Trials@uspto.gov
571-272-7822

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SIEMENS MOBILITY, INC.,
GROUND TRANSPORTATION SYSTEMS USA INC.,
HUMATICS CORP., and PIPER NETWORKS, INC.,
Petitioner,

v.

METROM RAIL, LLC,
Patent Owner.

IPR2023-00468 (Patent 9,043,131 B2)
IPR2023-00470 (Patent 8,812,227 B2)

Record of Oral Argument
Held: March 28, 2024

Before NEIL T. POWELL, STACEY G. WHITE, and IFTIKHAR AHMED, *Administrative Patent Judges*.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

JOSHUA JAMES, ESQ.
Crowell & Moring, LLP
544 N. Cityfront Plaza Drive
Suite 3600
Chicago, IL 60611
(312) 840-3270
jjames@crowell.com

MARK SUPKO, ESQ.
Crowell & Moring, LLP
1001 Pennsylvania Avenue, N.W.
Washington, DC 20004
(202) 624-2734
msupko@crowell.com

HOWARD WISNIA, ESQ.
Wisnia, PC
12636 High Bluff Drive
Suite 400
San Diego, CA 92130
(858) 461-0989
howard@wisnialaw.com

THATCHER RAHMEIER, ESQ.
Faegre Drinker Biddle & Reath, LLP
222 Delaware Avenue
Suite 1410
Wilmington, DE 19801
(302) 467-4211
Thatcher.rahmeier@faegredrinker.com

ON BEHALF OF THE PATENT OWNER:

GREGORY C. SCHODDE, ESQ.
PHILIPP RUBEN, ESQ.
RAJENDRA A. CHIPLUNKAR, ESQ.
McAndrews, Held & Malloy, Ltd.
500 West Madison Street
34th Floor
Chicago, IL 60661
(312) 775-8000 (Schodde)
(312) 775-8235 (Ruben)
(312) 775-8203 (Chiplunkar)
gschodde@mcandrews-ip.com
pruben@mcandrews-ip.com
rchiplunkar@mcandrews-ip.com

The above-entitled matter came on for hearing Thursday, March 28, 2024, commencing at 3:20 p.m. CST, at the Spellman Law Library, Southern University, 2 Roosevelt Steptoe Drive, Baton Rouge, Louisiana.

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

(3:23 p.m.)

THE USHER: All rise.

JUDGE AHMED: Please be seated. Good afternoon, I am Judge Iftikhar Ahmed and with me today are Judge Stacey White and Judge Neil Powell. This is a hearing in IPR 2023-00468 and IPR 2023-00470. The Petitioners in these cases are Siemens Mobility, Inc., Ground Transportation Systems, USA, Inc., Humatics Corp., and Piper Networks, Inc. versus Patent Owner who is Metrom Rail, LLC. The patents at issue in these two proceedings are Patent No. 9,043,131, and Patent No. 8,812,227.

To begin we'd like to thank the parties for agreeing to be part of our stadium tour and for being here for this oral hearing. We feel very honored and privileged to be here today. With that, we would like to go ahead and start the proceeding by taking appearances. Petitioner, would you please enter your appearance.

MR. JAMES: Thank you, Your Honor. I'm Joshua James of Crowell & Moring. And I'm joined by Mark Supko, also of Crowell & Moring and Howard Wisnia of Wisnia, P.C.

JUDGE AHMED: Thank you, Mr. James. How about Patent Owner?

MR. SCHODDE: Good afternoon, Judges of the Panel, I'm Greg Schodde for Patent Owner Metrom Rail, LLC. With me today, and if they'll stand as I call their names, Mr. Rajendra Chiplunkar and Mr. Phil Ruben. And we will be dividing the argument and talking about time when Your Honor's ready to talk about that.

JUDGE AHMED: Okay, thank you.

MR. RAHMEIER: Your Honor, also for Ground Transportation, my name's Thatcher Rahmeier, one of the Petitioners.

JUDGE AHMED: Thank you. I would like to thank both parties for participating in our LEAP program, which is our Legal Experience and Advancement Program which encourages junior attorneys, who not have too much argument before a tribunal, to argue before the Board. Today we have two LEAP attorneys, Mr. James and Mr. Ruben, who will be arguing under our LEAP program.

And as part of the program, what we do is in addition to the normal argument time, we assign another 15 minutes per side, so for today's argument, each side will have an additional 15 minutes.

We outlined how we are going to conduct this proceeding in our oral argument order. Each one of you will have 75 minutes today. Obviously, you don't have to use all of that time. We will begin with the Petitioner who may present their case with regards to the challenged claims and grounds.

And then Patent Owner will have a chance to respond to those, Petitioner can come back with a rebuttal, and Patent Owner again has a surrebuttal at the end. Couple of housekeeping issues, as you all are aware, we have a public audience today.

The Panel is under the impression that there is no confidential information in these proceedings, we've looked through the docket and nothing has been filed under seal. If there is some confidential information that comes up, please let us know right away. Second, please be as clear as possible during your argument regarding what slide or what exhibit you may be referring to.

We have all the electronic versions of all the demonstratives and all the exhibits and we can follow. With that, we'd like to first turn to some preliminary matters. We've received Petitioner's Objections to Patent Owner's Demonstratives and quite a few of those relate to the use of Patent Owner’s Exhibits 2030 to 2036, which are the subject of Patent Owner's Motion to Submit Supplemental Information.

The Panel thinks that it might be a good idea to try and resolve that motion now before we get started so that we can resolve Petitioner's objections. And we noticed that both of you have submitted demonstratives on that motion. So, Patent Owner, would you like to go ahead and briefly argue the motion to us?

MR. SCHODDE: Yes. And with your permission, Mr. Ruben, our LEAP practitioner, will be handling all of our motions for us today.

JUDGE AHMED: Go ahead, Mr. Ruben.

MR. RUBEN: Yes, if you can, that would be helpful. Okay. Just get the slides pulled up here, again, sorry. Thank you, Judges, may it please the Panel, my name's Philipp Ruben. I'm speaking today on behalf of Patent Owner, Metrom. First, I want to talk about the motion to supplement, as you mentioned. And to do so, I think it's helpful to talk about some background context for the motion.

In 2018, David Garcia, while working at Parsons, was embedded with Metrom, was given complete access to Metrom's facility and technology and presented on behalf of Metrom with Metrom, at the NextGen Train Control Conference to a room of industry professionals about Metrom's novel train collision avoidance technology.

It was subsequent to that, that Mr. Garcia left Parsons and joined Petitioner Piper, where he eventually became their vice-president. Now Patent Owner introduced evidence to show that it was after Mr. Garcia joining Piper, that Piper developed the Helix System, and which Patent Owner alleges is a copy of its patented AURA System.

We supported this with evidence, or this evidence of copying with an expert declaration, with declarations from Mr. Gunther and Mr. Marchi in our POR. Now Petitioner had the right to depose those witnesses, and they did. And it was during Mr. Gunther's deposition, that it became clear what they were talking it was going to be. Mainly that they were challenging whether or not Mr. Garcia actually had access to the technology at issue.

