

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

IPR2025-00217 (Patent 10,952,153 B2)
IPR2025-00219 (Patent 9,706,500 B2)

Record of Oral Hearing
Held: April 7, 2026

Before KRISTEN L. DROESCH, FREDERICK C. LANEY, and
AARON W. MOORE, Administrative Patent Judges.

IPR2025-00217 (Patent 10,952,153 B2)
IPR2025-00219 (Patent 9,706,500 B2)

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The above-entitled matter came on for hearing Tuesday, April 7, 2026, commencing at 9:00 a.m. EDT, at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P-R-O-C-E-E-D-I-N-G-S

9:01 a.m.

JUDGE DROESCH: Good morning. We're convened for consolidated oral arguments for IPR2025-00217 and 2025-00209. I'm Judge Droesch. Joining me remotely are Judge Moore and Judge Laney.

I will get started with appearances for the parties for those who will be arguing today. If anyone else is attending, please introduce them as well. We'll start with appearances from Petitioner.

MR. JARRATT: Good morning, Your Honor. I'm Scott Jarratt for Petitioner, Tesla. And with me also is Counsel Dan Smith and Jon Bowser. And I'll be presenting the merits today, and Dan Smith will be addressing the motion to strike.

JUDGE DROESCH: Great. Thank you.

All right. Counsel for Patent Owner?

MR. THEISS: Yes. Brandon Theiss for Patent Owner, Intellectual Ventures. And with me is Heather King.

JUDGE DROESCH: Thank you. All right. Following the hearing, just please make sure that you speak with the court reporter and make sure that there's no requests for additional spellings or any case citations.

Okay. So, per the order regarding the oral hearing, this is a consolidated hearing for both cases. Petitioner is allotted 75 minutes for its presentation. Petitioner may reserve some of his time for rebuttal, but that may not exceed half of the total time. Likewise, following Petitioner's presentation, Patent Owner will also have 75 minutes and may reserve some of its time for rebuttal, as well, that shall not exceed half of the time.

1 And a couple of quick reminders. Please identify your demonstrative
2 slides by the slide numbers so that my colleagues that are attending remotely
3 can follow along. Please keep your arguments limited to only those
4 arguments that have been presented in your briefs, and make it clear which
5 challenges and claims you are addressing at all times. We also ask that the
6 parties hold any objections to opposing Counsel's arguments until it is your
7 time at the podium.

8 Counsel for Petitioner, would you like to reserve some of your time
9 for rebuttal?

10 MR. JARRATT: Yes, Your Honor. We'd like to reserve 20 minutes.

11 JUDGE DROESCH: Okay. All right.

12 Counsel for Patent Owner, would you like to reserve some time?

13 MR. THEISS: Yes, Your Honor, 30 minutes. And I have a minor
14 housekeeping question.

15 JUDGE DROESCH: Sure.

16 MR. THEISS: Will the remote Judges be able to see the screen that is
17 in the courtroom, or will they not be able to see?

18 JUDGE DROESCH: I don't believe that they're able to see it. That's
19 why it's important for you to announce which slide numbers you're keeping
20 up with.

21 MR. THEISS: Thank you, Your Honor.

22 JUDGE DROESCH: Okay. All right. I'm going to maintain a clock
23 here, and I'm going to endeavor to give a five-minute warning. But if not, I
24 think that the yellow light will flash when it's close to five minutes.

25 All right. Counsel for Petitioner, you may begin whenever you're
26 ready.

1 MR. JARRATT: Thank you, Your Honor. All right. May it please
2 the Board, so the two patents at issue in this consolidated hearing are the
3 '153 and the '500 Patents. And they're -- and they relate to cellular
4 communications. In particular, they're directed to the control of the power
5 with which the UE transmits up -- on the uplink to the base station.

6 And I'll note that the patents are in the same family, and they're in the
7 same figures and applications. So -- and they also claim priority to the same
8 application filed back in 2004.

9 So turn to Slide 3. The focus of the specification is this idea of
10 combined open-loop and closed-loop power control. And you can see in
11 green is the closed-loop component, and that's based on TPC commands.
12 That's transmit power commands. And the base station sends these TPC
13 commands to the UE, the user equipment, which is a cell phone. And the
14 UE responds by adjusting its transmit power.

15 And in open-loop power control, the UE actually changes its power
16 itself. And it's based on a measurement of a signal sent from the base
17 station, and the UE measures something called pathloss to determine the
18 number of errors in that signal. And if pathloss is too high, the UE increases
19 its power. If the pathloss is low, it decreases its power.

20 And that's really the thrust of the specification of the '153 and the '500
21 patents, is this idea of combining these two types of power control. But the
22 issue is, in 2004, when the original application was filed, this was already a
23 well-known idea.

24 JUDGE LANEY: Counsel, when it goes to -- well, let's back up. The
25 reason that it -- the patent talks about doing this is to conserve resources,
26 correct? That it wants to go, for example, if the phone is going too fast, if

1 it's doing the command process, by the time it's responding to the
2 commands, they've already changed their position, so the volume may not be
3 proper for that particular location because it's based on something earlier.

4 And the patent is trying to solve that by going through a closed loop to
5 another one, and vice versa. But did that -- do you understand my point? Is
6 that correct? Was that a correct understanding?

7 MR. JARRATT: Yeah. That's generally correct, Your Honor. It's
8 basically, by combining these power control settings, it gives the UE more
9 control and -- to better able to adapt to fast-changing conditions.

10 JUDGE LANEY: And it does that by enabling the TPC command, or
11 it's not enabled, the TPC command, right?

12 MR. JARRATT: That's correct, Your Honor. It can choose to use
13 solely open-loop power control or solely closed-loop power control, or a
14 combination of the two.

15 JUDGE LANEY: Okay.

16 MR. JARRATT: All right. One interesting thing is that the claims in
17 the '153 and the '500 Patent don't actually recite this idea of combined open-
18 loop and closed-loop power control.

19 If we turn to Slide 4, you can see the claims. And there's -- both
20 claims, in the '153 Patent Claim 1 and the '500 Patent Claim 11, those are the
21 independent challenged claims. And they both recite a user equipment and
22 generally recite how the power control is communicated between the base
23 station and the UE.

24 And there's two main issues in this case. First is this -- shown in
25 yellow. It's the receiver to receive from a network device an indication that
26 transmit power control, TPC, command accumulation is enabled. And that's

1 also recited in -- it's not recited in the independent claims of the '500 Patent.
2 It's actually recited in a dependent claim, but it's also challenged.

3 The second limitation at issue is shown in blue, and that's this idea of
4 receiving, by a single physical channel, scheduling information and power
5 control information that includes a multilevel TPC command.

6 And if we turn to Slide 5, the grounds --

7 JUDGE LANEY: Real quick, before you get there, I just want to
8 make sure your understanding is the same as mine. You don't understand
9 Patent Owner to be disputing any other of the claim elements other than the
10 ones that you have highlighted on 4, on your page 4 of your demonstrative;
11 is that correct?

12 MR. JARRATT: That's our understanding, Your Honor.

13 JUDGE LANEY: Okay. And if, looking at demonstrative page 4,
14 what's highlighted in yellow -- that issue would be dispositive for that
15 petition, but it would not be dispositive for the other petition; is that correct?

16 MR. JARRATT: With respect to the independent claims, that is
17 correct. So the '500 Patent --

18 JUDGE LANEY: Well, if it's dispositive in the independent claims,
19 then it's dispositive for the dependent claims for that patent -- or for that
20 issue.

21 MR. JARRATT: Yes, Your Honor.

22 JUDGE LANEY: Correct?

23 MR. JARRATT: Yes, Your Honor.

24 JUDGE LANEY: Okay. But if it is dispositive, you're saying, for the
25 second petition, it's not dispositive because the dependent claim and other
26 claims would still be subject to the challenge?

1 MR. JARRATT: Correct.

2 JUDGE LANEY: Okay. Thanks.

3 MR. JARRATT: All right. So, turning back to Slide 5, my point here
4 is that the same grounds are applied across both IPRs. We have the
5 Andersson ground shown in green, and we have the Zeira ground shown in
6 blue. And for simplicity's sake, the demonstratives cite to the briefing and
7 the '153 patent, but the issues are the same across the two.

8 All right. If we turn to Slide 6 -- so let's address this first issue, which
9 is the receiving indication that transmit power, TPC, command accumulation
10 is enabled.

11 If you turn to Slide 7 -- so I tried to crystalize on Slide 7, you know,
12 what's the real issue between the two grounds for this issue? And for the
13 Andersson ground, Patent Owner alleges there's, quote, no claimed
14 indication because Baker's TPC command accumulation is, quote, always
15 enabled.

16 And in -- to -- first, to understand whether this is true or not, we need
17 to understand, what is TPC command accumulation? So let's actually look
18 at that first, turning to Slide 8. So --

19 JUDGE LANEY: Before we get there, to understand what it is, going
20 back to the claim language, all that the claim requires is that you're
21 establishing whether or not -- you're receiving a signal, basically, that
22 establishes whether or not the TPC accumulation is occurring or not,
23 correct?

24 MR. JARRATT: Yes. The claim is fairly broad in that a UE just
25 needs to receive an indication that TPC command accumulation is enabled.

1 It doesn't recite receiving a command or anything that toggles accumulation
2 on and off, right? Just simply an indication.

3 JUDGE LANEY: And -- right. And the claim doesn't claim any
4 particular way of doing TPC accumulation, correct?

5 MR. JARRATT: That's correct.

6 JUDGE LANEY: Okay.

7 MR. JARRATT: But I will note that the specification does give
8 details about what exactly is TPC command accumulation. So --

9 JUDGE LANEY: Okay. Yeah, and when we get to that, what I'm
10 going to look for from you is what you think in the specification limits it to
11 that particular way. I understand your position about it. You know, it
12 describes one way accumulation as being iterative, like each one and
13 another. I understand this view to be, okay, that's fine. That's an iterative
14 way of doing it.

15 But another way that could be done is where you have a grouping,
16 where you have your count every fifth one or every tenth one or every 15th
17 one. But you're still accumulating because you're comparing it to -- you're
18 collecting a history. You're accumulating those commands, and you're
19 comparing it to a previous command to determine whether or not you've
20 gone up or down or stayed the same.

21 And so that's what I understand Patent Owner's position to be. And I
22 think they have some merit in the idea that the claim -- what I'm looking for
23 you is, in the specification, what would limit to just this iterative process one
24 after the other versus covering the alternative that they're arguing, which is
25 every fifth one?

1 And if you could, go beyond just simply telling me, well, one
2 compares, one actually subtracts -- adds or subtracts or leaves it in the thing,
3 whereas the other one actually is comparing, unless that's what you say it has
4 to be, and then I'm going to be looking for something in the specification
5 that says it has to be something that adds or subtracts or leaves it the same.
6 Is that fair?

7 MR. JARRATT: That is fair, Your Honor. One quick note on
8 something you said of -- I think you characterized Patent Owner as saying
9 that just collecting TPC commands is accumulating. And I don't think that's
10 reflected in their expert's testimony about what is accumulation.

11 JUDGE LANEY: Well, I don't know if I'm saying that's what Patent
12 Owner says. We're trying to construe the claim as a question of, well, I'm
13 telling you what I understand looking at the specification, looking at the
14 claims and the context, looking at what the problem is they're trying to
15 solve. It seems to be less about how you're specifically doing the TPC piece
16 and more about this notion of the fact that you in fact are doing
17 accumulation in order to be adjusting during this period of time. Well, that's
18 just a wasted resource because the phone's going so fast that that's not really
19 effective. So that's a waste.

20 And so what the patent does is the patent teaches something different.
21 The patent says, look, we're going to turn that off. We're not going to be
22 trying to listen to this master that went off that's not --

23 (Audio interference.)

24 JUDGE LANEY: There's some background noise. It's not serving its
25 purpose because of the speed of my phone, because of my conditions. And
26 so I want to turn off that resource. I understand the fight being the fact that

1 in Khan, it doesn't ever turn off the resource. It just changes the way in
2 which you're creating the resource in order to make that power adjustment.

3 MR. JARRATT: Understood, Your Honor. So let's look at the
4 specification. So, turning to Slide 8 -- so this first quote is column 9 for the
5 '153 patent, and it discusses generally, how do you recalculate transmit
6 power? And it talks about receiving TPC commands where TPC -- if it's
7 negative 1, it's a down TPC command. Plus 1 for an up TPC command.
8 Zero if no TPC command is received.

9 And what it does when it receives those TPC commands says the step
10 is the magnitude of the amount added to an accumulator on the receipt of
11 each TPC command. So what is an accumulator? Well, if we look at the
12 bottom quote, it says an accumulator has an input for accepting step increase
13 and decrease instructions and an output for providing a sum of the past step
14 instructions.

15 And if we then look on Slide 9, you'll see that the equations provided
16 in the specification are consistent with this. They state that the UE may use
17 the accumulated TPC commands. And it defines accumulated as the
18 summation of these commands using the sigma summation operator. Right?
19 It's very consistent with that.

20 And if you look down at the bottom equation, this is the full transmit
21 power equation that the UE uses to calculate transmit power. And then
22 you'll see that it uses and applied the summation of the TPC commands, its
23 accumulation of the TPC commands, to transmit -- to calculate transmit
24 power.

25 So what this means is that if you receive five one-up commands, the
26 transmit power will go up by five. And I'll note that the '153 Patent does say

1 you can apply -- you can calculate the new transmit power -- you can either
2 do it every time a TPC command is received or you can do it less often. But
3 regardless, it uses the summation of these TPC commands to calculate
4 transmit power, no matter when the transmit power is calculated.

5 All right. If we turn to Slide 10 -- and I'll note the Patent Owner's
6 response seemed to be consistent with this. They state that Patent Owner's
7 broader construction of accumulation refers to the process of collecting and
8 summing TPC commands so that they cumulatively affect transmit power.

9 (Audio interference.)

