Starting to my far right, we have five-time series champion, Scott Dixon of Chip Ganassi Racing. Next to him, we have INDYCAR president Jay Frye. We have Red Bull Racing Commercial Development Officer, Andy Damerum, and next to him we have 2014 series champion Will Power of Team Penske. I'll start with an opening question. This will be for Jay and then Andy.

Watching this come to fruition today, to see it on track, this concept that was announced in May, tell us your initial thoughts about this all occurring today and what kind of feedback you've received?

JAY FRYE: Well, I think we certainly had very high expectations and probably exceeded them today already. We've run almost 600 miles to this point, and we've still got a couple more runs to go, so I think it's done everything we thought it would do and then some. Obviously we've learned a lot. Scott and Will have been phenomenal to work with. The teams have been phenomenal to work with. We've got a little work to do, but I think the foundation is really there and really set. So we're quite excited about what we've seen today.

ANDY DAMERUM: Yeah, I'd say so. It's been a great project to work on from Red Bull Advanced Technologies side with all the partners that we've been working with on this. Really proud to see the device on the car. Getting together over the last week has been I'd say relatively faultless, I'd say. Really pleased with the outcome.

Q. Take us inside the cockpit and what the differences are and what you saw today, what kind of progress you've seen, Scott, in particular from



### the simulator?

SCOTT DIXON: Yeah, obviously a big thanks to INDYCAR and Red Bull Technologies and all the other partners. I think it's been an intense project and one that I think a lot of people have done their due diligence on to get it to this point, and today has been pretty much seamless. We went through a bunch of configurations for cooling and where we can kind of push the air to control the helmet and how it feels and how much pressure you have there. Ultimately it's just very quiet. I can hear my radio for a change. Normally I can't hear that. So that's kind of nice.

But yeah, there's actually a lot less load on the helmet, too, so visually there's been really no impairment. I think some of the areas with tear-offs and stuff and where they seam in the middle will be sort of fixed kind of down the road, too, to make it even better. But ultimately I think today we've just run through a long list of projects that we needed to get through, but ultimately it's been pretty seamless.

WILL POWER: Yeah, I'm so impressed with how quickly all this came together. You know, to have the first run in and really no major issues, it's just like Scott said, the tear-offs are obviously something they're going to work on, how they fit and glare on the inside with what paint you put on and such. But the vision is fine. There's no problem doing a stint with bugs and such that get on the screen.

Yeah, it's just little things that need to be worked on that it's honestly -- I'm so happy that we have it. It's really a huge step in safety, and I think it's the best of both worlds. You've got the halo and you've got a screen, so I think that you'll see other open-wheel categories follow suit because there's just -- you think about it, when you've driven it for a day, you're going to feel naked without it. If you took it off, you'd feel pretty naked because there's not much protection there. So very happy that we're moving ahead with it.

#### Q. For Scott and for Will, are you confident enough in the product that you'd go into a race this weekend if you could?

WILL POWER: Yeah, you could race this weekend no problem. You could do that. That wouldn't be an issue. So you know, that shows how well they've -- what good of a job they've done just bolting it straight on. So that's what you get when you work with the best people in the game like Red Bull Technologies and obviously INDYCAR, as well, and all the partners involved. You

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get a product like this, which is pretty seamless, you know, straight in.

SCOTT DIXON: Yeah, totally agree. I think as we've been working on it today, there's some configurations that you could adjust, and those might be personal things, as well, but I think it's spot on. It's good to go. We'd be the only two with it. I think there's only two of them so far.

## Q. Jay, you're collecting thousands of data points here today. Is there a most important figure that you're all looking at?

JAY FRYE: No, not necessarily. I mean, I think the most important thing is if the foundation is right, and if this works, both Scott and Will said they could run it today, so that's the most important part. I think there's a lot of things we'll look at. It's almost accessories, like Scott said and Will said, that there's different things they might like that's the same, there's different things they might like that's independent of each other. So that's part of it. I think aesthetics, there's some things. What's been put on the car is basically the raw piece, so I think once the teams get it they'll be able to do different things with their liveries and how it'll blend into the car type thing, so visually I think it'll look a little different when we come back.

Again, like they've all said, the Red Bull guys have been spectacular, Dallara, PPG, our guys, you know, there's been conference calls every Tuesday with like 30 people on them since March. So there's been a huge amount of effort that's gone into this. Again, we appreciate what the Ganassi team and the Penske team have done today, to run 600 miles this morning or throughout the course of a day is a lot, and it's been a very turnkey event, turnkey test that we wanted to see, so we're really proud of that.