And it was at that point, as soon as Metrom became aware what Petitioner’s challenge was going to be, that we moved to supplement. We moved to supplement to provide corroborating evidence that Mr. Garcia did have access to Metrom’s facilities and technology. And in fact, Patent Owner did this well in advance of Petitioner's reply date, during the discovery period, to afford them notice and an opportunity to respond if they need to.

JUDGE WHITE: So just to keep the record clear, when was this motion supplement filed?

MR. RUBEN: The motion supplement was filed on December 12, 2023.

JUDGE WHITE: And the date of Petitioner's reply was?

MR. RUBEN: I believe it was December 15th.

JUDGE AHMED: So, there is no doubt that he had access to these exhibits beforehand, right?

MR. RUBEN: Correct.

JUDGE AHMED: And why was it a surprise that you'd have to show access to this information when you were alleging copying by Mr. Garcia?

MR. RUBEN: Respectfully, I don't think it was a surprise that we had to allege that, I think that it was, Petitioner did not know what counter, I'm sorry, Patent Owner did not know what counter Petitioner was going to make. Patent Owner made its prima facie case with the showing of declarations supported with evidence, and then to supplement the challenge to that, we moved to supplement.

And I think the Board has been lenient on these types of situations. For example, in the *Hyperbranch* case, articulating that when there's this intervening event that raises the importance of, and this would be on Slide 5, for example, that raises the importance of a particular piece of evidence, that it's sufficient, that qualifies as the reason why he could not have been attained to earlier standard under Rule 123. And the Board has further talked about that, it's reasonable that patent owners should not have to deduce petitioner's challenges and all of its supporting arguments before they develop in the course of the proceedings without a chance to respond in some fashion. That's from the *General Electric* case, which Patent Owner cited in its paper. And that's exactly what we want to do here.

If we can go back one slide, I just want to briefly address Rule 123, which is what Petitioner has challenged here. So Rule 123 states that the submission of supplemental information, that in order to do so one has to show two things.

First, the information could not reasonably have been obtained earlier, and second, that the supplemental information will be in the interests of

justice. If we go to the next slide, Slide 5. And we just talked about the evidence related to Mr. Garcia's access to Metrom, and how part of this was an intervening event, the importance of which was not really clear until Mr. Gunther was deposed.

Regarding Exhibits 2030 and 2031, those were actually obtained after Patent Owner filed its POR, those were obtained in October '23. In fact, they are Petitioner's own sales collateral, that they handed out at the NextGen conference to the public. And now they're challenging us of being, to introduce it into the record here.

And then, next slide, please. The second prong is the interest of justice. And we think that it's fairly clear here that there's an interest of justice, it's in the interest of justice for the Board, the fact finder, to have a complete record.

And secondly, that Petitioner is not prejudiced with this supplemental information and there's PTAB decisions on that one as well, for example, the *General Electric* case that we cited. The Board has a duty as a fact finder to consider the evidence and to make a factual determination on the objective indicia of non-obviousness, and it should not have to do that blindfolded.

And second, there is no prejudice to Petitioner here. Petitioner had time to respond, it had two weeks before filing the Reply. But most importantly, the single most important witness in this case, Mr. Garcia, is Petitioner's own employee. They could easily have filed a counter-declaration from Mr. Garcia stating that he in fact did not have access, but chose not to do so.

JUDGE AHMED: How do you respond to Petitioner's argument that they'd already done, they were already done with the depositions and so they

could not have asked any of your witnesses about this new evidence that you introduced after the depositions?

MR. RUBEN: Well, at the time that the motion was served, it was still within Petitioner's reply or discovery period. I know that there's been several cases from the Board that have provided very limited opportunities to respond. For example, I believe it is in the *Hyperbranch* case where they granted the supplemental information or the motion to supplement. So to the extent that Petitioners feel they need to be able to respond substantively, I suppose that's an option here.

JUDGE AHMED: All right. Let’s hear from the Petitioner, thank you.

MR. JAMES: And before we get started, Your Honor, I have physical copies of the slides that I would like to hand out, if that's okay. Thank you, Your Honors, Joshua James on behalf of Petitioners. I will briefly rebut with respect to Patent Owner’s Motion to Submit Supplemental Evidence. If we can go to Slide 69, please.

There are two requirements for a patent owner to submit the supplemental information. One is they have to show why the information could not have been obtained earlier. And two, show that consideration of that information would be in the interest of justice. For Exhibits 2032 through 2036 specifically, Patent Owner has had those exhibits since 2018, which is well before the filing date of the IPR petitions here.

And so, they have had it well before the time that this case started. I heard Patent Owner refer to cross-examination as a potential intervening event that would exempt them from the fact that they had it since 2018. But

that argument could eliminate this requirement for all the submissions for supplemental information.

IPRs are adversarial proceedings. The parties are well aware that cross-examination is something that is likely to happen on any declaration that's provided in the case. Additionally, these exhibits go to Patent Owner's burden of production with respect to the copying allegations they made in their response. So if Patent Owner thought that these exhibits supported their copying allegations, they should have provided it at the time that they made those allegations with their Patent Owner Response.

JUDGE POWELL: How do you distinguish the prior PTAB decision that Patent Owner is relying on?

MR. JAMES: Yes. I believe I heard Patent Owner refer to the *Hyperbranch* and the *General Electric* case. With respect to *Hyperbranch*, in that case there was a filing of an expert report in the district court that happened as the intervening event and then information in that expert report brought to light whether a certain reference was relevant or mattered to a particular issue.

And so that was an intervening event. That's something that isn't, is not going to happen in every IPR, it's not something that you may be aware of until it actually takes place in that district court, which is not going to be on the schedule or under the procedures laid out for the IPRs. So that's the difference in that case.

And then the *General Electric* case, the Board found that the positions of the parties, and the position of the petitioner didn't crystallize until for the first time on reply. Whereas here, again, this is Patent Owner's allegations

of copying that they're making, that they made in the response so it crystallized as of that time.

Additionally, in the *General Electric* case, a supplemental reply was provided for petitioners. We're very late in the game here, so I'm not sure if that's going to be something that would be available for Petitioners here. If we move on to Slide 70.

JUDGE WHITE: Would you be looking for a supplemental reply?

MR. JAMES: We're not requesting one. With respect to Exhibits 2030 and 2031, those two exhibits fail the second requirements, they are not in the interest of justice. These are sales collateral for a Helix System from Piper.

And the Board has already found that these Helix Systems comprised more than the vehicle mounted modules required by Claim 1 of both the ’131 and ’227 patents. They include other non-claimed features, and so there's no nexus between these systems. And commercial success is some of the other secondary considerations.

Additionally, prejudice is a factor of the interest of justice and there would be significant prejudice here, it's already been referred to, Petitioners didn't have a chance to depose on these particular exhibits, particularly Dr. Cooklev who made nexus arguments, as well as there's no opportunity for Petitioners to respond to Patent Owner's arguments on sur-reply.

JUDGE AHMED: But it was filed well before your reply right, you did have time to respond in your reply?