10 JUDGE DROESCH: All right. Counsel, you can go back at it.
11 Sorry about that.

12 MR. JARRATT: No problem, Your Honor.

13 All right. So, going back to Slide 10, I was -- my point was that
14 Patent Owner's response -- they seem to characterize how -- what the
15 process of accumulation means as summing TPC commands. And they --
16 and it looks like they base this upon their expert's testimony, if you go to
17 Slide 11.

18 So this is Dr. Lomp's, Patent Owner's expert, and this is his
19 declaration 2016. And he says the UE keeps a running tally of all the up and
20 down commands. This process of summing these incremental adjustments
21 over time is what the patent refers to as accumulation. So -- and that's what
22 Dr. Kotzin's analysis concluded as well.

23 So you have both experts saying that, in the context of the '153 Patent,
24 what accumulation means is the summing of these incremental adjustments
25 over time.

1 JUDGE LANEY: Do they say that's what it's limited to or that's how
2 it's used in the context of the '153? In other words, it doesn't show it -- an
3 alternative TPC accumulate, but the one that -- the TPC accumulation that's
4 used in the 13 -- '153 is that summation one.

5 And I point out in the -- your Slide 8 it just has a sum embodiment,
6 and yes, it goes on to explain those embodiments. But what limits TPC
7 accumulation to only being the summation?

8 MR. JARRATT: Yeah. And I understand your concern, Your Honor.
9 So the claim itself just says TPC command accumulation. It doesn't describe
10 how or -- how it does it or what. But I think it would be improper to apply a
11 dictionary definition that just is more broad of just collecting TPC
12 commands, when you have to read the claims in view of the specification.
13 And you have --

14 JUDGE LANEY: Well, I understand that point. But in Khan, there is
15 a form of accumulation in that it is building off; it is still an iterative process.
16 I understand it's comparing. But that's the -- the devil's in the detail. It's
17 comparing to what? It's comparing to what it was before in am I higher and
18 am I lower and if I haven't changed.

19 Well, what has gone higher? What -- relative to what is it going
20 lower? Relative to what hasn't it changed? What happened before? So it's
21 still doing a compare. And when I do a summation up one, down one, I
22 mean, that's really just a comparison also. I mean, I guess that's why -- I
23 mean, that's why I'm getting a little bit -- that's why I have issues with the
24 Petitioner's position, because yes, I understand the path is plus one, minus
25 one.

1 That's because it's doing each one, and that seems to be really nothing
2 different than taking every tenth one and comparing it to what it was to the
3 five -- and you're still making it compare to. One does it by adding or
4 subtracting. The other one is doing it by taking the fifth one and seeing if
5 I'm higher or lower or the same as it was five beats earlier.

6 MR. JARRATT: So, actually, let's look at Khan. I think that would
7 help. Also, first, the combination at issue is -- excuse me. The secondary
8 reference in this ground is Baker, actually. I think we've both been saying
9 Khan. Baker is actually the reference that talks about accumulation, TPC
10 command.

11 So the combination here is Andersson and Baker. And Andersson has
12 this idea of the multilevel TPC command, and it also has this idea of a power
13 control flag. This is on Slide 13 if I didn't mention that. And where we --
14 the petition proposes for this power control flag, which generically switches
15 between two types of power control, using Baker's technique of enabling or
16 disabling TPC command accumulation.

17 So let's look at Baker on Slide 14. So there's this -- Baker teaches this
18 PCA flag that's sent from the base station to the UE, and it means power
19 control algorithm. So it's switching how power control is conducted on the
20 UE.

21 And what the PCA does -- it determines whether the UE sums up TPC
22 commands to affect power control or whether it compares TPC commands,
23 which is not accumulation. So --

24 JUDGE LANEY: And it never disables power control, right?

25 MR. JARRATT: It never disables -- correct.

26 JUDGE LANEY: I mean, it never stops doing power control, right?

1 MR. JARRATT: Right. Yeah, it is still -- the base station is still
2 sending down the TPC commands. But the thing -- the way that the user
3 equipment is collecting them and using them is not accumulation as within
4 the understanding of the '153 Patent because when the base station --

5 JUDGE LANEY: When you say -- I just want to make sure. It's still
6 sending down the commands, and the phone is still responding to those
7 commands in order to make a determination about whether to go up or stay
8 the same or go down, as far as volume, right?

9 MR. JARRATT: Correct. It is using those TPC commands, but it's
10 not accumulating them within the understanding of the patent. So
11 accumulation --

12 JUDGE LANEY: And that's different than what the patent is
13 referring to, right? It's talking about enabling the TPC commands in order to
14 do that process of determining whether or not the volume needs to be
15 adjusted or not, or turning it off so that I don't need to listen to the boss; I'm
16 going to determine whether or not to turn my volume up, down, or stay the
17 same based on some other algorithm. I mean, is my understanding correct?

18 MR. JARRATT: Okay. I think -- all right. So I think one point of
19 clarification -- you can send down TPC commands without accumulating
20 them. I think the idea of using TPC commands for closed-loop power
21 control is distinct from, what do you do with TPC commands when they're
22 received at the user equipment?

23 JUDGE LANEY: I agree wholeheartedly with you. That's not the
24 issue I'm making. But I need to understand context, as well, when I'm
25 interpreting claim terms, right?

26 MR. JARRATT: Right.

1 JUDGE LANEY: And I'm trying to understand the context. And as I
2 understand the context, in the patent, we're talking about enabling a TPC
3 command in the context of the '153 Patent as well as the '500 Patent. We're
4 enabling whether or not the phone is going to adjust its volume based on the
5 commands provided from the tower, whereas, with Baker, you're pointing
6 me to this different --

7 (Audio interference.)

8 JUDGE LANEY: -- which they're going to adjust their volume based
9 on the command from the tower, which is not really explained -- you agree
10 that in Baker, it's not making -- it's not going between I'm going to adjust my
11 volume based on the tower or I'm not going to adjust my volume based on
12 the tower.

13 MR. JARRATT: I agree with that. So Baker does -- in both PCA
14 equals 1 or 2, it's still using -- generally using the TPC commands. But the
15 claim requires TPC command accumulation, not just using TPC commands.
16 And think there's a difference there. You can use closed-loop power control
17 without accumulating the TPC commands at the UE. You could just --

18 JUDGE LANEY: But isn't that the issue? I mean, isn't the issue of
19 whether or not -- when it says TPC command accumulation, it doesn't say
20 able TPC accumulation. That's not what the claim says. The claim says
21 receiving a signal that TPC command accumulation is enabled.

22 I mean, in that context, really, how it's doing it has very little
23 relevance. The question is, what are we or are we not enabling? What isn't
24 receiving the signal to enable or not to enable? And it seems like Petitioner's
25 perspective is, well, look, all it has to do is -- is either turn on point-by-point

1 accumulation and -- or point-by-point summation, and if it's point-by-point
2 summation, then it's not building accumulation.

3 MR. JARRATT: So I would -- so you -- I think -- let me -- I think, to
4 respond to your point, I think the TPC commands are independent -- so the
5 closed-loop power control always uses TPC commands. What the UE does
6 with those TPC commands when they get there -- that's either accumulation
7 or not accumulation.

8 So the base station could send out a TPC command. The UE could
9 use the TPC command to affect transmit power without accumulating the
10 command at all, or the base station could send out a TPC command and the
11 base station -- or the UE could accumulate, sum up, all the previous TPC
12 commands to cumulatively affect transmit power.

13 So the TPC commands do not always have to cumulatively affect
14 transmit power. So that's the distinction we're trying to make, is you have
15 closed-loop power control, but within that, you can either accumulate or it
16 can not accumulate. And so -- and that's what Baker does. When PCA is 2,
17 it's receiving these TPC commands. It's comparing them. And if they're all
18 the same, if there are five commands in a row that are the same, it'll increase
19 by a step amount.

20 It does not use the actual command of the TPC -- like, so it could --
21 for example, there could be 100 TPC commands sent from the base station
22 to the UE, and if there's never five in a row, the base station -- the UE will
23 just throw those TPC commands away and never actually adjust transmit
24 power, right, because it's looking for this comparison. So -- and that's very
25 distinct from --

1 JUDGE LANEY: But if there is five in a row, it'll use the command
2 to go up or down, right?

3 MR. JARRATT: It will not use the command. It'll use a set value.
4 The command itself are compared, and then those TPC commands are
5 thrown away. And then the --

6 JUDGE LANEY: But it uses the command to determine whether or
7 not to use that set value.

8 MR. JARRATT: Correct, but it does not do a summation --

9 JUDGE LANEY: Okay.

10 MR. JARRATT: -- which is what accumulation is.

11 JUDGE LANEY: Okay. I understand. But it's still enabling the use
12 of the command.

13 MR. JARRATT: Correct, which -- our position is that it's different --
14 just using a TPC command is different from accumulating them together
15 using summation as described in the specification.

16 JUDGE LANEY: But you would agree with me the specification
17 doesn't reflect the difference that you're pointing out? In other words, the
18 specification of the '153, as well as the '500, the difference is, in one instance
19 you actually are using the TPC command? In the other instance, when it's
20 not enabled, you're actually not using the TPC command in order to adjust
21 volume.

22 MR. JARRATT: So I think that -- the patent refers to that as enabling
23 or disabling closed-loop power control, period. All right? That's -- just
24 turning on and off the use of TPC commands completely. So -- and I think
25 that's one issue here, is that --

1 JUDGE LANEY: But -- but is my statement still true? I mean, are
2 you saying that the tower stops sending commands altogether, or are you
3 saying that the user's phone, when it's enabled, will use the TPC command in
4 order to adjust volume; when it's disabled, it -- the phone will not use the
5 TPC command to adjust volume?

6 MR. JARRATT: If closed loop is enabled, it will use TPC
7 commands. If closed loop is disabled, it will not use TPC commands. And
8 that's something different than --

9 JUDGE LANEY: And so, just using my -- what is wrong with my
10 terminology in that if it's -- so, closed loop, the TPC commands come down.
11 The phone uses the TPC commands to adjust the volume, right?

12 MR. JARRATT: Yes. In closed loop, yes, that's correct.

13 JUDGE LANEY: Okay. And so when closed loop is enabled?

14 MR. JARRATT: Yes.

15 JUDGE LANEY: And an open loop is -- or I guess I can word it this
16 way. When the closed loop is disabled, then it's no longer using the TPC
17 command in order to adjust the volume?

18 MR. JARRATT: That's correct, Your Honor. And --

19 JUDGE LANEY: Okay.

20 MR. JARRATT: -- I would say the claim is not talking about
21 disabling or enabling closed-loop power control. The claim is talking about
22 enabling or disabling accumulation. What do you do with the TPC
23 commands when they're actually received at the UE?

24 All right. So maybe let's move on to the Zeira ground on the same
25 issue. All right. So the Zeira ground -- actually, let's go up to the summary

1 slide real quick on Slide 7. So, for the Zeira ground, Patent Owner is
2 alleging there's, quote, no network signal to toggle accumulation on and off.

3 And I think you touched on that earlier, Judge Laney, that the claim
4 doesn't actually require toggling accumulation on and off. It just requires
5 some sort of indication. And despite that, Zeira does disclose or render
6 obvious a network signal to toggle accumulation on and off. So let's look at
7 that.

8 If we go to Slide 15 -- so this is Zeira, and it -- just like the '153
9 Patent, it has a combination of open-loop and closed-loop power control.
10 And the Equation 4 -- this is how it calculates transmit power, the purple.
11 So it has this closed-loop factor, and it has this green open-loop factor.

12 And again, this closed-loop factor is based upon TPC commands.
13 And you can see that in Equation 6. The closed-loop factor $G(n)$ is based on
14 a previous closed-loop factor plus the current TPC command. And so each
15 closed-loop factor is based on an iteration and a summation of all the
16 previous TPC commands. And so -- and thus -- and when the closed-loop
17 factor is enabled, TPC command accumulation is enabled because it's adding
18 up these TPC commands.

19 And I think interesting thing here is that if you nullify or disable or
20 zero out the closed-loop factor, you're no longer going to be using TPC
21 commands. And thus you can't be accumulating them at the UE. And so
22 disabling closed-loop factor in Zeira disables TPC command accumulation.

23 All right. Turn to Slide 16. And Zeira actually gives us a way to
24 disable and enable this closed-loop factor. And it says that there's this
25 waiting factor in yellow that can be applied to the closed-loop factor or both

1 the open- and closed-loop factor. And the network operator might choose to
2 use only closed-loop power control or only open-loop power control.

3 And if we turn to Slide 17 -- so Slide 17 kind of shows an example of
4 what happens if this waiting factor is applied to the closed-loop factor that
5 uses TPC commands. And if the waiting factor is set to zero, then the
6 closed-loop factor is zeroed out, and you only have open-loop power control.
7 And because you're not using TPC commands at all, TPC command
8 accumulation is disabled. And if the waiting factor is set to something other
9 than zero, then you will have combined open-loop and closed-loop power
10 control, and TPC command accumulation will then be enabled.

11 And so this waiting factor is the claimed indication in the context of
12 Zeira.

13 JUDGE LANEY: What's determining whether or not -- could you
14 explain to me a little bit more about what's determining that value that
15 switches the TPC accumulation enabled or disabled? Is that something that -
16 - I mean, I see it says the operator, so that seems to be something that's
17 manually selected. Is that correct or no?

18 MR. JARRATT: Yeah, so if we go to Slide 18, we have the pertinent
19 text of Zeira. So the claim does require receiving this indication. And so
20 Zeira, like you mentioned, it's the network operator that desires to use the
21 solely open-loop power control or the solely closed-loop power control.

22 So it's the network operator that's controlling it. And the operator is
23 the one who sets it to zero to either turn on and off closed-loop power
24 control. And we believe this disclosure alone renders obvious the claim.
25 But to the extent Zeira does not explicitly say there's a signal received by the
26 UE, we brought in the Baker reference that explains, you know, that's a basic

1 time of communication, the base signal sending signals to the UE to make
2 power control adjustments.