#### Q. Andy, you guys have obviously done a ton of simulation work on this. Do you know how many simulated miles you've done? I know you'll have to go back and look, but is it what you've expected so far?

ANDY DAMERUM: Yeah, I mean, the simulation tests that we've done so far hasn't been track simulation, it's been more on the structural design on the hoop and also on the back of the one that we did with the F1 concept that we had back in 2016.

I mean, for me today it was all about the drivers' feedback and see what their response was to the device because we knew it was going to work as far as from a structural perspective.

We've still got a few more tests to do, some rig testing, but it's all looking really good.

Q. Scott and Will, you touched on it a little already, but what was the airflow like in the cockpit adding this piece on there? SCOTT DIXON: Yeah, I think there's -- again, there's multiple different choices. You know, you had the winglets up top that I think adjusted really kind of how the helmet felt and how the air pushed down on it, back or forward, plus with the air vents at the front. I think between Will and I actually we found a pretty good comparison, and I think very similar feeling.

But again, it's just super quiet. I think compared to just having your head exposed and all that wind and all the noise, it's almost like you're in a road car driving around. It's extremely quiet. You hear the engine a lot more. It's kind of weird actually. It felt very odd.

I'd had the same likeness back when I tested it at Phoenix with the other version in the early days, but yeah, it feels odd, but it feels, as Will sort of touched on, extremely safe, and it would be very strange taking it off now.

## Q. Andy alluded to the test coming up. Can you outline the tests we have coming up and what drivers will be handling those?

JAY FRYE: Yeah, there's three more scheduled. There's one October 7 at Barber with Simon Pagenaud and Ryan Hunter-Reay. There's one at Richmond on October 15th with Scott and Josef Newgarden. There's one November 5th at Sebring with James Hinchcliffe and Sebastien Bourdais. So that's the next group of testing we have.

One thing, too, we want to for sure thank Scott. Scott has been part of this entire process. When he talked about last year at Phoenix we ran our version and then all the simulation we've done at Dallara and with the halo with our hoop with different things, so he's been a huge help getting this to where it is, so we certainly appreciate all he's done.

## Q. Did you notice more drag, and will that impact speeds, downforce? Does it change any of that at all?

SCOTT DIXON: I think it was meant to be bigger than what we expected. Actually it was smaller than what I thought it was going to be. It was almost neutral.

WILL POWER: Yeah, once you found the right configuration on top, actually the downforce and drag was pretty close.

SCOTT DIXON: If you were looking at Carb Day in this race, boost and all that kind of stuff, it's pretty similar without a tow. I think we all expected it to be a bit slower, but it was actually pretty good.

### Q. For either driver, more awkward getting into or out of the car?

WILL POWER: Probably getting out, but it was fine. It's something you'll practice a lot. You think about how many times you get in and out, you'll get good at it. I'd rather have it around my head than worry about if it's a

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struggle to get out because maybe someone will be pulling you out.

SCOTT DIXON: Yeah, I think you're going to have to get in the car a little earlier. It does take a little longer. But getting out was fine, actually. I don't know. We had a lot of cords --

WILL POWER: We need some handles put up there.

#### Q. I wanted to talk about the tires. Obviously there was speculation about the extra load that was going to be put on the front right tire. Can you confirm that the Firestones behaved as you expected? Was there any more wear shown on them?

WILL POWER: It actually makes the car more forgiving, the weight distribution, because this car, when it was built, came with two rearward weight distributions, so everyone has done all they can to move it forward, so actually puts in a pretty good window in my opinion of weight distribution, and yeah, with a few adjustments, it worked pretty well. I felt over the whole stint there was a pretty good balance. They really didn't feel that different to what we had, it's just a bit more forgiving now because you've got more weight up in front.

#### Q. Do you agree with that, Scott?

SCOTT DIXON: Yeah, I think there was a few variables. Today we had the new seal on the track. The tire dragon was here, so there was a lot of confirmations to kind of get through from that feel. But I think our long-run pace, actually we did two long runs on the '18 tire and then the '19 tire. The '19 we still felt was definitely an improvement, but the falloff was very minimal, I think within a mile an hour or two from ultimate speed to your slowest, which is kind of similar to what we saw last year when we did the tire test.

Will they bring something different for this coming 500? It's quite possible. I think they could maybe make a similar change to the right front, maybe make a little bit more road buffs. It's hard to tell a lot of times, too, when it's just yourself on a long run as opposed to being in a lot of traffic.