MR. JAMES: Yes, it was filed eight days before our reply was filed. So obviously we wouldn't have been able to include any cross-examination

from a deposition in that reply. Additionally, Petitioners would have been in a lose-lose situation had we addressed those exhibits in the reply.

Patent Owner would have argued that we opened the door and that it's all definitely fair game, effectively our actions could have granted the motion just by what we did. As opposed to, if we didn't address it on reply, then we had no way of responding to what Patent Owner did in the sur-reply, which we wouldn't have been able to do as well. Because again, they didn't put this in their response, we didn't know exactly how they were going to use these exhibits.

JUDGE AHMED: Okay. Thank you.

MR. JAMES: Thank you.

JUDGE AHMED: The Panel is going to take a brief moment, do you have some rebuttal?

MR. RUBEN: Yes, if you don't mind.

JUDGE AHMED: Very briefly.

MR. RUBEN: Thank you. Petitioners said that they didn't have an opportunity to conduct a deposition of Mr. Cooklev, but that's not really relevant to this inquiry. They already conducted depositions of Mr. Gunther and Mr. Marchi. And really the only new declarant that would have been an issue, would have been Mr. Garcia, their own employee, and they chose not to do that discovery. And the reason they did not do that discovery is probably because the, it would not have been very good for them, that it would have supported the evidence that Patent Owner had established.

JUDGE AHMED: Thank you. The Panel will take a brief moment to discuss.

(Panel discussion.)

The Panel has decided to grant Patent Owner's motion. We will let these exhibits in, but we do question the weight to be given to these exhibits, especially since Petitioner did not have a chance to depose any of the witnesses about any of these exhibits.

Petitioner, would you, I think Judge White asked you previously, would you like any other relief in response to our decision, as it relates to this motion and these exhibits?

MR. JAMES: Yes, Your Honor. If those exhibits are coming in, we would request a short supplemental reply to address them.

JUDGE AHMED: Okay. The Panel will consider that request after the hearing, and issue an order on that request shortly.

MR. JAMES: Thank you, Your Honor.

JUDGE AHMED: Thank you. So, with that, we can resolve most of Petitioner's objections, the objections related to these exhibits are overruled. The remaining objections relate to, I think, demonstratives that cite portions of exhibits that were not mentioned in any paper, we're going to take those under advisement and carry those over.

We know there are a couple more motions pending, but those don’t impact our hearing today, and we will carry those motions over as well. And with that, I think we can get started with arguments on the merits. Petitioner, whenever you are ready, how much time would you like to reserve for rebuttal?

MR. JAMES: Thirty minutes, please.

JUDGE AHMED: Okay. You've already used five minutes towards arguments on the motion for supplemental information, so you have 40 minutes and I’ll let you know as you approach that time.

MR. JAMES: Thank you. Good afternoon, Your Honors. Again, this is Joshua James on behalf of Petitioners. At today's argument, I will briefly introduce the patents and then discuss the prima facie obviousness case for Ground 1A. Then my colleague, Mr. Wisnia, will address secondary considerations, followed by Mr. Supko addressing certain other grounds, and then I will finish by addressing the Motion to Exclude.

At today's argument, we're addressing two IPRs on two very similar patents, Patent 9,043,131, the ’131 patent, and patent 8,812,227, the ’227 patent. And we can see that these patents are similar by comparing Claim 1 of each patent, which we do on Slide 5. And here we can see that Claim 1 of both patents include the same components. They include a vehicle mounted module, a transponder senser module, a control electronics module, and a user interface module. In Claim 1 of the ’131 patent, however, they require a first and second version of each component, while Claim 1 of the ’227 patent requires one or more of them.

Additionally, Claim 1 of the ’131 patent requires a radio communication unit, while Claim 1 of the ’227 patent requires an ultra-wideband or UWB unit. Let's go to Slide 8. These IPRs involve obviousness arguments, so the definition of a person of ordinary skill in the art will factor, or POSITA, will factor into the analysis. The parties have similar POSITA definitions. However, only Patent Owner includes a reference to experience with railway systems. Patent Owner made these same arguments prior to the issuance of the Institution Decision.

And in that decision, the Board correctly adopted Petitioner's definition, in part because the patents themselves explain that the collision

avoidance system described in those patents can apply to other vehicles besides just railway vehicles.

JUDGE WHITE: Counselor, I have a question. And I know that this wasn't directly addressed in the brief but looking at your definition of a person of ordinary skill in the art, I was wondering about the choice to have it as the person that is using these electronics, as opposed to the person that's developing or designing. Why do you think a person of ordinary skill in the art here is just the user of the system?

MR. JAMES: Well, the development of the system can also be incorporated as a background in wireless, but the importance of using it will provide experience with how that system can work in the field. And that can be vehicle independent, how it works when it's being implemented with other cars, and how it's being worked with railway vehicles.

However, the individuals developing it, I don't think either party has suggested that if someone is just focused on developing those systems, they wouldn't be able to provide helpful opinions. I don't think that's what we're arguing as well.

JUDGE WHITE: No, but the person of ordinary skill in the art is going to shape a lot of what's going forward, so I want to get a feel for this individual. So, you have a bachelor's degree in EE and they're the users of the system. Would the users of the system be your electrical engineers or would it just be somebody who is working at the trainyard who may or may not have a bachelor's degree in electrical engineering?

MR. JAMES: So while we do include this reference to a bachelor's degree in electrical engineering, I think there's a lot of cases in both PTAB and district court that explain while you may be able to satisfy a level of

ordinary skill based on education, experience can do that as well. So even if someone does not have that electrical engineering background, if they have years of experience in this field, using it and potentially even developing, they're also going to have the experience needed to understand these collision avoidance systems.

JUDGE WHITE: Would a person with a high school education who had been working say two or three years in the field, would they have significant enough experience to be a person of ordinary skill in the art?

MR. JAMES: It could potentially depend on what experience they actually had, what systems were they dealing with, but if it was substantial, it's possible. I don't think any of the declarants in this case are in that particular situation, so that hasn't been directly addressed, but it could be possible.

JUDGE WHITE: Okay, thanks.

JUDGE AHMED: Could you address Patent Owner's position that the industry was resistant to change and innovation and Federal Circuit law requires that one factor that we can consider is the rapidity of innovation that was made in the industry. What is Petitioner's position on how you factor this in to the level of skill in the art?

MR. JAMES: Yes. So we believe that Patent Owner is conflating implementation of certain technologies and maybe products that are sold or used with innovation and invention of those products. So while maybe for business reasons or other reasons, certain technologies are not immediately jumping to market, and this is an industry where it may be some time between new products are desired by certain customers. If it's entire rail

lines systems of cities, they're not going to be looking to buy a new system every year, like maybe a consumer is with a phone or some other device.

But there was plenty of innovation via inventions, there was over a hundred patents filed the year that the Grisham reference came out. There were over 90 references filed or patent applications filed with respect to railway technologies the year before the ’131 and ’227 patents were issued. So there was still a lot of innovation in the field.