3 And the combination of the two most certainly renders obvious the
4 claim. And I'll note here that in Petitioner -- or sorry, excuse me -- Patent
5 Owner's response, they did not actually challenge the combination of Zeira
6 and Baker, the motivation. They simply attacked and said that Zeira does
7 not include all the elements, and Baker does not make up for those. But they
8 never challenged the actual combination itself.

9 All right. So let's -- if there's no more questions, let's go to Issue 2.
10 This is on Slide 19. So the second issue is about the single physical channel
11 limitation. And it says receiving, on a single physical channel, scheduling
12 information and power control information that includes a multilevel TPC
13 command.

14 If we go -- let's go to Slide 20. And again, I've tried to crystallize the
15 issues here. And so, on Slide 20, for both grounds, Patent Owner is alleging
16 that there's no motivation to combine on the, quote, incompatible channels in
17 the references. And the short answer of why this is wrong is that the petition
18 is not combining channels at all, right? It's simply modifying existing
19 channels in the references.

20 So let's look in more detail, looking at Slide 21. So this is Khan. And
21 Khan discloses Figure 5, which is disclosing, what are the signals that are
22 sent between the base station and the user equipment? And Khan explicitly
23 shows in Figure 5 the TPC commands and the scheduling information --
24 scheduling grant, SG -- being sent on the same physical channel. That's that
25 top row of boxes. And that's exactly what's claimed. And so --

26 JUDGE LANEY: What's shown on the bottom row of boxes?

1 MR. JARRATT: That is the corresponding uplink. So the top row is
2 the downlink physical channel, and the bottom row is the corresponding
3 uplink. So, for instance, the UE receives this, the scheduling grant, and then
4 it transmits on the uplink using the grant. Which slot do I transmit in to send
5 its data back up to the base station?

6 JUDGE LANEY: So, if you apply this to -- I mean this is, what I've
7 found I guess would be helpful for me as far as clarification -- as I
8 understand Patent Owner's argument, they're addressing the fact that I
9 believe in Andersson -- correct me if I'm wrong, but in Andersson, this
10 bucket, this other bits that you're relying on, as providing the space to put --
11 and scheduling this other information. So you would take scheduling and
12 put it where it says other bits, right? That's my understanding from what
13 Petitioner's argument is.

14 MR. JARRATT: Roughly.

15 JUDGE LANEY: As I understand it, what Patent Owner is saying is,
16 you're trying to put these bits that Khan talked about as far as scheduling
17 works so you can combine them and get the benefit of having the command
18 and the scheduling on the same channel, but that's occurring in I think layer
19 1 is their argument. Whereas Andersson, that bucket is found in layer 3,
20 which is a much slower looping way, as I understand their analogy.

21 And that someone -- a skilled artisan looking at what would be done
22 for layer 1, that's a much more high speed, would not necessarily be applied
23 or even intuitively applied to the third layer because you're having to find
24 layers in order to get to that information and it would be much slower and it
25 wouldn't satisfy the objective of what Khan was trying to satisfy. And I say

1 all that just to say, do you feel like I like Patent Owner's argument? So why
2 is Patent Owner's argument wrong?

3 MR. JARRATT: The main reason it's wrong is because the
4 characterization of what Andersson is doing is based entirely on WCDMA
5 specification, a very specific specification that has very specific
6 requirements and rules. Andersson, however, is not so specific. It's meant
7 to apply to CDMA or WCDMA and a lot of different cellular type systems.
8 And it's generally teaching concepts that can be applied, how do you control
9 power control from the base station to the UE, across a lot of different
10 systems. And Patent Owner's arguments only come into play if you limit
11 Andersson to WCDMA, which is not so limited.

12 JUDGE LANEY: I'm following on that. I guess my confusion
13 though is, or my question for you is, but this bucket is important for your
14 analysis because that's the space for this extra information such as the
15 scheduling. And while Andersson, it talks more generally -- this space
16 exists on the third layer, right?

17 I mean, you're not suggesting that they're saying, hey, you can just put
18 this blank space or a skilled artisan would just say, hey look, it teaches a
19 bucket -- it teaches a blank space. Put that on any layer you want, put that
20 on layer one. With that, I mean, is that what Petitioner's understanding is?
21 Is that what you're arguing to us as well? I mean, does it apply as much to
22 that bucket as it does to the scheduling data?

23 MR. JARRATT: Well, I think a couple of things there, Your Honor.
24 I'm not quite sure that's exactly what they're arguing. You'll have to ask
25 them. I don't want to characterize or mischaracterize their arguments. But
26 in general, we don't need to address the layer 1 versus layer 3 because

1 Andersson, again, it's these general concepts of how would you do power
2 control. And Khan gives the benefit of if you put them on the same channel,
3 then you can potentially have additional active users, right?

4 So in Figure 5 of Khan, it says right after -- it says if you put them on
5 the same channel, you have additional active users. And that's because you
6 are, instead of sending them on two physical channels, you're now sending
7 them on one physical channel. So you're freeing up a physical channel. And
8 so now you can use that additional physical channel for additional user
9 equipment.

10 JUDGE LANEY: For this claim element -- okay. Let me make sure I
11 understand. I guess my question for you would be why do we need -- this
12 claim element? And maybe -- what your answer is. We really don't. We
13 have Andersson, but Khan tells us that when you're putting this, signaling
14 the command and the schedule, we can put that on one channel. Khan
15 teaches that. And I guess where the confusion comes in is, but you've
16 pointed to -- in your case, you pointed to this bucket and said, hey, there's a
17 free space. And Khan says it can be on one channel, so let's put this stuff in
18 this free space.

19 And so if that is your combination, then that does seem to be to force
20 us to have to grapple with, well, would someone put or know to put this
21 scheduling in that bucket? But what I understand you to be saying now is a
22 little bit different. What I understand you now to be saying is we were -- in
23 the bucket, but that's really not that relevant because what Khan teaches us is
24 that the command can be on the same channel, period.

25 MR. JARRATT: And I think that was in the petition, that was our
26 original position, Your Honor, of there's benefits to putting both of these

1 things in the same physical channel. And those benefits would also apply to
2 the Andersson system or the zero system. And a POSITA would be
3 motivated to try the two bits on the same physical channel to achieve those
4 same benefits, all right? It's traditional motivation to combine. And if you
5 really want to get into the --

6 JUDGE LANEY: So then why did the bucket -- why did you refer to
7 Andersson? And maybe I'm getting things confused, but didn't the Petitioner
8 point to Andersson and say it has the -- space? And from that, a skilled
9 artisan would take the scheduling information and put it in that free space?

10 MR. JARRATT: Okay. I think I understand --

11 JUDGE LANEY: Yeah. In other words, you can see Andersson
12 doesn't disclose putting both the scheduling and the command on the single
13 channel.

14 MR. JARRATT: Yes.

15 JUDGE LANEY: So you point to the free space, and now we're on
16 layer 3 that has this free space, and you're saying we're going to fill that with
17 the scheduling information.

18 MR. JARRATT: Well, the motivation to add the scheduled
19 information was not because there was this free space in Andersson, right?
20 The motivation was from Khan that says when you put them on the same
21 channel, you can have additional active users. And so Dr. Kotzin
22 characterized that you could add the scheduling information to the other bits
23 as an example implementation, right? This was not the motivation to do the
24 combination. The motivation comes from Khan.

1 JUDGE LANEY: But does that say all those rationalizations that you
2 put -- all the benefits that Khan talks about, does that apply equally
3 regardless of whether it's on layer 1 or layer 3?

4 MR. JARRATT: I think the benefits in Khan specifically is because if
5 you have them on the same physical channel, regardless of where that is, you
6 can have additional users, because cellular systems only have a finite
7 amount of physical channels, only a finite amount of spectrum. And so you
8 want to save physical channels as much as you can. And so by combining
9 this information in one, you free up another one. And that's a benefit,
10 though, to go across wherever the physical channel is.

11 JUDGE LANEY: Well, and maybe this is what I understand to be the
12 rub is. But if you're applying this command on layer 3, which is a one-to-
13 one correlation, then you can't really be doing what the benefit Khan talks
14 about because that's kind of one-to-many. They send out one that generally
15 applies, as I understand, or it goes out once, and that can be used by multiple
16 ones, so you're able to free up some space. I don't have to do it every time.

17 But when you're talking about doing this stuff on layer 3, that's a one-
18 to-one relationship. So I'm trying to articulate and show you so you
19 understand where I'm confused, so you can help clarify things.

20 MR. JARRATT: Okay. I now understand exactly where you're at.
21 It's one-to-one UE. There's one physical channel for a UE versus multiple
22 UEs all looking at the same shared channel. Is that what you're saying? So
23 okay, I think that is also a misconception. And if we go back to Khan --
24 excuse me. So if we go back to Figure 5 of Khan, what we're looking at
25 here is a single Walsh physical channel on the top row, and that is dedicated
26 to a single user equipment. And so I'll show you exactly how I know that.

1 If we go to Khan. If we go to Khan, first starting in column -- excuse
2 me. Paragraph 40 of Khan, this is describing the channel structure of Khan.
3 So it says a Walsh -- sorry. Forward MAC channel, that's a logical channel,
4 may be composed of Walsh channels. And a Walsh channel is the physical
5 channel.

6 JUDGE LANEY: Could you repeat that paragraph again? Sorry. I
7 just want to make sure I'm --

8 MR. JARRATT: Yeah, that's paragraph 40. This is important, so let's
9 make sure we're all here.

10 JUDGE LANEY: Okay. I'm there.

11 MR. JARRATT: All right. So paragraph 40 is describing the channel
12 structure of Khan, and it says the forward MAC channel, that's a logical
13 channel, may be composed of Walsh channels. So the Walsh channels are
14 the physical channels that are orthogonally covered by different codes.

15 In the next sentence it says, each Walsh channel is identified by a
16 MAC index value, all right? That's defined by a unique Walsh cover and
17 unique modulation phase. So the Walsh physical channel is distinguished
18 from other Walsh channels by a Walsh cover, a code, and a unique
19 modulation phase. So, all right. So Walsh channel and then a MAC index is
20 a particular Walsh channel.

21 So if we go to then, if we look at paragraph 45, Your Honor. All
22 right. So in 45 it says, in one embodiment, each active mobile having an
23 open connection be allocated a unique MAC index. And we just learned that
24 a MAC index is one physical Walsh channel. And so each active mobile has
25 one unique MAC index, so one physical channel. And that's what we're
26 looking at in Figure 5.

1 If we go down to Figure 47 -- sorry, paragraph 47, we go to the
2 second sentence starting with however. It says, it may be possible to time
3 multiplex TPC bits in scheduling grant, and the MAC index may, for
4 example, carry the TPC bit in some slots and the scheduling grant in one or
5 more other remaining slots. So it's saying the MAC index, the Walsh
6 physical channel that's assigned to one UE, carries both TPC bit and
7 scheduling information.

8 And so that is why in Figure 5, Khan shows both TPC bits and
9 scheduling information on the same physical channel going to one UE. And
10 that's the same exact disclosure in Khan -- excuse me, in Andersson. We'll
11 go back to Andersson on slide 23. So Andersson is sending this information
12 on the DPCCH. This is slide 23, Your Honor. Figure 5 of Andersson. And
13 the DPCCH is the Dedicated Physical Control Channel. So that's one-to-
14 one. It's going to one UE, and it's a physical control channel.

15 And so putting Khan's scheduling information that's on a dedicated
16 channel to one UE and applying that same technique to Andersson that also
17 shows a dedicated physical control channel, that would be obvious according
18 to Dr. Kotzin and the evidence in the record.

19 All right. So let's go to paragraph 25. And so Patent Owners, they
20 argue against this combination based on physical incorporation. And if you
21 see in this first quote from Patent Owner Response, they say that these
22 channels operate with different multiplexing structures, and combining them
23 would not have been predictable. But, again, we're not combining these
24 channels at all. We're just taking Andersson's existing channel and adding
25 additional information.

1 And if you look at the second quote, it says, this would require a
2 substantial redesign of the channels. And that's just not what the
3 combination looks like. Dr. Kotzin said, for example, you could put the
4 scheduling information in these other bits. So no redesign is required.

5 And Patent Owner also alleges that Andersson is limited to WCDMA,
6 and they use this assumption to kind of create these incompatibilities when
7 you're doing this channel combination. But if you actually turn to slide 27,
8 as I mentioned, Andersson is much more broad than that. It says, for
9 example, a CDMA or a wideband CDMA system is what it's directed to. So
10 basically any type of system, you could use these techniques that are
11 described, and you'd have benefits.

12 And we actually asked Dr. Lomp, IV's expert, about this. And we
13 asked him, does this sentence mean in the context of Andersson includes
14 both CDMA and WCDMA? He says, I think that's a fair interpretation of
15 this sentence. So Andersson's not limited. And thus all the incompatibilities
16 listed in Patent Owner's response are not true.

17 And another important thing here is that Dr. Kotzin, he actually
18 analyzed -- this is slide 25, Your Honors. He analyzed the combination
19 under generally CDMA techniques. He did not analyze it under WCDMA.

20 JUDGE LANEY: Slide 25 or slide 28?

21 MR. JARRATT: Twenty-eight, sorry. Did I say 25? This is slide 28.
22 So again, I'll read this portion of Dr. Kotzin's declaration. He says, a
23 POSITA is thus naturally expected to be successful applying well-known
24 CDMA techniques such as Khan's, especially in view of Andersson's
25 statement that he uses well-known CDMA techniques. So at the end of the

1 day, Patent Owner's arguments simply just don't reflect the evidence in the
2 record.