Q. Question for Andy, I guess, of Red Bull. Having designed the Formula 1 halo and then designing this product for INDYCAR, and given that INDYCAR races on these high-speed ovals, how does the structural strength of this device, the halo part, I guess, compared to Formula 1? Is it a stronger structure than the Formula 1, or is it similar? ANDY DAMERUM: OK, well we didn't design the F1 halo. That was done by another team. We've adopted it. However, the forces which this device or the hoop will take is 150 kilos -- 150 kilonewtons, sorry. So I think that at the moment is more than the halo, the F1 halo. I'll need to double check that. But yeah, 150 kilonewtons this will take.

#### Q. Is the key to this system the fact that you've got two different components acting as one, so in a lot of ways you have a redundancy factor built into this safety design?

ANDY DAMERUM: Absolutely. You wouldn't be able to have the personal screen as it is without that structure. I think your guys tried it with the PPG screen --

JAY FRYE: A couple times.

ANDY DAMERUM: And it will deflect.

Q. For Jay, you've had a couple different babies now. The aero kit was one, now this. You've got to be proud of both projects. How do you feel seeing this thing at this stage of its development. JAY FRYE: Well, recently, because of the amount of people that have been involved in this, like we mentioned, one thing I didn't talk about earlier was about Pankl, who does the upper hoop. It's an amazing 3D printed piece of titanium that comes in five pieces and it's welded together, and it's welding, not like what you and I think of welding. The processes that we went through are spectacular. It's quite exciting.

But to me this is a total industry-changing driver safety solution, like Andy said, it's all of it, right. So we couldn't be more proud of this. This to me is a game changer. This is big. The aero kit was obviously very cool. We got our identity back. We like the way it races, all that type of stuff, less downforce, more horsepower, that's the direction, that's all good. But I think this is something that will really change the complexion of the sport for a long time to come, so this is big.

#### Q. I wanted to ask also about whether there's a noticeable effect with a greater surface area, whether there's a noticeable effect as far as cross winds are concerned. It's quite a tall, vertical surface area, and I just wondered if you had been blown around at all.

WILL POWER: Actually, yes, I think you do feel gusts of wind a little more. We haven't had like a terribly gusty day, but I feel like it may have affected the car a bit more. It's very difficult to say. But I just kind of got that feeling a couple times with the gusts.

# Q. And have you guys run alongside each other to see if there's kind of like side draft like you get in NASCAR?

SCOTT DIXON: No, we didn't. We haven't really run side by side too much, so no, I didn't try to side draft him at all. We did like a five-lap run, swapping, just for five laps. I led first and then Will led the last five laps. We didn't do too much traffic running, but obviously that will come.

Q. Scott, when you made your debut here, 2003, the SAFER Barrier was kind of in its debut stages after being developed here at the Indianapolis

#### Motor Speedway. 16 years later here we are with the next big safety innovations for open wheel races. I wanted to get your thoughts on the role IMS has played in the development of some of these safety devices.

SCOTT DIXON: Yeah, it's definitely been a large part. I remember hitting the old concrete walls, and they weren't too fun. You know, so it's been a huge advancement, not just for INDYCAR and what they did for the sport, but it went everywhere. It helped a lot of formulas, and the safety stretch, this is just another version of it, I think one that we've been wanting to implement, but you've got to do it the right way and it's got to be the right product and the right piece and the right partners, and I think we've seen different versions. This is kind of -- I think fixes a lot of areas that maybe didn't cover everything, so yeah, I'm proud to be over that span, too. It's quite a span of years. And I think for what Will sort of commented on before, it's just that this is huge for drivers and for safety of the sport and something that will definitely push that safety boundary, I think, throughout.

Q. For the drivers, do you guys think this could prolong a driving career? You're more comfortable, want to drive longer? And also explain the cooling, how you get the moving air into the cockpit. WILL POWER: Actually, yes, I do think it would prolong a career, make you feel a little safer for sure, yeah, a lot safer. I can remember a couple of times in the last five years on a superspeedway, there had been a big crash -- actually Scott's was one of them, and I actually went like that with my arm, not that that's going to stop anything, it's going to kill you. But that's how much stuff you see flying towards your head and how lucky you really get to get through all that stuff. Any time you're on a superspeedway and there's a big crash, it's just luck really to me. It's just a matter of time until someone got caught again. So yes, having a family and all that, you probably won't think about retiring quite so soon.