JUDGE WHITE: But isn't that a bit broad, I mean, you just said that you searched on the term railway. These could be, you know, improvements in the metal that's going into a railway car. How do we apply this, when it’s sort of a broad inquiry of whether there was something that was done somewhere, that had to somehow touch a railroad?

MR. JAMES: Well, I think that was in the response, Patent Owner has focused a lot on whether or not you could apply technological shifts on collision avoidance systems that happened in cars versus railway. So there could be even more applications that you're looking at if you are looking with respect to independent rail vehicles.

Additionally, with the art that we have, we can see specific innovation with respect to collision avoidance systems on railway vehicles, be it the Grisham reference that's the core reference. There, also in the background discussion, there was a reference to a Heddebaut reference. And additionally, additional evidence that we have of the applicability of the innovation that can occur and how it can transfer from one field to the next. One of the inventors did not begin working on rail vehicles specifically until two months before inventing, showing that how that experience in one field with respect to other vehicles can translate to railway vehicles.

JUDGE WHITE: Does that really establish anything, though? Just because somebody worked on something a short period of time, as far as we know, the inventor was a genius. You could have come up with something really revolutionary in a short period of time. Why would that be a dispositive or even persuasive factor?

MR. JAMES: I think it can be persuasive in view of all the other evidence. It by itself, may not be dispositive, but we can see how it relates to the evidence that we have from Grisham, and the expert declarations that we have from Mr. Andrews that explain that these jumps were not significant.

Additionally, Patent Owner hasn't even pointed to a particular jump over the Grisham reference. All of the elements in the patent claim are in this reference of Grisham. And there is no specific teaching away in Grisham, there is no other reference that says "Hey, we tried what was said in here, where we were worried about this specific factor of Grisham, and therefore this is why we don't think we would want to do it."

If we can move to Slide 9, please. Grounds 1A in both IPRs show that Claims 1, 11, and 14 of both patents are obvious in view of Grisham. And Metrom, Patent Owner, effectively concedes that these claims were prima facia obvious, and we can see that if we turn to Slide 10. Patent Owner does not dispute that the claim, preamble of the Claim 1 requires a collision avoidance system and Grisham discloses a railroad collision avoidance system.

Then if we go to Slide 11, Patent Owners do not contest that Grisham discloses the vehicle mounted modules required by the challenged claims. And we can see that via the various units that are mounted to the first rail

vehicle and the second rail vehicle in the figure shown here. Additionally, Patent Owner does not dispute that Grisham discloses two transponder sensor modules, 902 on the first rail vehicle, and 904 on the second rail vehicle.

And Patent Owner does not contest that Grisham discloses two control electronics modules and two user interface modules. That's 1110 is the control, electronics module and 1108A is the user interface module shown on the second rail vehicle here, and Grisham explains that's what's on the second rail vehicle can also be on the first vehicle.

And then finally, on Slide 12, Patent Owner does not dispute that Grisham discloses using a time of flight technique to determine separation distance by measuring the time it takes the signal to go from one vehicle to the next.

So Patent Owner does not contest that Grisham discloses all of these elements, they just argue about secondary considerations. And with that, I will turn to my colleague, Mr. Wisnia to address those considerations.

MR. WISNIA: Thank you, Your Honors, Howard Wisnia on behalf of the Petitioners. I'm going to address most of these questions about secondary considerations in the rebuttal, but I want to touch on them briefly here.

First of all, the law is clear that the secondary considerations must be due to the merits of the invention, and they must be due to features that are not in the prior art. So one of the questions that you will see from the briefing, and perhaps will be addressed during Patent Owner’s questions, its presentation, is they haven't pinpointed anything that isn't in Grisham.

There's no teaching, there's no secret sauce, there's no sort of basis for any of these secondary considerations that's independent from anything in Grisham. So they haven't identified that.

Second of all, the evidence has to be co-extensive with the claimed invention. They have identified in their case that they believe that claim 1 of the ’131 and claim 1 of the ’227, as well as claim 7 of both those patents, all of those are subject to the secondary considerations.

But claim 1 of the ’131 patent does not require a UWB, claim 1 of the ’131 patent does not require GPS. Therefore, according to Patent Owner's position, neither UWB nor GPS can be critical to the success for the secondary considerations.

JUDGE AHMED: That brings up a good question, should we treat the two patents differently in terms of secondary considerations because the claims of the ’227 patent actually do recite UWB?

MR. WISNIA: It does, the ’227 does recite UWB. But, because of the position that Patent Owner has taken this position, you know, they gotta play the ball where it lies. And in their spot, they've affirmatively taken the position that the commercial success of the AURA System is met based on what's in claim 1 of the ’131 patent. Let's go -- oh, I'm sorry.

JUDGE POWELL: So, this all goes to nexus then, right?

MR. WISNIA: It does go to nexus.

JUDGE POWELL: And are you suggesting that we don't have to decide which claims go to nexus independent of Patent Owner's arguments?

MR. WISNIA: I'm not sure I fully understand the question.

JUDGE POWELL: So, you said -- you said, well, Patent Owners says there's a nexus for all the claims, all the challenged claims and all the

patents. And so, the Panel can decide that because there's not a nexus for some of the challenged claims, then you win is basically how I interpret it.

But I'm sitting here wondering if, well, if Patent Owner says there's a nexus for every challenged claim across all the -- all the challenged patents, do I as a judge have to decide well, okay, maybe there's not a nexus for claim 1 of the one patent, but there is a nexus for some dependent claim in the second patent independent of the fact that Patent Owner argued there's a nexus for every claim.

MR. WISNIA: Okay, I think I -- I think I understand the question, Your Honor. So it is their burden to put forward the nexus. It's not for the Panel to fill in gaps so to speak, it is the burden of the Patent Owner to make their argument on the nexus. To the law on co-extensiveness, right, which is that, you don't count non-critical limitations that aren't there, but they've already taken the position, they've taken the position that GPS and UWB aren't critical while the very fact that they are asserting commercial success.

There's only one system, the AURA System, right, they're not comparing the different systems, there's only one. And because they've taken that position, that UWB and GPS, a claim that does not require that, claim 1 of the ’131 patent does not require that, they've taken the position that those limitations are not critical to the success.

And therefore, I think you've got to take them at their word, take them at their argument in this case. There could be, I agree with you, Your Honor, that somebody could have presented evidence in a case that separately identified, you know, here's my evidence for claim 1, here's my evidence for claim 7, here's why it's different, here's why I think these arguments are not inconsistent, they happen not to have done that.

JUDGE POWELL: And so we can't, it probably wouldn't be appropriate for us to make arguments for them about different features that might have been critical, aside from what they did argue.

MR. WISNIA: I think that's right, Your Honor, I think the Federal Circuit has basically instructed us that in an IPR setting it's an adversarial proceeding and, you know, it's up to the parties and not to the Panel to make the arguments.

JUDGE AHMED: Why is Dr. Cooklev's testimony not enough? He goes through and he has the claim chart mapping the claims to the AURA System, and these are fairly broad claims and he's mapped them to different components of the AURA System, why is that not enough for the nexus requirement?