3 And then they make similar arguments -- going to slide 29. They
4 make similar arguments with regard to Zeira, and that it's limited to UTRA-
5 TDD in UMTS release 99. And, again, they use that very specific
6 specification to create these incompatibilities. But, again, if you look at
7 slide 30, Zeira is just generally applicable to all TDD systems. And TDD is
8 time division duplex, and that's just the manner of which the base station and
9 the UE communicate. They take turns. So the base station transmits and
10 then the UE transmits. They take turns. That's just a very general concept.
11 It can be applied to a lot of different types of sailor systems. Zeira is not one
12 of them --

13 JUDGE LANEY: I thought Patent Owner's argument regarding Zeira
14 had more to do with the fact that -- or maybe that's what you -- address. I
15 thought it had to do with the fact that Zeira is not being provided the
16 scheduling data. It's doing its own. And so it doesn't satisfy the claim
17 element according to Patent Owner, because the claim requires you to
18 receive the scheduling information. Am I missing -- I don't understand my
19 understanding of --

20 MR. JARRATT: Your Honor, I think your characterization of Patent
21 Owner's characterization might be slightly off base, because Zeira does
22 receive TPC commands and scheduling information, all right? That's how
23 the UE and Zeira knows how and where to send its uplink data. It has to
24 receive some sort of scheduling information from the base station.

25 JUDGE LANEY: Thank you.

1 MR. JARRATT: All right. And so I think -- so at the end of the day,
2 the evidence in the record shows that there's nothing new about the
3 challenge claims, and they should be found unpatentable. And I'll reserve
4 the rest of my time if there's no more questions. Thank you, Your Honors.

5 MR. THEISS: Your Honor, just for clarification, should I also
6 address the pending motion -- case in chief?

7 MR. JARRATT: Yes. Excuse me. Sorry, Your Honor. Dan Smith
8 will now address the motion to strike. Thank you, Brandon.

9 MR. THEISS: No worries.

10 MR. SMITH: I was going to say something if you didn't.

11 MR. THEISS: No, that's okay.

12 MR. SMITH: Thank you. Thank you, Your Honors, and thanks,
13 Scott. I'm Dan Smith, and I'll be discussing the motion to strike issue on the
14 500 case. I'll be brief in the interest of time and, frankly, because the issue is
15 simple. IV's surreply presents a completely new argument that comes out of
16 left field.

17 After attacking only the reasons to combine the various prior art
18 references for a particular limitation in its POR, IV's surreply for the first
19 time argues that that particular limitation is missing from the prior art. No
20 similar argument was made in the POR or in the reply, and IV did not
21 identify one in either the surreply or their opposition to our motion to strike.

22 Now, we realize that the Board is generally reluctant to strike
23 arguments from the record, but the trial practice guide here provides an
24 identical situation as an example of when striking a portion of the surreply is
25 appropriate. And IV should not be permitted to spring a new argument at
26 the close of briefing after all our opportunities to respond have passed.

1 Accordingly, we ask that the Board grant our motion to strike and strike the
2 offending portion of IV's surreply.

3 Let's go to slide 32 -- I'm sorry, slide 33, which I guess we're already
4 on slide 33. Let's look at the argument in question. The surreply argues that
5 the allocation of an uplink resource shown in the prior art is not tied to a
6 specific uplink resource for performing a transmission. And here, IV is
7 clearly arguing a missing claim limitation or gap in the combined teachings
8 of the references in the various combinations. And while its previous
9 arguments were directed solely to the reasons to combine the references for
10 this element.

11 JUDGE LANEY: Can I ask you a quick question on this?

12 MR. SMITH: Of course.

13 JUDGE LANEY: And this motion to strike, to outline, I have an
14 issue with -- and I'd like to get your feedback on it. I think there is a
15 difference between raising a new argument in which you're trying to
16 characterize and say this evidence -- something else or it leads in a different
17 direction. I guess I find that different -- than if a Patent Owner which says
18 element A does not exist in any of the evidence that they show. Something
19 that went -- in other words, the claim requires element B. They did not show
20 element A. Nothing more to it. And here's why I draw that distinction that
21 I'd like some help from.

22 MR. SMITH: Sure.

23 JUDGE LANEY: I draw that distinction because if all they're saying
24 is Petitioner did not show element A, I find that to be a hard thing to waive.
25 Or for us to -- it becomes a moot issue, I guess in my mind. Because under
26 the statute, we have an obligation to put Petitioner to the burden so that the

1 whole time that we're looking to determine whether or not the evidence
2 establishes patentability or unpatentability, Petitioner bears the burden of
3 that entire process, regardless if the Patent Owner says anything at all.

4 And so when it comes to just simply asking, did they or did they not
5 put in evidence that establishes element A, that seems to me to be something
6 that's not really -- I mean, yes, maybe technically they identified that the first
7 time in the reply. But even if that were the case, we still have an obligation
8 to determine whether or not the Petitioner did or did not present evidence to
9 establish that element. So could you help me work with that? Where are
10 those boundaries? Where are those lines that we're supposed to draw?

11 MR. SMITH: Well, I think you're 100 percent correct, Your Honor.
12 It is our burden to show it. And we think we have shown it in the petition.
13 The specific element that they're alleging is missing, if you look at slides 46
14 and 47 of our slides, those are the portions of the petition that address that
15 limitation for Zeira, for Andersson and for Zeira.

16 Now, with respect to why an argument that's simply saying that an
17 element is not present in the prior art shouldn't be considered new. I think
18 it's because there's no reason why IV couldn't have presented this argument
19 in the Patent Owner Response and given us a chance to brief it fully, brief a
20 counter-argument fully in our reply. I think that's the reason for the policy --

21 JUDGE LANEY: Okay. So, and I understand that, but here's my
22 dilemma. And I had this in another case. What do I do when I get to that
23 element and I'm looking at the evidence, right? You presented evidence. I
24 look at that evidence. Now I look at that evidence and I say, I don't think
25 that Petitioner -- I don't think that evidence says what they say it says. Can I
26 not really look at that evidence anymore and say, Petitioner, that evidence

1 doesn't say what it says? Are you going to come back and appeal or am I
2 going to be wrong on appeal?

3 Because I looked at this evidence, said it doesn't say what it says.
4 Patent Owner didn't say boo about it until the reply. And so all of a sudden
5 now I'm in this scenario where I'm, you know, there's a panel being an
6 independent judgment that the evidence doesn't satisfy. But in order to do
7 that, we have to basically do what the Patent Owner asked us to do for the
8 very first time in the reply. And that's a long winded way. But you
9 understand the conundrum that I'm thinking about and I'd like to get your
10 input on that.

11 MR. SMITH: I understand Your Honor. I mean, don't get me wrong.
12 If Your Honor looks at the, you know, at the petition and finds that that
13 element is missing and that the evidence is not sufficient, that's, you know,
14 certainly you're not prohibited from doing that. But I think really what the
15 motion to strike is about is, you know, the fact that we have not had a chance
16 to correct any of Patent Owner's, you know, possible misconceptions. We
17 haven't had a chance to respond to those arguments.

18 And perhaps you'll point out to Your Honors, where, you know, how
19 the evidence that was presented in the petition should properly be read,
20 right? If there's a, you know, Patent Owner's mischaracterizing what was
21 said in the petition and we don't get a chance to respond, I think that's the
22 reason why a motion to strike is appropriate. Or why, you know, why it's a
23 mechanism at all in PTAB practice.

24 JUDGE LANEY: And in this instance, do you find that they -- that
25 the portion you're trying to strike -- I mean, I know you're trying to use this -
26 - we can come up with arguments -- But I guess my question is, do you

1 understand that there aren't any more -- saying the Petitioner did not satisfy
2 the burden with the evidence they presented? In other words, is there things
3 for you to respond to more than just saying, yeah, we did, and pointing us
4 back to exactly what you've already pointed us to?

5 MR. SMITH: Well, I think, I mean, they're using words. I mean, you
6 see, for example, on slide 33. I mean, they're characterizing the element,
7 you know, or the supposed gap as us never identifying a cognizable
8 allocation tied to a specific uplink resource used for the recited transmission.
9 Obviously, none of that is, you know, in the -- a lot of that is not in the claim
10 language, right?

11 So I mean, that's a characterization of what the claim means. If we
12 don't get a chance to, you know, respond to that and explain, okay, this is
13 actually what the claim means, and this is how our, you know, how what we
14 pointed to in the petition meets that, I think that's where the, you know,
15 where the prejudice comes in.

16 JUDGE LANEY: All right. Thank you.

17 MR. SMITH: Okay. So I think I'm going to shortcut things just a
18 little bit. But with respect to slide 33, the main point here, I think, is the --
19 is, you know, the last quote where surreply effectively acknowledges that the
20 argument's new. They refer to this missing element of this allocation gap
21 argument as a standalone matter, separate from the arguments in the POR.
22 And, you know, a quick review of the POR shows that that characterization
23 is accurate. Go to the next slide.

24 You know, as Scott described, there were two issues rated by IV in
25 the POR for the independent claims, and they were related to reasons to
26 combine Andersson and Khan and Zeira and Khan with respect to the

1 allocation element. And POR did not argue that the references, even when
2 combined, as proven in the petition, failed to teach the allocation of an
3 uplink resource. And that's precisely what IV improperly argues in the
4 surreply.

5 Going to slide 35. And in the surreply, the only, you know, the only
6 citations to the prior record, the reply, and the POR are completely unrelated
7 to IV's new argument. For example, the surreply cites page 44 of the POR
8 four times. And that page is related to the -- the concept of that page is
9 related to the power control indicator functionality of Andersson, not to an
10 allocation of an uplink resource. It also cites the page 8 of the reply 11 times
11 and that's related to -- that's just the introduction to our counter arguments to
12 the reason to combine arguments. Those are the only two citations to the
13 prior record that appear in the entire argument to surreply.

14 Going to slide 36. So their opposition to our motion to strike, they
15 also fail to identify where in the prior briefing the argument was presented.
16 It correctly characterizes the POR arguments as related to the reason to
17 combine and then correctly summarizes the surreply arguments as related to
18 an allocation defect that was not presented in the POR.

19 Now realize as we discussed, the Board's reluctant to strike arguments
20 from the record, but we believe it's appropriate here and we think that the
21 language from the trial practice guide actually counsels for that particularly.
22 And Your Honor, do you have any more questions or any of Your Honors?
23 All right. I think we'll reserve our remaining time for rebuttal.

24 JUDGE DROESCH: Okay. Thank you very much, Counsel.

25 MR. THEISS: All right. It wouldn't be a hearing between these
26 parties without some technology not acting up. That looks promising.

1 Yeah, there we go. Success. I apologize for the technical difficulty there for
2 a second, Your Honor.

3 JUDGE DROESCH: All right. You may begin whenever you're
4 ready.

5 MR. THEISS: Strangely enough, there's a lot about the patent that
6 both Intellectual Ventures and Tesla agree on. And Judge Laney, you got to
7 the heart of what this patent is about and what the claims are about. And
8 column 13 lines 17 through 19 of the patent really identify one of the main
9 issues that we're here to talk about.

10 JUDGE LANEY: When you say the patent, are --

11 MR. THEISS: Yeah, I believe the numbering is the same for both. I
12 was referencing specifically the '500 patent. The specifications are identical.
13 It recites a parameter --

14 JUDGE LANEY: Identical down to the line number as well. So if
15 you tell me the line number in '500, I'll be able to find that in the '153 as
16 well. I just --

17 MR. THEISS: I'm not 100 percent sure of that, Your Honor. I
18 apologize. Do you want me to pull the other patent or the confirmed line
19 number of the '153 since I have the '500 up?

20 JUDGE LANEY: No, I just want to indicate which one it is --

21 MR. THEISS: Okay. I'm sorry.

22 JUDGE LANEY: -- on the black and white, when I go back to and
23 look, you know, I don't know which one to go.

24 MR. THEISS: Absolutely.

1 JUDGE LANEY: I recognize I'll find the same information in the
2 other patent. It's just if all I have is the number, now I'm stuck looking,
3 okay, which one am I referring to.

4 MR. THEISS: Completely understood, Your Honor. I'll be clear
5 which patent number I'm referencing. In this case, I'm referencing the '500
6 patent. Specifically, column 13, roughly line 17. And it says a parameter
7 may indicate whether a UE is to use open-loop power control, closed-loop
8 power control, or a combined scheme. As you had a discussion with
9 opposing counsel about that limitation, specifically the claim language that
10 states whether accumulation is enabled or disabled.

11 And in the discussion with opposing counsel, there was almost an
12 agreement that accumulation is fundamentally equivalent or a major
13 component, which would be a more accurate way of saying that, of closed
14 loop. Because in a closed-loop system, you start with a value. The base
15 station then sends an indication to go up, to go down, or stay the same. That
16 is how a closed-loop system works.

17 As the patent makes clear, and I'm directing to the '500 patent again,
18 column 2, line 44. On column 2, otherwise it explains the difference
19 between the closed-loop and the open-loop systems.

20 JUDGE LANEY: Counsel, could you hold on for one second?

21 MR. THEISS: Yes, Your Honor.

22 JUDGE DROESCH: Yes. We're having some technical difficulties
23 with the connection with one of our judges, so we'll just take about five
24 minutes to see if we can get reconnected.

25 MR. THEISS: Your Honor, this particular configuration is cursed.

1 JUDGE DROESCH: Yes. I'm sorry to interrupt you. We'll take a
2 five minute recess.

3 (Whereupon, the above-entitled matter went off the record at 10:14
4 a.m. and resumed at 10:17 a.m.)

5 JUDGE DROESCH: Counsel, it looks like our problems have been
6 resolved with that technical difficulty. So feel free to begin when you're
7 ready.

8 MR. THEISS: It's nice to know it's just not me. So, Judge Laney, to
9 your question about these line numbers between the two patents, you are
10 correct. They are actually different. So I'll be absolutely clear to make clear
11 which patent I'm referring to. Just to reorient our conversation after the little
12 break there, looking at column 2, we're going to go line 16. And the patent
13 here in the background section is describing what an open-loop system is.

14 In the open-loop method of the inner process, a UE uses an SNRI
15 target value that is derived from the network and a signal to the UE. The
16 inner loop running in the UE attempts to maintain the SNRI. The UE uses
17 the information signaling as it monitors the received strength of signals it
18 receives to determine a power level. So in the open-loop system, it's the UE
19 that's making the determination.