What was your other question? Oh, the cooling. Yeah, that's just something -- well, there is airflow in there. Scott took out the camera weight in the nose kind of, I think that helped with some cooling, and then it's just a matter of ducting the air correctly to get the airflow. It's just something that you slowly work on.

### Q. It was a hot day and you guys weren't too uncomfortable?

WILL POWER: No, I could have raced as it was, no problem, around here. That was a good test because it's probably the toughest condition heat-wise we were going to have at this place.

Q. Jay or Andy, on the two cars there's a different component, talking about airflow, can you explain that out of the two cars, who had that, who didn't, in terms of airflow coming in?

ANDY DAMERUM: Is that the fan at the top of the

screen? I think it was tried on both cars, and we ultimately did different types, different shapes.

## Q. Can you explain to the media what that was on there for in general terms?

ANDY DAMERUM: Yeah, I mean, that's a Dallaradesigned part, and that's to aim to direct the flow of air into the driver. That's what it was about.

Q. For the drivers, INDYCAR races in the rain on road courses, and now -- and today I assumed you could wipe the visor on your helmet if you had to with the rain. With the wind screen, there's not going to be a windshield wiper. What are your thoughts there? Do you think this is going to be an issue? Will INDYCAR still be able to race in the rain?

WILL POWER: Yeah, I do. It's actually removable. Actually it had to be. They've got a heated screen for the fogging because I think that's actually worse than the water on the screen.

But Rain-X or wax, there's things you can make so it just beads off. That's something they'll have to test, but I think if it doesn't fog, it should be not bad.

SCOTT DIXON: Yeah, it's going to be -- I think the hardest situation would have been like maybe Detroit Race One this year where it was misty, but then they had re-ground the back straight, the concrete, so there was a lot of white dust, and when that got on the visor it was a bit annoying, but it'll be interesting. We race with visors, you have tear-offs. It's a similar kind of deal. We'll just have to, I think, see where that one goes.

**Q.** I guess a question for Jay, is the plan to try to test this thing in the rain before next season and make sure that there's not going to be an issue? JAY FRYE: Yeah, we'll look at that like we are trying to look at everything to go through the process. Even Tim (Baughman) is here with the AMR Safety Team. There's been talk about that. The Safety Team has been part of this entire process, too, so he's done a great job advising and guiding us as we go through this process.

Again, the Red Bull guys, one of the things I don't think we mentioned Dallara. Dallara has been a spectacular partner in this. They're so much integrated and so much part of us, a lot of times we talk about INDYCAR, we're including them. They've been a huge help through this entire process, also. At this point we don't think there's any stone that's been left unturned, and we've still got some more things to go through, but that would be one of them, yes.

#### Q. Jay, can you outline if there's going to be more running this afternoon and for how long? We had that question from the media.

JAY FRYE: Yeah, there's going to be a couple more

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runs this afternoon, two quick runs. Kind of qualifying type, not trimmed out qualifying but kind of qualifying type simulations, yes, so a couple more.

#### Q. The safety team aspect you just brought up, if there is a larger impact, will there be a quickrelease system built in where if the safety team hits certain points that it can remove the entire shield in a matter of seconds or --

JAY FRYE: Yes, so they've already practiced, so they've had the frame, the piece that they're already practicing on. They're also practicing on if you had to take the thing completely off how quickly that could be done. It's very quick at this point. We have some great tools to do it.

Again, at the end of the day, we're really hoping that this creates -- so you don't have to extract anybody, right, it's there to protect people. So there's, again, like the whole thing that we've went through, there's really no stone that's been left unturned. They'll get better as they go. There's even parts of it that they think it's better than the current car to help extract because you can lean on it. There's eight inches in the front that they can lean on and it gives them leverage.

Again, it's just part of the process. We'll get better every day. If this thing is at 80 percent when he hand it off to the teams, the teams will make it even better, the guys will get better. For the first day we've had this piece on the track, to run 600 miles today, it's a big day. It's been a good day.

#### Q. From a driver standpoint, what are some things you might like to see tweaked a little bit? You talked about airflow. Anything else?

WILL POWER: No, I think the tear-offs are something we'll work on, and the airflow reflection, just basic things really. That's all -- you know, they've done such a good job, it's just the minor things that need to be worked on.

SCOTT DIXON: Yeah, I agree. Mostly I think it's going to be optional stuff, too, the way you do the tear-offs and some of the reflection pieces I think will be kind of -- I remember when we first got the Ford GT there was a lot of reflection problems with the dash, but actually when we started with this, it's been a whole lot better. There will be small things that I think people will change in-house.