MR. WISNIA: Well, there's a couple reasons. One is, as they've explained in the *Yita* case, there's two parts to the nexus, right. You have to look at the nexus between the product let's say, and the claim.

You'd also have to look at the nexus between the claim and the prior art. Cooklev didn't even look at the prior art, you've got no analysis of that. And so the real question here is what is the secret sauce, so to speak, that's in the AURA system that's not already in Grisham.

And also, Cooklev completely just misunderstood the legal test on co-extensiveness. He testified under oath that he thought infringement equaled co-extensiveness. He did not apply the proper test that looking at whether or not additional limitations mattered in that analysis.

And in fact, in this case, the CEO of the Patent Owner, Mr. Marchi, testified directly at his deposition, and this is Exhibit 1054 at pages 126 to

127, that there were important unclaimed features that drive sales of the AURA product.

I mean, that's the death knell for a claim of co-extensiveness where he was asked expressly what about these additional features in your marketing, do customers care about them, are they important? Answer: Yes. Is this the reason that a customer may buy your product? I believe so. That's -- that ends that matter, in my view, Your Honor.

So there is no nexus between the AURA System at all, in our view. As with respect to the Helix System, you know, as Mr. Gunther testified in his deposition, he recognizes that he can't prove that there's been any sort of copying here. Most importantly, I would say though, that the system that they've accused of infringement in this lawsuit, you see it in the Complaint, was demonstrated in New York in 2019, that's in Exhibit 1057.

That's prior to Mr. Garcia joining Piper. Now we don't think there's any evidence, and to be honest with you, we find it on behalf of Mr. Garcia, somewhat insulting to suggest that he breached some sort of confidentiality here. But put that aside for a moment. And the simple fact is, the system that they've asserted is infringing, that's the system that they say is covered by the claim, was demonstrated prior to Mr. Garcia coming to Piper.

JUDGE AHMED: Where is that in the record?

MR. WISNIA: That's Exhibit 1057, it's a press release talking about the demonstration that took place in 2019.

JUDGE AHMED: Okay.

MR. WISNIA: There's also, as the Court, excuse me, as the Board itself found in its order denying discovery, Paper 18 at Pages 6 to 9, there is

no, excuse me, there was no presentation by Patent Owner of any sort of co-extensiveness analysis between the Helix System and the claim here.

In fact, I mean, there's a full discussion in Paper 18 of multiple features that are in the Helix System that are not addressed by the claims, LiDAR being one example of those. So again, I will address some of the particulars that Patent Owner may raise in their argument, in the rebuttal, but in general, they haven't shown anything that's different from Grisham.

They haven't shown that there's any sort of commercial success or long felt need or anything that was met supposedly by their system that was not also met by Grisham, which we believe is dispositive here.

And second off, they have not met their burden with respect to co-extensiveness, either with respect to the AURA System or with respect to the Helix System. Unless the Court, unless the Board has some questions, I will pass to my colleague.

JUDGE AHMED: So, on long felt need, isn't there something to be said about the fact that Grisham came ten years before these patents and nobody had developed a system during those ten years, is there any merit to that argument?

MR. WISNIA: Well, if they had come forward with a different system and said okay, here's the reason why nobody wanted to use Grisham, here's the facts of why our system is better than Grisham or here's the secret sauce, or here's why we put this somewhat promising technology of Grisham and made it actually palpable for whatever reason. But they haven't put any of that evidence in.

The simple fact that for business reasons, or for economic reasons, someone may not implement the system, is not a basis for patentability and

it does not show -- it's not due to the merits of the invention so to speak, it's the exact type of thing that the Federal Circuit says we have to carve out of our analysis with respect to secondary considerations.

I mean, the simple facts in this case are, as Mr. Gunther testified, the way he came up with UWB is he went to Grisham's company. Grisham worked for Time-Domain, he went to Time-Domain and he bought it off the shelf.

So it's somewhat -- it's somewhat humorous to suggest that Grisham was languishing as an unused invention when the only way they made their invention was the buying UWB from Grisham, I mean from Time-Domain. So unless the Board has additional questions, I will reserve my time from this point and pass to my colleague.

JUDGE AHMED: All right. Thank you.

MR. SUPKO: Thank you, Your Honors, Mark Supko for the Petitioners. Josh, can we go to Slide 29, please. Your Honors as you've seen from the post-institution decision briefing, a substantial thrust has been secondary considerations arguments.

But Patent Owner did submit arguments on several particular claim limitations under several particular grounds, and I would like to try to address at least some of the ones that got the most attention there. So the first one I'd like to talk in the context of Grounds 1B of both of the IPRs and background was that claims 2 through 4 were obvious in view of Grisham and Douglas. Next slide, please.

And the dispute between the parties focuses on the limitation that we've highlighted here. It's a central tracking unit that is operable to track a

location of the first vehicle mounted module and a location of the second vehicle mounted module. Next slide please.

So Metrom, Patent Owner, acknowledges that in Douglas, which is the secondary reference here, Douglas's central station knows that the trains are generally in the same zone and the tracks on which the trains are moving are also known. But then Metrom presents the argument that Douglas has no knowledge of the location of the trains in the zone.

And because it has no knowledge, it can't track that location. But that argument ignores what a POSITA would take away from reading the Douglas reference and it really makes no sense. This is a collision avoidance system. So to say that Douglas's station has no knowledge of where these trains are, is to say that it can't prevent collisions. It needs to know where the trains are within the zone under its control.

JUDGE AHMED: And Patent Owner’s argument, I think, goes to how precise the location detection has to be. The ’131 patent specification says is it has to be able to precisely detect the location of the train. And the way I understood Patent Owner’s argument is that this is a large zone and these are lengthy trains so the detection of the location is not as accurate as the claims require, I guess.

MR. SUPKO: Well, that's the point, Your Honor, what the claims require. The specification does say in certain parts it tracks the, the system tracks the precise location. In other places, it talks about relative location, absolute location, sometimes just location. But what the claim says is just location.

So it doesn't say you have to track the precise location, it doesn't say you have to track it down to the foot. What Douglas does, it knows where

these trains are. If you recall from the reference, Douglas is talking about a zone. A zone includes tracks and it includes lanes that are under the control of that central station. So it's not tracks that are spread all across the country, it's a relatively confined area.

And Douglas needs to know where the train is, because the trains are -- let's go to Slide 31, please, 33 please, Josh. Sorry, Your Honor, just referring back to the claim, here it's just tracking a location, it's not tracking a precise location. Next slide, please. Just some more examples in the specification. Let's go to the next slide, please. No, we don't have a slide on that one.

So from the Douglas reference, Your Honors, Douglas talks about receiving broadcasts from the trains. And what the trains send, when it's in the zone, it sends a unique identifier of the train, it sends a unique identifier of the track that it's on, and then it also sends in some implementations, the direction that the train is on.

So for every train that's in the zone that's under the control of the station, that gets broadcast. All of the other trains in the zone get it, but the station gets it as well. And what the station does with that information, for each one of those trains, it says "Okay, what's the first link that this train is going to come up to."