20 Contrast that to the closed-loop system, going down in column 2,
21 roughly line 33. The inner loop derives the system to match the SNRI
22 targets by issuing transmit power commands from the network to the UE.
23 So what we fundamentally have here is a system where the UE is able to
24 make a determination of how much power to use, and the base station can
25 also send information to the UE to determine how much power to use.

1 And, Judge Laney, as you correctly identified, the patent specifically
2 recognizes that the open-loop system is able to address the fast fade
3 problem, because the UE can respond faster, because it's only looking at its
4 individual values to the signal loss that we'll talk about in a bit. It's able to
5 respond faster. Specifically, the compensation for this fast fade effect from
6 the open loop is discussed in the patent at column 11, line 47 of the '500
7 patent.

8 The ability of the open-loop component to compensate fast fading is a
9 function of the channel speed and the delay between the beacon time slots
10 and the uplink time slots. So fundamentally, we want the UE to be able to
11 do these things fast to address the fast fade issue.

12 Now, why I'm kind of belaboring this point is it fundamentally goes
13 into one of the issues that was being discussed with opposing counsel related
14 to the motivation to combine, and specifically what is taught in the Khan
15 reference.

16 So directing the Board to Petitioner's slide 23. As I said in my
17 opening, there's actually a great number of things that Patent Owner and
18 Petitioner agree on related to what's taught in the various technologies --

19 JUDGE LANEY: Counsel, real quick. Just on that note. It helps me
20 focus personally. So if I'm looking at your slides 2 and 3, and you have
21 independent claims 1 and 11 for the '153 patent, and claims 11 and 17 for the
22 '500 patent on those.

23 MR. THEISS: Yes.

24 JUDGE LANEY: And within that, you have claim language that's
25 highlighted in different colors, but the rest of the claim language is not
26 highlighted. Is it fair to say that what is highlighted by Patent Owner in its

1 demonstrative 2 and 3 represents what the disputed issues are about, and that
2 the other elements are not contested by Patent Owner? In other words, when
3 we're doing our analysis, the parts that you have highlighted are the things
4 we really need to focus on to resolve the dispute between the parties. The
5 things that are not highlighted are not things that need a whole lot of
6 attention, because they're not in dispute.

7 MR. THEISS: I think that was more related to where we have a claim
8 dispute, was what I was highlighting using the coloring. I believe it
9 identifies the specific elements. One element that is not specifically
10 highlighted that I do think is critically important, and it's one of the ones
11 we're going to be talking about today, is the and. Looking at slide 3, related
12 to the '500 patent, an allocation of an uplinked resource and a multi-level
13 transmit power control, TPC command. The and there is critically
14 important, but I believe the element is correctly identified.

15 Similarly, as related to the '153 patent, scheduling information and
16 power control. I believe the and power control relates into the physical
17 channel. We're identifying here that I believe the single physical channel is
18 a term that we do not agree on. We do agree on a great many things here,
19 but we do not agree on what a single physical channel is. I believe that's one
20 of the issues that we're looking for the Board's guidance as a decision, would
21 be a better answer, of what those terms actually mean. Did we lose Judge
22 Moore?

23 JUDGE DROESCH: Yeah, looks like we have. Let's take another
24 break.

25 MR. THEISS: We are cursed.

1 (Whereupon, the above-entitled matter went off the record at 10:23
2 a.m. and resumed at 10:23 a.m.)

3 MR. THEISS: Just to reorient, Judge Laney had asked me whether or
4 not only the highlighted portions on slide 2 and 3 of Patent Owner's
5 demonstratives were in dispute. I responded by saying that those are the key
6 critical points where we have claim construction differences.

7 But I believe another element that is in dispute in these patents,
8 particularly as it relates to disputed claim elements of a single physical
9 channel, is the and that appears, for example, related to the '500 patent, an
10 allocation of an uplinked resource and a multi-level transmit power TPC
11 command, I believe is also one of the matters that is sort of fundamentally in
12 dispute today. But it really ties into that understanding of what a single
13 physical channel is.

14 JUDGE LANEY: Okay. But there's no dispute that the prior art
15 discloses the user equipment, a transmitter, a receiver, a process that are
16 probably coupled to the transmitter and the receiver.

17 MR. THEISS: Absolutely, Your Honor. I believe what -- but
18 actually, I said there's a great many things that we were going to agree on. I
19 think Petitioner actually did a good job of distilling where the real dispute is
20 here. Fundamentally, the dispute boils down to, is a signal, a command, a
21 something, sent to enable accumulation? We firmly believe there is not.
22 And the second issue is whether or not the information is sent over a single
23 physical channel. Intellectual Ventures' position is it's not. And that's what I
24 was going to start our discussion with related to --

25 JUDGE LANEY: And in that issue, the first issue identified is
26 dispositive of the '153 patent in the Patent Owner's opinion. And then as far

1 as the '500, it's not dispositive of all the claims in the '500. However, the
2 second issue, if we were to find in the Patent Owner's favor, would be
3 dispositive of all the claims in both patents. Is that correct?

4 MR. THEISS: Yes, Your Honor. Specifically, dependent claims 12,
5 being an example where the accumulation enable concept comes in, in the
6 '500 patent. Yes, Your Honor.

7 So looking at Petitioner's slide 23, we have an annotation of Figure 5
8 from Andersson. And Petitioner has labeled the top row as a single physical
9 channel and then has annotated that the TPC command highlighted in blue
10 labels that a multi-level TPC command.

11 And then Petitioner suggests adding Khan's other bits to satisfy the
12 scheduling information. What's helpful about this diagram is you'll see how
13 there are lines that are going from the two ends, pilots and other bits, into a
14 single slot. Slot number I. So all of these things that the Petitioner has
15 correctly identified as a single physical channel are occupying a single slot.

16 Now, if we go to look at what is actually taught in Khan, so we go to -
17 - sorry, Exhibit 5 in paragraph 47. In this paragraph, Khan is teaching two
18 techniques for sending scheduling information and power control
19 information. It says, in order to support both TPC bits and scheduling
20 grants, dedicated MAC index transmission simultaneously, orthogonal
21 Walsh covers may be needed. As I said, we agree on a great many things.
22 Each one of the Walsh covers, channels, is a physical channel.

23 However, what Khan is expressly saying there, because they're
24 orthogonal, is there's two. Something can't be orthogonal with itself.
25 Therefore, it's not teaching sending it in the same physical channel, because

1 something can't be orthogonal with itself. Khan in paragraph 47 goes on
2 further to discuss. However, it --

3 JUDGE LANEY: Can you explain that a little bit further for me?
4 Pretend I'm a mechanical engineer, so I'm not quite as versed on the
5 cylindrical equipment products. But let's pretend that for a second and
6 maybe unpack what you just said a little bit more.

7 MR. THEISS: Yes, Your Honor. So orthogonal signals, the purpose
8 of using orthogonal signals is they won't interfere with each other. There
9 will be a sufficient amount of distance between the signals such that
10 information won't get commingled or messed up. You won't have
11 interchange of bits. The frequency won't overlap. There's lots of different
12 reasons. The Walsh codes are a specific set of configurations where you
13 won't have likely interference.

14 So to have them be orthogonal, they are going to be on different
15 physical channels. They're going to have different parameters that are going
16 to allow them to be transmitted simultaneously. And that's what Khan is
17 saying in that paragraph, is if you want to send both the power information
18 and the scheduling information, you can do it simultaneously. And you
19 want to do it simultaneously in this way where you use two different
20 physical channels.

21 And, Your Honor, our claim specifically requires a single physical
22 channel that has both the scheduling information and the power control
23 information. Then Khan moves on to an alternative embodiment. However,
24 it may also be possible to use time multiplexing -- I'm sorry, to time
25 multiplex the TPC bits and scheduling grant MAC index maybe, for

1 example, carry the TPC bits in some slots and the scheduling grant in one or
2 more of the remaining slots.

3 Now, if I can draw Your Honor's attention back to slide 23 of
4 Petitioner's demonstratives, what Khan would teach is that if the TPC
5 command is in slot I, the power control command would be in slot I plus
6 one, I plus two. It would be in some time-spaced command, which, as
7 identified by Petitioner here, correctly identified by Petitioner here, that isn't
8 the single physical channel. That is another instance of that channel.
9 They're different. Our point --

10 JUDGE LANEY: Let me make sure I'm with you. Because I think I
11 understand what you're saying. You have up there the petition, the -- I
12 forget which slide it is.

13 MR. THEISS: It's slide 23, Your Honor.

14 JUDGE LANEY: Yeah, slide 23. So you're saying, okay, you want
15 the first one that says pilot TPC command power control flag other bit.
16 That's a channel. And that's one channel that goes into a slot. And that is a
17 separate channel than a slot --

18 MR. THEISS: Yes, Your Honor. That is the way Petitioner has
19 annotated it. That's consistent with the way Dr. Lomp has explained it.
20 That's consistent with the way it's used. Dr. Lomp specifically has a similar
21 figure related to the three GPP standards in his declaration. Yes,
22 specifically.

23 JUDGE LANEY: So upon that, and you'll find what -- of slide 23 is,
24 then when you have a frame, frame 1 can have many different channels and
25 frame 72 likewise have many different channels.

1 MR. THEISS: I believe that's consistent with the way that Petitioner
2 has annotated the slide. Yes.

3 JUDGE LANEY: Okay. Thank you.

4 MR. THEISS: So fundamentally, Your Honors, we have -- as
5 illustrated by Petitioner here, we have a situation whereby it doesn't meet the
6 claim language for a single physical channel because it's either on -- using
7 different frequencies, different configurations related to the Walsh
8 spreading, or it's time spread out. So it is not meeting the claim limitation
9 because that's a different instance of the physical channel, particularly as
10 annotated by Petitioner.

11 JUDGE LANEY: But isn't Petitioner's point -- isn't Petitioner's point
12 that Khan teaches you can have the -- and the command in one channel?
13 And so --

14 MR. THEISS: That is Petitioner's allegation, Your Honor. I just don't
15 believe it's supported by the reference. What --

16 JUDGE LANEY: And that's what I want to dig into. But what
17 you're, and correct me if I'm wrong, what I'm hearing you telling me is that
18 Khan doesn't actually teach you to have scheduling and prediction and PPC
19 commands on one channel.

20 MR. THEISS: Correct, Your Honor. It teaches to either have them
21 on a different physical channel because it's using a different Walsh code, or
22 alternatively it teaches them to send them time-sequenced, time-spaced. So
23 those would be separate transmissions. If I send the information now or I
24 send the information five minutes from now or five milliseconds from now,
25 those are two separate transmissions.

1 JUDGE LANEY: Time-spaced would be represented by, it's in slot 1,
2 or the PPC command might be in slot 1, and the scheduling would be in slot
3 16, just as an example.

4 MR. THEISS: Yes, Your Honor. That is what paragraph 47 of Khan
5 expressly says. Yes.

6 JUDGE LANEY: Okay. Thank you.

7 MR. THEISS: So specifically, I then wanted to -- just give me one
8 second.

9 JUDGE DROESCH: We lost Judge Moore again. Let's take a short
10 break.

11 MR. THEISS: That's fine.

12 JUDGE DROESCH: Judge Moore, are you back? Do you hear
13 everything well on your end?

14 JUDGE MOORE: Yeah. I apologize for that. It seems like the VPN
15 is disconnecting repeatedly. It's hard to hear -- comes right back. So I'll
16 speak up if I think I missed anything, but otherwise don't wait for me.

17 JUDGE DROESCH: Okay. Thank you. All right, Counsel.

18 MR. THEISS: It's absolutely fine. It's still better than when Mr.
19 Bowser had to redo his entire argument because the court reporter lost
20 power. So that's at the high bar of technological problems that can happen.
21 So, Mr. Bowser, I cite you every time in my class about preparing for oral
22 arguments and what could possibly go wrong. And then last week -- two
23 weeks ago, we had my co-counsel not be able to get into the building, so this
24 is what live court is about. And I thank your patience and we'll get through
25 this.

1 So I'm directing the Board now to slide 7 of Patent Owner's
2 demonstratives. Specifically, if we look at the lower portion of it, we're
3 excerpting Figure 4, which specifically says in box 205, send transmit power
4 control TPC commands to raise, lower, change -- not change the power, but
5 transmit power. Judge Laney, you had a spirited discussion --

6 JUDGE LANEY: And you passed 206, right? You meant box 206 --

7 MR. THEISS: Yeah, I meant box 206.

8 JUDGE LANEY: Not 205.

9 MR. THEISS: I'm sorry. Yes. Yes, I apologize for that. Talking and
10 reading and thinking at the same time. Always complicated. But you had a
11 very spirited discussion with opposing counsel related to what accumulation
12 means and how it's used in the patent and what it fundamentally means.
13 And I'm going to try to make this as clear as possible in terms of what the
14 Patent Owner's position is with regards to accumulation.

15 If you use prior values and go up or down relative to those prior
16 values, that is accumulation. That is consistent with the way it is used in the
17 patent. It's specific to the discussion in the patent about how to reset those
18 values if they become stale. So I'll direct your attention, Your Honors, to --

19 JUDGE LANEY: But you agree that the patent's not -- I mean, it's
20 Patent Owner's position, the patent doesn't limit itself, or the claims don't
21 limit the claimed invention to any specific way in which it's doing the power
22 accumulation?

23 MR. THEISS: Absolutely not, Your Honor. As long as it is taking a
24 prior value, adding something to it to determine what the proper value is, it
25 is Patent Owner's position that that meets the requirements for accumulation.
26 The discussion of the history of the TPC commands in column 11 of the '500

1 patent, starting at roughly line 38, that says the history stored in TPC
2 accumulator may be stale, and in some circumstances the history may be
3 considered useful and is not reset.

4 Alternatively, the accumulated TPC history could be used to set the
5 uplink transmit power level, but with some exit power margins added to
6 ensure a clean start to the loop. Alternatively, the UE may decide to discard
7 the accumulated TPC history and to reset its default or value. The default or
8 initial value may be optionally based upon a received interference
9 measurement from the table.

10 So, Your Honor, what this is laying out is that the accumulation is
11 relative to a history. It's taking values that have existed at a prior time to
12 determine what to use in a future time.

13 JUDGE LANEY: Okay. So what I understood the petitioner to be
14 saying is in PCA 2, all it's doing is comparing whether or not the power is
15 the same as, less than, or more than. And based on that, it goes up a preset
16 number, or it goes down a preset number. And what I understand what
17 you're saying is that's different than what you just said, which is you're
18 adding or subtracting to a historical thing. I think that's kind of how they did
19 it, right?

20 MR. THEISS: Yes, Your Honor. I believe that is their position. I
21 just don't think it's a fair reading of what is taught in Baker, and I would
22 direct you to slide 8 of Patent Owner's demonstratives where we are
23 excerpting from Baker paragraph 23, which I believe is the paragraph that
24 encapsulates this.

25 It specifically says in paragraph 23 of Exhibit 1010, if all five TPC
26 commands are one, the transmission power increased by Delta TPC dB. If

1 all five TPC commands are zero, the transmission power command is
2 decreased by Delta TPC dB. Otherwise, the transmission power is
3 unchanged. Your Honor, if anything, that says what the command itself
4 looks like, not what the command does.

5 JUDGE LANEY: So what's Delta TPC in that excerpt?

6 MR. THEISS: I believe Delta TPC is the step size. So the command
7 would say go up one DB, go up two DB. I believe that's a configure on the
8 various standards. They set various ways to set what the step size is. So
9 fundamentally, Your Honor, I think as it relates to that issue, it
10 fundamentally changes what the command is to accumulate. It doesn't
11 fundamentally change the fact that you're accumulating.

12 As we lay out in our papers, it's a helpful analogy to the fact that
13 you're withholding money into your checking account from your paycheck.
14 So money is taken out, and it accumulates in your bank account. If you
15 don't make that deposit, that accumulated balance doesn't go away, and you
16 continue to accumulate it when you make further deposits to it.

17 Your final balance, which is what we are talking about here, is the
18 summation of all the prior values. That is accumulation. That's consistent
19 with the dictionary definition. That's consistent with us as humans
20 definition. That's consistent with the persons of ordinary skill in the art, I
21 believe actually on both sides, would agree that accumulation requires
22 accumulation over time. And the frequency that the accumulation is done is
23 a bit irrelevant here. And fundamentally, this accumulation concept
24 dovetails specifically into the closed-loop system.

25 So if we go into the specific elements themselves that are not really
26 being taught here. So we have, in Baker, we have this idea that we're going

1 to change the command from being one TPC up to being five TPCs up for
2 there to be an accumulation, an increase. It's still an accumulation, Your
3 Honor. It's still going to cause the value to go up or down.

4 You had a conversation with opposing counsel related to can a TPC
5 command be sent without there necessarily be accumulation. And I think
6 there needs to be a bit more understanding on that. A TPC value is only
7 going to tell you to go up, down, or stay the same. For it to be properly
8 implemented, you need to know where you're starting from. If you don't
9 have a starting point, if you don't have a history, going up, down, staying the
10 same doesn't really matter.

11 But what is germane to the patent and the limitations that are before
12 us right now is can you turn on and off this accumulation. And it's not there
13 in Andersson. It's not there in Baker. In both of those situations, both the
14 references always accumulate. There's no way to turn it off. Therefore,
15 there would be no reason to turn it on.

16 Now, turning to the Zeira reference, there's been quite a lot of
17 conversation related to the alpha value and who does the calculation of that
18 alpha value, and how that alpha value relates to being applied to both the
19 loss, the L factor in the equation that Counsel had put up, which is equation
20 four, and how that relates to the closed-loop system, which is the GN
21 component in the Zeira reference.

22 As our patent makes very clear, in the open-loop context, it is the UE
23 that makes the determination of what power to use to address fast fading,
24 things like fast fading, based on its signal loss that it's experiencing. And
25 that's consistent with what is being taught in Zeira. So specifically going to
26 Zeira, which is Exhibit 1004, I'm going to line 31 when it's discussing how

1 the weighting factor alpha is calculated. The weighting value alpha is
2 determined by the quality measurement device 114, which is the UE in
3 Petitioner's proposed mapping. And we think that's a reasonable
4 interpretation of what is being taught in Zeira.

5 Alpha is a measure of the quality of the estimated pathloss and is
6 preferably based on the number of time slots, D, between the time slot of the
7 last pathloss estimated and the first time slot of communication transmitted
8 by this transmitting station 52. So alpha is fundamentally a value that is
9 calculated by the UE. It is not a value that is received from the base station.

10 JUDGE LANEY: But let me ask you this. What I understand you're
11 saying is that alpha is a value that the operator of the network, in other
12 words, the master for the command, can zero out alpha. They can -- so in
13 other words, by sending the command that zeroes out alpha for the UE
14 device, they're, in essence, converting it from an open loop to a closed loop
15 or vice versa. I forget which effect it has. But regardless, you have the UE
16 device receiving information from the network that is telling it to zero out
17 alpha. And by doing that, it's either handling or disciplining the
18 accumulation.

19 MR. THEISS: Yes, Your Honor. I believe the section of Zeira you're
20 looking at, that's sort of the basis of your question, appears in column 7,
21 roughly column -- line 16, where it says, although the two algorithms have
22 only weighted the open-loop factor, the weighting may be applied to the
23 closed-loop factor, where both the open and closed-loop factors under
24 certain conditions.

25 The network operator may desire to use solely open-loop, solely
26 closed-loop power control. For example, the operator may use solely

1 closed-loop power control by setting alpha to zero. That's sort of the section
2 of Zeira that we fundamentally disagree on with Tesla on this matter.

3 The fact that the value is set to zero says nothing about where that
4 command came from. It could be an over-the-air firmware upgrade. It
5 could be a hard program on the SIM card. It could be a normal software
6 upgrade. It could be a transmission on a completely unrelated channel --

7 JUDGE LANEY: So let's evaluate that evidence. Why don't you help
8 me evaluate that evidence, and I'll tell you the way I'm thinking. When it
9 says network operator, that seems reasonably sufficient that that is an
10 operator from the network and not, as you're saying, locally at the UE
11 device. And why is that an incorrect understanding? What evidence do you
12 have to support that?

13 Because all we have -- I mean, frankly, your argument seems to be
14 simply evidence in saying we disagree with what it says. Then that's not
15 fair. We have a different interpretation of what it says. And what it says is
16 the network operator may desire to use solely open-loop or solely closed-
17 loop power control. For example, the operator may use solely closed-loop
18 power control by setting alpha to zero.

19 Now, it becomes important to understand what a skilled artisan would
20 understand network operator to be referring to. And even if you're correct,
21 they would understand it to be potentially many different things. Isn't your
22 argument undermined if one of those potential things reasonably is the
23 operator of the network through sending a signal that says set alpha to zero?

24 MR. THEISS: So let me answer your question in a couple different
25 pieces. When we're talking about the network operator, we're talking
26 Verizon, AT&T, T-Mobile. If you remember the time period, and even true

1 on many carriers today, to access the network, you have to get a physical
2 SIM card and plug that into your phone. GSM phones kind of pioneered that
3 way back in the day.

4 So if you're -- and without that SIM card, you can't access the network
5 operator's network. If the network operator wanted to operate in a purely
6 closed-loop system, they would hand out SIM cards that automatically tell
7 the phone to set alpha to zero. That would not be broadcast by the base
8 station over a single physical channel, which is the claim language here. If
9 we move to a more --

10 JUDGE LANEY: So is your point --

11 MR. THEISS: Yeah.

12 JUDGE LANEY: Just on that one, before we go to the next one, is
13 your point with that is that that's not an adjustable. When it's saying that the
14 network operator may desire to use solely open-loop or solely closed-loop,
15 you're claiming more of the fact, and correct me if I'm wrong, but the fact
16 that it says solely one or the other, which would indicate, look, we're not
17 switching. We're not doing a dynamic thing where we're changing based on
18 the conditions whether or not we want to do one or the other. This is
19 something that's prior to operation.

20 MR. THEISS: Correct, Your Honor, and I think that's very consistent.
21 If it had been the alternative interpretation, we would expect to see
22 something very similar to the paragraph that we talked about prior in column
23 6, where when we're talking about the alpha value that is calculated by the
24 UE, we have a recitation of equations and mechanisms for how that
25 calculations are determined.

1 If that information was being sent by the base station, the equations
2 that are being presented here don't make sense because the base station
3 doesn't know about the line loss and can't address the fast fading that is
4 specific to the UE, as an example as relates to the alpha parameter that's
5 described with regard to equation 4. Since we don't have that sort of a
6 discussion about how this potentially could be adapted, and what we do have
7 specifically in the language that we just read through is the operator itself
8 may decide that, yeah, we're only going to exist in the closed-loop
9 environment.

10 So I'm going to hand out a SIM card that just only says phone, set
11 alpha to zero. Or alternatively, in the more modern context where we have
12 eSIMs, you can just send a firmware update to say, look, if we use the open-
13 loop one, we infringe a patent. So we're just not going to use open-loop
14 anymore, and just set alpha to zero and set that away. That would also be
15 another way this could be potentially implemented. But there's nothing in
16 here --

17 JUDGE LANEY: Are you relying on the fact that it says solely and
18 it's being kind of binary in the way you're explaining it? Because even what
19 you're saying with, again, the operator, it seems as though they send a signal
20 that says zero out alpha. I'm just saying that theoretically. I'm not saying
21 this is what they are teaching. I'm just, it seems like that's something that an
22 operator could do. Let's say in hindsight somebody wanted specifically to
23 do that. That seems like something that somebody could do specifically.
24 I'm not saying that's what it says. So I'm just trying to get --

25 MR. THEISS: Absolutely. It's something you could absolutely do,
26 Your Honor. And I believe that's fundamentally what the patent is directed

1 to is that ability that we talked about very early on is to allow something
2 from the base station to send over a single physical channel to the UE to say,
3 yeah, use closed-loop, use open-loop, or use a combination thereof.

4 JUDGE LANEY: And just so the record is clear, when you say the
5 patent, you're not referring to the Zeira patent. You're referring to --

6 MR. THEISS: Yes, I'm referring to the two challenged patents here,
7 the '500 patent as well as the '153, on being cognizant of the fact that the
8 feature related to the accumulation only appears in the dependent claims, as
9 we previously discussed.

10 So I just want to touch briefly on the issue related to the motion to
11 strike. I believe the motion, the fact that the motion to strike was filed
12 fundamentally represents one of the disputes that we have between
13 Petitioner and Patent Owner here. I keep saying we agree on a lot. This is
14 something we don't agree on.

15 We have been arguing from the jump that a person of ordinary skill in
16 the art would not combine these references. They would not look to
17 combine a dedicated channel that is taught in some of the references to a
18 shared channel that is taught in something like Khan. They wouldn't look to
19 combine those.

20 They wouldn't cherry-pick from Khan saying, let's transmit these
21 things separately. Let's put them -- let's take part of the teaching of it. It
22 says we should transmit them separated by time or separated by frequency.
23 We're just going to ignore that teaching. We're going to take that, and we're
24 going to put that together.

25 So what we're doing, and we've been doing from the very beginning,
26 is saying what Petitioner has done is they've decomposed the invention into

1 being small technical -- well, they'll say it is small technical problems. But
2 the only reason a person of ordinary skill in the art fundamentally would
3 want to solve all of these small technological problems without a roadmap,
4 they don't give you anything.

5 The only roadmap that exists to get to the solution that is specifically
6 called out in our patent is by using our patent as a roadmap, which is
7 fundamentally impermissible hindsight. And in argument 1, what we are
8 doing here, perhaps imprecisely in our language, is just highlighting how in
9 response to the bodily compatibility argument, which is not what we are
10 arguing. We are saying that taking in totality all of these small out-of-
11 context teachings being bolted together would not result in our invention.

12 What we are saying here in our surreply that appears to be
13 objectionable, and I'm actually going to read it from the surreply itself in the
14 objectionable section on page 3. The POR already explained that the
15 standards-driven reason this matters in the WCDMA architecture Andersson
16 describes uplink transport channels related configurations were sent semi
17 statically through the RRC signal originally at the RNC, while the node B
18 handled fast power control.

19 By contrast, Khan's scheduling grant mechanism arises from a
20 different architecture built around base station centric slot-by-slot
21 scheduling. Petitioner's reply does not cure the allocation defect. It merely
22 restates allocation of the uplink resource and the TPC command would be
23 transmitted on Andersson's control channel based on Khan. But calling
24 something an uplink channel grant does not establish that it allocates any
25 defined uplink.

1 Your Honor, that is what we have been arguing from the jump, is that
2 you would combine these things. And if you were to combine them, you
3 wouldn't get our result. There's nothing new here. It might have been
4 expressed in slightly different language, but that is fundamentally what we
5 are talking about here, is they are very different technologies. They pull in
6 different directions. And the only reason you would ever think to combine
7 them would be to use our patent as a roadmap, as a guide.

8 So that's where we kind of stand on this issue, Your Honor, is there's
9 really two things that we need you really to decide, is what is meant to
10 enable accumulation. Patent Owner's position, very succinctly, is it has to
11 be turned on, it has to be turned off. There has to be a way to make it go
12 away.

13 As it relates to the term physical channel, a physical channel, as we
14 talked in great deal about, is the two things are they sent on that same
15 channel. If they are sent on different channels or at different times, that does
16 not meet the claim language. The claim language specifically says on a
17 single physical channel. The word single there has to have meaning.

18 JUDGE LANEY: Your point right there, you say if they are sent on
19 different channels or different times, and what that kind of leaves open or
20 ambiguous is that you are suggesting that you can have the same channel at
21 a different time. And what I understood you to be saying earlier is that that's
22 not true. If you have one channel and then later in time something else,
23 that's a different channel.