And then it says, "After that link, where is it going." If it follows along its route, identifies all of the different lengths and all the different tracks that it's going to be traveling along in that route. And then the station broadcasts back out to the trains that series of links that the trains, every one of them, is going to be following.

So in order to do that, Douglas needs to know, okay, where's the first link, sends that information out. It can't just say "All right, that's all I care about, I'm not going to track the progress of the train as it goes through the zone." Because otherwise, it's going to be sending out stale information to all the other trains.

If Link A is the first link, Link B is the second link, and the train has already passed by Link A, but the central station is telling everybody it hasn't gotten to Link A yet, you're going to get collisions. It makes absolutely no sense for a collision avoidance system.

JUDGE POWELL: So, you're saying that a person of ordinary skill in the art would deduce from the Douglas disclosure that it must be keeping closer track of the location than perhaps is expressly stated in the reference. Is that the position you're articulating there?

MR. SUPKO: In essence, Your Honor, Douglas doesn't say okay, I'm, every time a train passes by a link that information is going to the station and the station is updating the series of link information that it's sending back out to the trains.

But Douglas probably never thought somebody was going to look at this disclosure and say, "Oh, all you're going to do is determine what the route is from the first link and I'm never going to look at it again." Collision avoidance systems can't work that way.

Now Patent Owner has made the argument that Douglas is no more tracking the location of the train than if you said to somebody, "I'm going to be driving my car on Route 95 from Chicago to Denver." And that's it, that's the extent of the location. But that's not what we're talking about here.

These zones are a confined area, and Douglas discloses that it knows when a train is coming up to a link within about ideally 3 kilometers of when it's approaching that link. And that makes sense, because this is a collision avoidance system, you have to give these trains time to stop.

So Douglas figures out trains coming up to that location to that link, figures out the route, and blasts that out to everybody. So it's not a 900-mile stretch of road that we're talking about here, we're talking about a collection of links and tracks at a station that's monitoring and is responsible for ensuring there are no collisions. So Douglas is tracking the location of the trains to the level of detail that it needs to do to perform its collision avoidance function.

JUDGE POWELL: So, if we find, if we don't find that Douglas sort of implicitly is disclosing that when the train goes through that first link, the central station determines that, if we don't find that that's in the reference, do you still win on this point?

MR. SUPKO: I would say yes, Your Honor, because at the time it's coming up to that first link, what Douglas discloses is, "I need to know that information within a predetermined distance," 3 kilometers is the example there.

So right at that time, Douglas has made a decision, made a determination, that train is within 3 miles of that link, Douglas knows where those links are, it knows where the tracks are because it's responsible for monitoring all of the train track that's there. The claim doesn't require that you continually track the location, it requires that you track the location, store it, every length that Douglas, that the train comes up to, it's going to be

within that predetermined distance, so there is tracking there. You don't have to find that it's constant.

JUDGE WHITE: Is it proper for us to sort of extrapolate out this, because that isn't exactly what's disclosed in Douglas, so is it appropriate for us to get to that?

MR. SUPKO: I don't believe it's extrapolating, Your Honor. The way I would phrase it is you're interpreting the specification from the perspective of a person of ordinary skill in the art, which is what you are supposed to do.

A person of ordinary skill in the art reading the specification, which is a collision avoidance system for trains, is not going to think the central station is only sending out the intended route, and that's what all the other trains as they travel through the zone, are relying on to avoid collisions, that would make no sense to a POSITA. So it's not extrapolating, it's interpreting what's taught in the specification from the perspective of a person of ordinary skill in the art.

Unless you have other questions on that particular reference, I would like to shift over to another one of the grounds. Can we go to Slide 40, please. Grounds 1D in the ’131 patent and 2D of the ’227 patent involve the combination of Grisham and McDaniel. Let's go to Slide 41, please. And the dispute here relates to this requirement for an adaptive threshold feature. It's basically the collision avoidance system sets a threshold, says that if two vehicles are any closer than X distance, that's a problem, I've got to send out a warning. What McDaniel teaches, and let's go to the next slide here.

McDaniel teaches an adaptive threshold system. So based on how fast the vehicles are going and whether they're coming towards one another,

whether they are going away from one another, McDaniels modifies the threshold, so it's an adaptive threshold.

Two vehicles are coming towards one another very rapidly, that's a very critical situation, that gets prioritized, you shorten the threshold there before you're going to give a warning because you're trying to give enough time so that they can avoid a collision.

Now Metrom argues that a POSITA would not have been motivated to make this combination of Grisham and McDaniel, because it supposedly would be incapable, the combination would be incapable of distinguishing false threats from real threats.

Well, first point on that, the claims don't require getting rid of nuisance alarms, doesn't talk about false threats, doesn't talk about real threats, so the argument's a bit of a red herring. But we presented substantial evidence of why somebody would be motivated to make that combination.

McDaniel itself says the purpose for the invention is to have more accurate alarms, to not be, if two vehicles are moving away from one another, even though they might be close, there's not a significant risk of a collision, so you don't give a warning there. But if they're going towards one another very quickly, that is a significant risk, it's a higher risk, that's why you have this adaptive threshold.

JUDGE AHMED: But if you're getting a lot of false threats, doesn't that undermine the motivation to combine those references?

MR. SUPKO: It would if you were getting a lot of false threats, but there's nothing in McDaniel that suggests there are a lot of false threats. The examples that Patent Owner points to, well, if you have two trains on

different tracks that are very close to one another, you don't want an alarm there.

Well, McDaniel doesn't say it's going to alarm in that situation. They haven't pointed to anything in the specification that says that. Everything you read in the McDaniels specification says their objective there is to improve the collision avoidance, improve the quality of the alarms that are being distributed there.

Now I want to hit one more of these before --

JUDGE AHMED: Mr. Supko, you have about 5 minutes before you get into your rebuttal time.

MR. SUPKO: Okay. Thank you, Your Honor. Let's go to Slide 45, please, Josh. I want to talk a bit about the arguments in Grounds 2A of both the ’131 and the ’227. The two claims that were primarily at issue here, 7 and 17, 17 is the one that I want to focus on right now. Can we go to Slide 50, please.

And the dispute centers on the limitation that we've got on Slide 50, there's a requirement for a first wireless communications antenna that's operable to send and receive data representing the separation distance over the air. Patent Owner argues that Grisham doesn't do this, we say it plainly does. Can we go to Slide 51, please. Now Slide 51 shows Figure 22 from Grisham.

Grisham, there's no dispute that Grisham determines separation distance, no question at all about that. Next slide, please. And there's really no real dispute about how Grisham determines separation distance. What we see in Figure 21 here, the first train, 1102 on the left, sends an impulse to the train on the right.

And once the train gets that, it says "Okay, somebody's in the neighborhood here, I got to figure out what's going on." In addition to sending an alarm to the operator, it sends a ping back to the first train which reflects back to the second train, and from that, the second train figures out what the separation distance is there.

JUDGE AHMED: I think that's the point, the second train figures out what the separation distance is, and Patent Owner is arguing that it does not send or receive that information in Grisham.

MR. SUPKO: So what the --

JUDGE AHMED: Or at least Petitioner hasn't contended that in the Petition.