24 MR. THEISS: Yes, your understanding is correct in both
25 circumstances. And I didn't appreciate the difference between what you
26 were saying, and I'll try to make it as clear as possible. There are different

1 instances of having the same frequency encoding as an example. That
2 would be a different instance of it later in time. So for it to meet the claim
3 limitation, it has to be at the same time. It has to be a co-carriage, I believe
4 is the term that we use in our briefing.

5 JUDGE LANEY: In other words, in one sense, if you're talking about
6 a channel, a channel in one sense is a set of frequencies for the
7 communicating the information, but you're saying that's not really what --
8 we're not just talking about the fact that it's using the same frequencies.
9 We're talking about the fact that the channel in the context of the claims is
10 something a little bit different, and that it's that specific, I don't know --

11 MR. THEISS: Yes, Your Honor. I think I can present you with an
12 analogy that will be quite helpful here. At the beginning of this hearing, I
13 was asked how much time I wanted to be allocated. That was about an hour
14 or so ago, and I requested 45 minutes for my case-in-chief. That was my
15 allocation.

16 Now, I often don't have this problem as a loud speaker, but you
17 probably hear this in many of your hearings, during the hearing, you'll ask
18 someone to speak up because the mic isn't picking them up. That's a power
19 control command. It's very different for me to be allocated 45 minutes about
20 an hour ago and be told to speak up now than it is for those to be transmitted
21 together. Was that helpful to you, Judge Laney?

22 JUDGE LANEY: Well, I don't know about that, I'll tell you. You can
23 tell me if you think it was helpful. What you're saying is an hour ago, you
24 sent a command that said, I want 45 minutes?

25 MR. THEISS: And Judge Droesch was kind enough to grant it to me.
26 Yes, she can be the base station.

1 JUDGE LANEY: And then during your 45 minutes, you sent another
2 command or somebody sent you a command saying, hey, I can't hear you.
3 Speak up. You're saying those are different?

4 MR. THEISS: Absolutely, Your Honor. Where our invention, using
5 our analogy, would be, if in my scheduling order I was told, since I've
6 appeared before you before, you told me you have 45 minutes and make sure
7 you talk slowly, which would be my personal malady instead of being told
8 to talk up. But, yes, if the commands were given at the same time, that
9 would meet the claim language. However, if they're set in time, it does not
10 meet the claim language. As I see, I've come up on my time. Are there any
11 further questions from the Board?

12 JUDGE DROESCH: It doesn't look like it. Thank you.

13 MR. THEISS: Thank you. All right. Before we begin rebuttal
14 arguments, we're going to take a ten-minute break. So please return back
15 about 11:12 approximately. Thank you.

16 (Whereupon, the above-entitled matter went off the record at 11:02
17 a.m. and resumed at 11:12 a.m.)

18 JUDGE DROESCH: All right. So we'll begin again. Since due to
19 the interactive nature of our hearing today, as well as all of our technical
20 difficulties, we'll be giving each party an extra eight minutes for their
21 rebuttal. And so whenever counsel for Petitioner would like to begin, go
22 ahead.

23 MR. JARRATT: Thank you, Your Honor. Apparently that froze my
24 laptop.

25 MR. THEISS: We're cursed.

1 PARTICIPANT: This is Charlie from the VTT team. Judge Moore,
2 would you please say hello or anything, just to make sure that the video
3 appears large on the monitor. It might be --

4 JUDGE MOORE: Yeah, hello.

5 JUDGE DROESCH: There we go.

6 JUDGE MOORE: There we go.

7 MR. JARRATT: All right. We're back in business here.

8 MR. THEISS: The gremlins are not invited to our next hearing.

9 JUDGE DROESCH: No. Don't feed them after midnight.

10 MR. JARRATT: All right. Well, it's not showing on the other screen,
11 but Your Honor, I'll just simply announce the slides and where am I pointing
12 to in the record.

13 JUDGE DROESCH: Thank you, Counsel. Go ahead.

14 MR. JARRATT: All right. So let's first go to slide 4. And this has
15 the claim language at issue here. And on the left side is the '153 patent
16 claim 1. It has in yellow, it's this receiving indication language. And I just
17 heard IV's counsel state the dispute is whether accumulation is enabled or
18 disabled, whether it's toggled on and off, right? And I'll note that that's not
19 actually what's claimed. The claim simply says receive an indication that
20 TPC command accumulation is enabled.

21 JUDGE DROESCH: All right. We might have lost Judge Moore
22 again. We'll give him a minute to pop back on. All right. There we go.
23 Looks like he's back.

24 MR. JARRATT: All right. So going back to the claim language in
25 yellow on slide 4. So it simply says receive an indication, right? It doesn't
26 say toggle accumulation on and off. It doesn't say receive a command to

1 enable accumulation. It simply says receive an indication. So in the Baker
2 ground, if Your Honors decide that accumulation is always enabled, if PCA
3 equals one or PCA equals two, right? Both of those flags enable
4 accumulation.

5 Well, both of the PCA flag is still an indication that TPC command
6 accumulation is enabled because when the UE receives that PCA flag, it's an
7 indication to it that it's going to be accumulating TPC commands, right?
8 And that's all the claim requires.

9 All right. So sticking with accumulation, if we go to the '153 patent.
10 If we go to that same portion, column 13, that IV's counsel pointed to,
11 column 13 in the '153 patent, starting on line 18, column 13, line 18, a
12 parameter may indicate whether UE is to use open-loop power control,
13 closed-loop power control, or a combined scheme. And that's what they're
14 pointing to as accumulation being enabled and disabled.

15 Well, the Zeira reference says exactly that. The Zeira reference
16 mirrors that language exactly. That's what Zeira is doing. It's enabling
17 closed-loop power control, enabling closed-loop power control, to turn
18 accumulation on and off. So --

19 JUDGE LANEY: Can you repeat that slide? I'm sorry.

20 MR. JARRATT: Yes, that is in the '153 patent, column 13, line 18.
21 And that's the language. A parameter may indicate whether UE is to use
22 open-loop power control, closed-loop power control, or a combined scheme.
23 And if we go to slide 16. If we go to slide 16, this is the slide that has the
24 language from Zeira in it. It says that the network operator may desire to
25 use solely open-loop or solely closed-loop power control. So that mirrors

1 exactly how the '153 patent defines accumulation according to Patent
2 Owner.

3 JUDGE LANEY: And can you address their point, though, that --
4 well let me ask you this question. We dispute what Patent Owner's position
5 is that you can set it to use solely open-loop or solely closed-loop without
6 receiving any indicator or signal from the network.

7 MR. JARRATT: That may be possible, Your Honor. But the portion
8 of Zeira, the disclosure of Zeira we're relying upon, is when the network
9 operator sets it. And I agree --

10 JUDGE LANEY: Hold on. That's the dispute. I guess the reason I
11 ask that is because it sounds like it's not necessarily the case that a signal is
12 sent to cause it to be open-loop or closed-loop. There is an alternative way,
13 and that would seem to suggest that Petitioner would have the burden to
14 establish that, in fact, a signal is sent.

15 It doesn't have to be through circumstantial evidence. You'd have to
16 close that gap to explain why one skilled in the art would understand that in
17 the context of Zeira, that it was known or there was a reason that somebody
18 would send a signal versus another way of doing it, which is, as the Patent
19 Owner points out, is a card that simply sets it at the UE device, to either be
20 open or closed-loop.

21 MR. JARRATT: No, I totally agree, Your Honor, that Zeira does not
22 explicitly say sending a signal from the base station to the UE. We're on
23 board, and that's why we brought in the Baker reference to create a
24 combination. And what that combination does, it says, a POSITA reading
25 the Zeira reference, it says the network operator could sit, you know,
26 control, power control this way, set it. That when a POSITA reads that, they

1 find it obvious that a signal could be sent to do that, that setting. And the
2 Baker reference says, those type of signals were very conventional and
3 commonplace, and thus a POSITA would find it obvious.

4 JUDGE LANEY: But let me push back about that a little bit, because
5 what Baker says is not -- let's just, I mean, for here, hypothetically, you have
6 a stronger ground with Ground 3 than you do with Ground 1, with relying on
7 Baker to send a signal that turns on and off, which hypothetically, it doesn't
8 send a signal that says enable or disable the TPC accumulator, right? Then
9 doesn't that affect your argument that Baker would support the notion that
10 you would send a signal to either turn on or disable the TPC accumulation?

11 MR. JARRATT: So, Your Honor, we are actually using the Baker
12 reference for a completely different disclosure than the enable and disabling
13 power control portion in the Andersson ground. The Andersson ground, and
14 so --

15 JUDGE LANEY: I understand the Andersson ground. I'm talking
16 about what you just said now. I thought what you just said now is you're
17 relying on Baker to evidence that you can send a signal that has, at a
18 minimum, I think, at a minimum you've established Baker has an effect on
19 TPC accumulation. But the question is, does simply sending a signal that
20 indicates it has an effect on TPC accumulation support in Zeira the notion
21 that a skilled artisan would have known to send a signal that chooses
22 specifically between open loop or closed loop?

23 MR. JARRATT: So the Zeira reference, it has explicit disclosure that
24 you're turning on and off open loop and closed loop, and the entity that's
25 doing that is the network operator. So the only thing missing, Your Honor,
26 is how does that signal get from the network operator to the UE? And we

1 bring in Baker. And this is, if we look at Slide 18, we're citing to the
2 background of Baker for the general ideas that there's basic types of
3 communication between the base station and the mobile station, right?

4 And then one of these types of basic types is control information, and
5 control information can enable power control. So it's this disclosure in
6 Baker, not the other combining TPC commands, et cetera. This is this
7 simple background broad-based knowledge of how does a base station and
8 UE communicate? Well, they do it using signals. And so that's the portion
9 of Baker we're relying on to show that it would be obvious that in Zeira, a
10 network operator could -- it would be obvious for them to send a signal to
11 set this alpha to zero.

12 JUDGE LANEY: Does Zeira tell us why -- what motivates the
13 operator to choose between solely loop and solely closed? I'm focusing on
14 this solely because it seems to be -- by adding that word solely, it seems to
15 be teaching at all times you're going to do one or the other. It doesn't seem
16 to be suggesting a dynamic nature to it, which is what I think the whole
17 point of the '153 and the '500 patents are, is that it's a dynamic choice
18 between whether or not you're going to use the TPC accumulation or not use
19 the TPC accumulation.

20 MR. JARRATT: Your Honor, Zeira is all about this idea of combined
21 open-loop and closed-loop power control. And it has this equation that we
22 looked at earlier that it can -- both closed-loop and open-loop, both factors
23 impact the power control. And you can weight each factor differently. If
24 you want more closed-loop or you want more open-loop, you weight them
25 separately.

1 You can also turn one off, turn the other one off, use them
2 independently. Zeira discloses all of those things. So it's a dynamic system
3 just like the '153 patent. The '153 patent is just later in time. Zeira was first
4 and had this idea of combined and using them solely or in combination, and
5 the '153 patent was issued later.

6 JUDGE LANEY: And I appreciate that. Thank you for the point.
7 But when we're talking about Zeira's column 7, 16 through 22, we're adding
8 a layer of manualness to it. Like this is an operator, this is a person. And so
9 are you suggesting that a person is going to sit there and watch individual
10 phones to make a determination about whether or not that person is going to
11 make a signal telling that individual particular phone out of the hundreds of
12 thousands of phones, you are going to be solely closed-loop or solely open-
13 loop? I mean, that seems to be what you're suggesting that a skilled artisan
14 would do.

15 MR. JARRATT: Your Honor, I think Zeira is not using the term
16 network operator as a person necessarily. I think it's as the network
17 operations algorithms or equipment that are controlling how the different
18 UEs. I think it would be impractical for a person to do that. So I don't think
19 a POSITA reading this would understand it as a person controlling each
20 phone individually.

21 JUDGE LANEY: And they just happened to say network operator
22 versus --

23 MR. JARRATT: Yeah, I think it's just using the term generally. Is
24 that something from the network can control based on conditions whether
25 you only use open-loop or only use closed-loop? And it's really we're
26 relying upon this for the fact that you can turn it on and off and you can do --

1 that signal or that control can come from the network. And Baker would be
2 even obvious to send a signal from the base station to do that. That's the
3 combination.

4 And, again, I will note that in the Patent Owner Response, Patent
5 Owner did not dispute the combination of these two references on that point.
6 They only disputed the teachings of Zeira.

7 All right. Let's now move to Slide 4. Let's go back to the claim
8 language again. So IV's counsel also said various times that if you send --
9 I'm now referring to this single physical channel limitation. And IV's
10 counsel mentioned several times that if you send this information, the
11 scheduling information, the TPC commands at different times, even though
12 they're on the same physical channel, that does not meet the claim.

13 And I'll just point out that the claim is not so narrow. It simply says
14 on a single physical channel, scheduling information and power control
15 information. And so it doesn't say they must be sent at the same time. It just
16 says the same physical channel. And so if you indulge me with my own
17 simple analogy, if you have a radio station that's one physical channel, you
18 can send songs sequentially over time, but they're still being sent on the
19 same radio station.

20 And that's all the claim requires. Same physical channel. It doesn't
21 say timing. It doesn't say same physical channel instance. That's another
22 word Patent Owner's counsel used. It just says same physical channel. And
23 that could be at different times in different time slots.

24 And if you actually turn to Slide 22, if I can get there. This is Slide
25 22. This is a portion of Patent Owner's response. And they say,
26 accordingly, in this embodiment of Khan, and they're referring to Figure 5,

1 say TPCs and scheduling grants, while sent on the same physical channel,
2 using time multiplexing, they're sent in separate slots. So we all agree
3 they're sent on the same physical channel. It does not matter that they're sent
4 in separate time slots, because that's still the same physical channel.

5 And this is actually based on Dr. Lomp's declaration testimony. In
6 both his Exhibits 2005 and 2016, he submitted two declarations. He says the
7 same exact thing of the TPCs and the scheduling grants are sent on the same
8 physical channel. And I should correct, they say same shared physical
9 channel. That's actually not correct in Khan, like we went through before,
10 that a MAC index, which is the physical channel, that's sent to a unique
11 active wireless unit. So they're not actually sent on the shared channel.
12 They're sent on a dedicated channel, just like in Andersson.

13 And speaking of Andersson, if we go to -- let's actually go to
14 Andersson reference. If we go to Andersson --

15 JUDGE LANEY: The Andersson patent --

16 MR. JARRATT: Yes, let's go to the Andersson patent, and this is
17 Exhibit 1009. And if we look at column 9, starting on line 11 or 12, the one
18 that starts with Figure 5. So this is describing Figure 5, and this is the
19 embodiment that we relied upon. And it says it illustrates a sample power
20 control message format that may be used in accordance with an example
21 embodiment of the present invention.

22 A dedicated physical channel, the DPCCH, that's what we spoke about
23 earlier, is shown, which is divided into 72 frames corresponding to 720
24 millisecond recycled time period. Each 10-millisecond frame is made up of
25 16 time slots, lasting 0.65 milliseconds. And each DPCCH time slot may
26 include different information.

1 So it's saying the DPCCH has different time slots, but it's still one
2 physical channel. There's one physical control channel. It's made up of
3 different time slots. Information is just sent over time, and that is how a
4 POSITA would understand a physical channel that could send different
5 information in different time slots. And that's just what's claimed, Your
6 Honor. It does not say send the information at the same time.

7 But even if it did, if we go to slide -- in Andersson, I think it's the
8 slide of Andersson. Let's go to Slide 23. So the combination is, you know,
9 using this other bits concept to send the scheduling information. Even if the
10 claim required they be sent at the same time, Andersson, the top row, that is
11 within one time slot. And so in the combination, the scheduling information
12 and the TPC commands are being sent in the same time slot at the same
13 time. So even if the claim required that, which it doesn't, the combination
14 would still meet it.

15 So at the end of the day, all of the elements are explicitly shown in the
16 art, and there would be motivation to combine the references as Dr. Kotzin
17 explained. If there's any other questions, no more -- excuse me. If there's no
18 more questions, I yield the remainder of my time.

19 JUDGE DROESCH: It does not look like there's any additional
20 questions. Thank you, Counsel.

21 MR. JARRATT: Thank you, Your Honor.

22 MR. THEISS: One second, Your Honor. Technology actually
23 worked on the first plug-in. We must be getting towards the end of the day.

24 Opposing counsel just directed the Board's attention to column 13 of
25 the patent. Strangely enough, the citations actually work for both the '500
26 patent as well as the '153. Specifically, Counsel directed attention to the last

1 sentence that we previously read, a parameter may indicate whether a UE is
2 to use open-loop power control, closed-loop power control, or a combined
3 scheme. What we haven't talked about is the immediately preceding
4 sentence that I think is really important.

5 For example, a node B or an RNC may implement with a new
6 parameter, either included in a signaling command or a broadcast message,
7 where the new parameter instructs a UE to enable or disable the setting of
8 uplink transmit power level based on both the pathloss estimation and the
9 TPC commands. Fundamentally, what we have in the invention is the base
10 station needs to tell the UE what to do.

11 And when we go and look at what is taught in Zeira, we see
12 something very different. As we talked about with regard to Zeira, when it
13 talks about the alpha parameter, it's specifically talking about a calculation
14 that is done by the UE. It is not done by the base station, and it's not done at
15 a level higher at the network operator.

16 Now, Judge Laney, you've asked opposing counsel about network
17 operator, and it is not Patent Owner's position that it's a physical person. As
18 I explained to you during my case-in-chief, it is Patent Owner's position that
19 the network operator is a Verizon, is a T-Mobile, is something that operates
20 at the radio network controller level. It is the people who we spend our \$50
21 a month to make sure we have cell phone service.

22 But what we see in the reference is when we're talking about how the
23 UE is going to go about the discussion of calculation of the alpha parameter,
24 we have equations, we have a discussion of how it's going to be done based
25 on the delays in the frames. But when we look at the one embodiment, the

1 one paragraph, none of the equations in Zeira reference this embodiment that
2 is posited in the section that we've been talking about.

3 JUDGE LANEY: Real quick, your point about the operator, that it's
4 not an individual person, it's Verizon, it's AT&T, whoever. But I think your
5 point is that the operator is not the base station making the determination.

6 MR. THEISS: 100 percent. And it's not being done dynamically,
7 which is exactly the whole point of our inventions here, Your Honor, as we
8 talked about. It's that under certain circumstances, the patent makes very
9 clear, closed-loop is the optimal solution. In other circumstances, open-loop
10 is the optimal solution. And in a third set of circumstances, it's some
11 combination thereof. And what the invention does is it allows for those to
12 be toggled on and off.

13 Now, there was a discussion with opposing counsel who just stood up
14 here and said that the claim doesn't require a toggle on and off. But the
15 claim does expressly say, is enabled. If we look at what the claims say
16 specifically, going to Patent Owner's demonstrative Slide 2. So look at the
17 method claim, being Slide 11. Receiving by the UE an indication from a
18 network device that transmit, power, control, command, accumulation is
19 enabled. Is enabled has to have some meaning, Your Honor.

20 If is enabled has no meaning, if you didn't have the capability to
21 disable it, well, then why would that limitation be there? Is enabled would
22 be completely superfluous. And what the claim --

23 JUDGE LANEY: Well, isn't it more that it's a command that is
24 enabled? I guess I take your point, but I just -- an indication that the TPC
25 command accumulation is enabled. Okay. So the command, that's just
26 referring to the fact that what's coming from the base station is a command?

1 MR. THEISS: It's the TPC command, yes, Your Honor. I don't think
2 there's much of a dispute between Patent Owner and Petitioner as to what a
3 TPC command is. It's that command that comes from the base station that
4 says go up one delta, go down one delta, or stay the same. Where we --

5 JUDGE LANEY: From my understanding in your patent, the
6 commands come regardless. And as I understood the patent, it's just -- it
7 ignores the command when it's not using that particular technique. It's using
8 a different technique or it's guesstimating based on its own information of
9 the UE. But the, and correct me if I'm wrong, I just -- the patent still
10 describes that those commands are still coming when the device is no longer
11 listening to them. Is that wrong?

12 MR. THEISS: I don't think that's inconsistent with what the Patent
13 Owner has said in several of the embodiments. Yes, Your Honor. Whether
14 or not it's listening or not listening, I think the more important thing is it's
15 not using them. It's not actually implementing the closed-loop accumulation
16 that we've been talking about when you're going to use the current level,
17 add, subtract, to determine the power structures there.

18 Yes, the base station might be broadcasting it, perhaps, but the key
19 element here is there was a command that was sent from the base station to
20 the UE that said, do not use accumulation, or counterly, as the claim lays it
21 out, use accumulation. That we are operating in an environment when we
22 need the closed-loop component.

23 And when we look at what's going on in Zeira specifically, we do not
24 have anything that is received related to the alpha value. The alpha value is
25 calculated by the UE. We say throughout our papers that the alpha value is
26 calculated by the UE and is not received. Opposing counsel said we do not

1 dispute that it's taught by the combination. We absolutely don't. It's not
2 received. There is no equivalent of an alpha value that is received. We
3 argue that throughout our papers and maintain it.

4 The mere fact that Baker is being relied upon for the fact that base
5 stations communicate with UEs, I don't think is a point that is in dispute. I
6 don't even think you would need a secondary reference for that point that the
7 base station communicates with the UE, and there's some sort of a
8 handshake. But that isn't what this dispute is about. What the dispute is
9 about is a command, a signal sent from the base station to the UE to tell it to
10 turn on accumulation. It's not there in Zeira. Adding Baker's generic
11 teaching that base stations talk to UEs doesn't make it appear in Zeira.

12 And if we look at the other grounds, if we look at the Andersson,
13 Baker, Khan grounds, well --

14 JUDGE LANEY: Just real quick, just addressing their argument, but
15 it says an indication that the TPC command indication is enabled. Is there
16 any difference between simply saying an indication something is enabled
17 and a signal that enables?

18 MR. THEISS: I'm sorry, I didn't understand your question.

19 JUDGE LANEY: Yeah, that's fair. So I understand Petitioner
20 basically saying it doesn't require necessarily that you send a toggle that says
21 go on, go off. It just needs something that indicates that the TPC command
22 accumulation is enabled. I guess what they're suggesting from that is that if
23 you send an indication that something's enabled, that doesn't necessarily
24 require it to turn something on or off.

1 MR. THEISS: As best I can understand the position, is that if you're
2 sending a TPC command to go up, you have to be enabled for that TPC
3 command to go up to mean something. Is that what you're saying?

4 JUDGE LANEY: Well, I'm not sure. I'm just, I'm kind of -- I'm
5 teasing out this thing that they're highlighting this, that it doesn't expressly --
6 in other words, if it had written in hindsight knowing what we're fighting
7 over, they may have said, send a signal that enables the TPC command
8 accumulation, right? But that's not what we have before us. What we have
9 before us is something that says an indication that the TPC command
10 accumulation is enabled. And I guess the question is, is an indication that
11 something is enabled the same thing as making sure something is enabled?

12 MR. THEISS: Your Honor, that's an interesting question. Standing
13 up here at the podium to answer your question, I don't see there being a
14 material difference between the two wordings that you presented here. Is
15 that you have to show -- send some sort of -- you have to communicate in
16 some manner. I'm not trying to use the words indication or signal or
17 command. There has to be something that is communicated from the base
18 station to the UE to say, do accumulation.

19 JUDGE LANEY: And that's the question. But it says, I guess,
20 doesn't the wording say you just have to indicate that you can do
21 accumulation?

22 MR. THEISS: Yes, but that indication has to be received that you're
23 permitted to do it, yes. But the key issue there is something has to be
24 received by the UE from the base station that says that it's permitted,
25 enabled, allowed. I'm trying to use different words to allow us to have a
26 discussion on that. But that's fundamentally what that dispute relates to,

1 Your Honor. And I think we all understand each other's positions on this
2 matter.

3 The Patent Owner's position as it relates to accumulation, particularly
4 the claim language that says, receiving by the UE an indication from a
5 network device that transmit power control command accumulation is
6 enabled requires a transmission from the base station to the UE to say use
7 this type of accumulation or perform accumulation. Use closed loop. That
8 is not transmitted in Zeira. That functionality is not in Andersson in
9 combination with Baker in combination with Khan.

10 And as we talked about before, is that even if you were to bolt
11 together Andersson, Baker, and Khan, there's really no reason to do that, you
12 would still have this fundamental issue of whether or not this information is
13 being sent in a single physical channel. And that's really where we come
14 down to, Your Honors, is what is meant.

15 You said in your institution decision that this case was going to come
16 down to claim construction, and I believe you were prophetic. It really
17 comes down to what the person of ordinary skill in the art at the time of
18 invention would have understood receiving by the UE an indication from the
19 network device that transmit power control command activation is enabled.
20 And then subsequently, what does it mean to receive by the UE on a single
21 physical channel from the network device, scheduling information and
22 power control information? That is what the dispute is about.

23 JUDGE LANEY: Last question I have on this and we can move on to
24 the next topic. I think we have dealt with this one. But under the claims, is
25 it still the base station that is dictating whether or not you're going to be
26 using the TPC command accumulation or not? Or is it one of those things

1 that the UE on its own can decide, I'm no longer going to use the transmit
2 power command accumulation, and then later the base station can override
3 that dispute by the UE and make it start listening to the commands again?

4 MR. THEISS: That's an interesting hypothetical, Your Honor. I
5 believe, as I understand the claims, is it relates to the base station tells the
6 UE what to do and the UE complies. Without any further questions from the
7 Board, I'm prepared to stand on the papers.

8 JUDGE LANEY: You don't want to address their argument regarding
9 the next issue?

10 MR. THEISS: Regarding their interpretation of their Slide 23, we can
11 talk about it. We can go through sort of a rehash there about how they've
12 labeled it on Slide 23 of Petitioner's demonstratives. I think we had a
13 sufficient conversation there.

14 JUDGE LANEY: And what about, I guess -- all right. That's fair.

15 MR. THEISS: Yeah. But as it relates to the slot distinction, I would
16 direct you to Dr. Lomp's discussion on this in his declaration on 2016. He
17 talks extensively on why there's this co-transmission requirement. Dr. Lomp
18 can speak to it a lot more intelligibly than I can. Specifically on why a
19 person of ordinary skill in the art would understand that a single physical
20 channel, because the word single has to have some meaning, would
21 understand that the claims require both of these bits of information, the
22 power control and the scheduling to be transmitted at the same time in the
23 same physical channel. Where if you have --

24 JUDGE LANEY: Does that mean there's a claim construction dispute
25 over what single physical channel means? It sounds like that's what you're
26 saying now.

1 MR. THEISS: That is the claim language. We've briefed extensively
2 on that particular issue of single physical channel. Yes, Your Honor. As we
3 address in the Patent Owner Response and the surreplies, I think both sides
4 fully dispute what the meaning of a single physical channel is in the claim
5 language, yes. Patent Owner maintains the position that it has to have a
6 unique timing and a unique coding. Petitioner, to the best of my knowledge,
7 does not require those requirements. Any further questions, Your Honor?

8 JUDGE LANEY: None.

9 MR. THEISS: Thank you, Your Honor.

10 JUDGE LANEY: Thank you very much.

11 JUDGE DROESCH: Thank you for your presentations today and
12 your understanding with all the technical difficulties. We'll go off the record
13 and we're adjourned.

14 (Whereupon, the above-entitled matter went off the record at 11:51
15 a.m.)

IPR2025-00217 (Patent 10,952,153 B2)

IPR2025-00219 (Patent 9,706,500 B2)

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