MR. SUPKO: Correct. That is the argument, Your Honor. They say okay, the second train makes that determination but it never sends that information back to the first train. But Grisham does do that. Could we go to, I'm not sure we've got a slide on this one. I'll just identify it for the record, Your Honor.

In Grisham at Column 24, Lines 25 to 29, which the Board cited in its Institution Decision, it's the very -- go to the next slide, please, Josh, one more, please. We don't have that, I thought we had the, okay. Here we go.

So what Grisham teaches the POSITA is that it should be understood that the first locomotive can contain the same equipment as the second locomotive, and as such, could be notified of the presence and speed of an oncoming second locomotive.

So what it says there, first locomotive has the same receiver, same type of receiver, because it has that, it gets notified of the presence and speed of that oncoming second locomotive. It doesn't say it can figure out

where the second locomotive is. It doesn't say it can figure out how far it is, it says it gets notified. And again, that only makes sense when you think about what this system is.

If the second train figures out that the separation distance is creating a collision risk, why would it not tell the first train that it has that problem? Your goal here is to avoid collisions. Second train is going to take action, take corrective action, but the first train should be doing that too, they should both be putting the brakes on. So Grisham discloses that that notification is sent.

Now granted, it says presence and speed, it doesn't say separation distance. But if we are talking about presence, it would make no sense for the second train to say okay, there's another train here that's coming at me. If you're trying to avoid collisions and you just figured out what the separation distance is, you're going to send that information to the first train. That's what's meant by presence and speed here.

JUDGE AHMED: So, I'll go back to what Judge White said earlier, all that makes sense, but how are we supposed to read that from Grisham and more importantly, from your Petition?

MR. SUPKO: Well, Your Honor, we did cite to this back and forth here. I don't believe there's a citation to this particular sentence in here. But Your Honors recognize that in the Institution Decision, it's the very next line from the portion of the specification that we cited to and that Mr. Andrews discussed. And it's reflected in the drawing figures. So again, looking at the specification from the standpoint of a person of ordinary skill in the art, that's how a person of ordinary skill in the art would understand this disclosure as a whole.

JUDGE AHMED: You're in your rebuttal time now.

MR. SUPKO: Thank you, Your Honor, I'll step aside.

MR. SCHODDE: I'm going to start with our Slide 14.

JUDGE AHMED: But first, how much time would you like to reserve for your sur-rebuttal?

MR. SCHODDE: Ten minutes, more or less, and I will be splitting the argument with Mr. Chiplunkar. I'm going to cover the person of ordinary skill and the objective indicia of non-obviousness and Mr. Chiplunkar is going to be tackling the grounds. So please keep that in mind when you are framing your questions. Although, I won't shy away from it, I'll try. But that's my excuse.

JUDGE POWELL: You're absolutely welcome to call a friend.

MR. SCHODDE: I will call a friend, indeed. So members of the Panel and our guests at Southern, thanks for hosting us today, thanks for having this hearing here, it's a unique opportunity and we appreciate the opportunity to address the Panel in this courtroom. When I found out we were going to be here at Southern, I put this slide together at the beginning.

This is a famous quote from Abraham Lincoln, he was a big fan of the patent system. And I think this is going to become clear why I started with this as I go through the objective indicia. From Lincoln, "Next came the patent laws. These began in England in 1624; and, in this country, with the adoption of our constitution. Before these, any man might instantly use what another had invented; so that the inventor had no special advantage from his own invention.

The patent system changed this; secured to the inventor, for a limited time, the exclusive use of his invention; and thereby added the fuel of

interest to the fire of genius, in the discovery and production of new and useful things."

And this is inscribed over the west door of the Commerce Department on 15th Street, some of you may have seen it before you walked by, and looked up and that's a picture of it in the upper part of the frame.

So I will be honest, when I first put this in, I thought how am I going to tie this to the evidence in this case. This is not in the record, I'm going to be subject to a motion to strike. But it came to me when I saw the slide in the argument that Petitioners were making regarding whether or not this industry is innovative or not.

And I heard my colleague say we showed you in our Reply, 90 or 100 patent applications that have “railway” in them during this same time period. Well, I went back and checked and we cited this in our papers, the Patent Office keeps statistics on how many patents are filed. And sometimes they even break it down by industry.

In 2011, it was 250,000 more or less, patents issued. Ninety applications from an industry as significant as the railroad industry is to our economy and to the country is noise, it is measurement error, it is de minimus in the context of the amount of innovation going on in this country.

I would submit that no industry other than, needs innovation and needs fuel in the form of patents more than the railroad industry, which I think the evidence shows is among the most reluctant, sporadic, resistant to change, even fossilized industry in our country today.

No offense to anyone here, but Metrom was founded with the notion that we would come up with new ways to approach old problems in this industry. A good a place to start is the statute. Slide 15, please and

Demonstrative Exhibits at 2039. 35 U.S.C 103 is the basis for all of the grounds.

A couple of observations about this. First, there is no allegation of anticipation, and I think you just heard why. Grisham gets close, we acknowledge that, but it's not quite there. That's why Grisham went into the drawer and our invention went into their machine, Helix.

A second observation about this is that "Patentability shall not be negated by the manner in which the invention was made." And I thought this argument had disappeared when I saw the slide deck, but it came up again.

I heard the Petitioner say "Well, Mr. Gunther was new to the industry, so therefore it must be obvious." It's right in the statute, you never look to the inventor to say "Oh, well, he thought of it, so it must have been obvious to everyone." That's why he's the inventor and that's why that statement is in the statute.

You don't, you can't look at the inventor and say well, he was super smart, or look how fast he came up with it. He could come up with it accidentally, it doesn't matter, that's not the test for obviousness. You look to this ordinary person of skill in the art.

Which, unlike the ordinary person from torts, the reasonable and prudent person that some of the students here may be familiar with, our hypothetical ordinary person changes every single time. You look to the art that's relevant to the claimed invention. And next slide here, keep going. Let's just to go to Slide No. 18.

Your Honors picked up on something which I think is kind of important. Both parties, including the Petitioner, put in a relatively low level

of skill here, the person using these inventions, especially in the railroad art, does not have a high level of skill. And the low level of skill favors the finding of non-obviousness.

Obviously more is obvious to a person with extraordinary skill, or with a vast knowledge of the art, than is obvious to a person of low skill and with a much narrower focus. We think the focus should be on the railroad industry, because that's what this invention is limited to.

Notwithstanding the statement in the file wrapper in the specification that it might be applicable in other areas, the claims were written for this area, they are limited to that. And that's what we think should be the measuring stick for who this would be obvious to, a person in the railway art.

JUDGE WHITE: And this question shouldn't surprise you, do you think this person needs to have a bachelor's degree?

MR. SCHODDE: I think bachelor's degree is fair, and I think we've got that in our, I think people in this art who are doing railway safety systems, who are using them, and implementing, are typically going to have a bachelor's degree. I think that's a reasonable inclusion.

JUDGE WHITE: What is this distinction that you guys have as far as choosing to focus on the users of the system as opposed to the developers and the designers of the system, why was that choice made?

MR. SCHODDE: Right.

JUDGE WHITE: Both parties have made that choice.

MR. SCHODDE: Right. And I think for us, because the users tend to have a lower skill. People who are not users, but perhaps designers who are sitting back at maybe a large consulting engineer company or something,

may have a broader focus. But I, apparently the Petitioners agree, it's the users, it's just we disagree on which users, we are into the railway art. We don't think the automotive or the airplanes or boats is the relevant art here.

We think the relevant art is the railway art. And then, between all of those things, we've got some evidence, testimony, that the railroad art, in particular, suffers from a high degree of resistance to change, to a lack of innovation, skepticism to trying the new. And that's something you need to take into account as you evaluate whether or not to confirm these claims which are limited to railway vehicles. Next slide, please.

JUDGE AHMED: A lot of the prior art the Petitioner has asserted is not necessarily related to railway, but it has some of the same concepts, right? So why is the, I guess this question is throughout the issues that we have to address, why is the level of ordinary skill limited to railway? What's so special about collision avoidance systems in the railway industry that makes it different than any other area?

MR. SCHODDE: Yes, we talk about this a little bit in the POPR, actually Exhibit 2001 goes into some of the reasons why you just can't translate one to the other. And I think the nature of the vehicles are different, the speeds are different, the weights are different. It's just a different environment, different application.

And that the industry has a different attitude than perhaps automotive or airplanes or boats. They're all transportation, but we're looking for the person of ordinary skill in the relevant art. And the relevant art, again, because the claims are directed to a rail vehicle, we think is appropriately railway.

If you broaden it out, at some point the hypothetical person of ordinary skill could become, you know, a super scientist, a person who had knowledge of all kinds of different art. That's not fair to the inventor in this case.

JUDGE WHITE: The reasonable man and the person of ordinary skill in the art are probably close cousins, and they're probably both highly annoying if you actually get to meet them, but I think the question here is that if you're dealing with somebody who is a user of the system, they're going to be focused on the practical outcome.

And if you're just focused on the practical outcome of whether this thing is going to stop these trains from crashing, would not that person look broadly at anything that's going to stop crashes from occurring?

MR. SCHODDE: Interesting thought, hadn't looked at it from that perspective before. But I think the evidence that we've got on the record about a user was that there was no way that this radio-based terrestrial system is going to work.

Mr. Gunther had that experience with a user, a railway safety supervisor at a railroad they were trying to sell the system to. He had seen some other efforts to implement this in the field, complete failures. And he was completely surprised when the Metrom system actually turned out to work and met his needs and they made their first sale as a result. So we've got that user experience in the record.

JUDGE WHITE: I think there's a nuance to where we're going to go in this argument. But the question right now is, who this person is and what they'd be looking at, whether they would look at something and say that's not going to work, is something that we're going to get to of course, when we

get to the secondary considerations. But would this person just be motivated to look to see practically what's going to work, what has worked elsewhere? It's just a practical consideration as a user.

MR. SCHODDE: I think the user in this space, in the area to which the claims are limited, is unwilling to look anywhere. I mean that's what the evidence seems to show, they're not, they're very reluctant to try anything. I've kind of morphed that into what would the user be willing to attempt, the industry is so resistant to change, there's very little that they're even willing to try.

That's just kind of the nature of this particular environment and this particular industry. They're unwilling to try, they're skeptical of new things, they just, you know, if that is the user we're speaking of, that's just baked into their DNA. And I think that is a factor in favor of finding that it's not obvious, it's an objective indicator that it's a non-obvious invention.

JUDGE POWELL: So, are you saying that even if they looked, they are hesitant to take a leap of faith on something?

MR. SCHODDE: Absolutely. I mean, you can say that Grisham was available to them, but again, you heard the argument. It's not the same thing, it requires adjustment, they didn't just try it. And when they did, they didn't go with a copy, they went with something that they knew would work, which was our invention. So when we compare the experts, Mr. Conti and Mr. Andrews, you see the contrast between the two of them.

One is a professional expert, our expert, Mr. Conti, is a professional railway safety consultant. We think that between the two, ours is much closer, I think Mr. Conti has an above the ordinary level of skill in this art,

frankly, given his background and experience. But more importantly, it's also relevant knowledge.

Mr. Andrews had no experience in the railway safety area, none whatsoever. He bases his assumptions about what it would not be obvious to combine. He's a blank canvas upon which the Petitioner's argument is written. I think there's some testimony in his deposition that the closest he's ever come to a piece of railroad equipment was in a museum.

Mr. Conti, again, not the professional expert, not a professional IPR petition writer, I think was much more candid, and he just testified to what he knew, and he knows a lot about the industry. And what he testified to was that no one would have ever thought to do this, no one thought to do it at the time. It wasn't obvious to him, it's not obvious now.

All right, the indicia of non-obviousness, let's go to Slide 22. I want to talk about this timeline a little bit. We put this together from the evidence. And the reason I wanted to do this was because it's easy to lose chronological depth perception.

You're looking backwards through all the references and everything sort of comes up to the surface like this all happened at the same time. And it didn't. Our first priority document was filed in 2011.

We came to market in 2013, it took five years to overcome the industry's resistance to this invention, five years. It wasn't until 2018 that the industry started to recognize that we had something here with that AURA System. And then you've got that Next-Gen Rail Conference, happens every October, in 2018, where Mr. Garcia is presenting our technology while he's working with Parsons. Parsons is teamed up with Metrom, they are presenting at the conference together.

And he's so embedded with us, that he's presenting Metrom's technology to a room full of industry professionals and he touts it, and you will see this later on in the evidence. But that doesn't happen until five years after we come to the market. It took that long to overcome the industry resistance.

That's the kind of empirical evidence of skepticism, reluctance, that you don't often get in these cases, but now you've got an objective record to look at.

JUDGE WHITE: Well, let me ask you about the difference between skepticism and sort of a capital expenditure. I may only buy a new refrigerator once every ten years, so that capital expenditure of going into buying a new system, it might show that I was reluctant to adopt a new technology, even though this refrigerator is much better than the refrigerators that were out there ten years ago. Or it could reflect the fact that I only replace this equipment and do these investitures on the basis that it only happens but so often.

What should I take from this delay, I mean, should I just say well, these are big capital expenditures to go into new railway systems. This is not something that happens all the time, it's not something that, you know, there's a hot iPhone, I'm going to buy it right now as opposed to a capital expenditure that I might not do but every ten or fifteen years.

MR. SCHODDE: Sure. The response to that is, if you look at the sales data, the cost of this per unit installed relative to the cost of one of these giant new like tie tamping machines is trivial. The machines cost millions.

Our invention, you can look at the sales data is in the thousands or tens of thousands per unit, and it's protecting these things from a collision. So the capital cost that the railroads are concerned about, is having to replace a multi-million-dollar piece of machinery.

That's what they care about, so they're highly incentivized, if they can, to not run into each other and destroy really expensive capital equipment. So my argument would be there's no economic reason why this was so hard to innovate and push out. The economics are the other way, they had every reason to do it. They didn't because they are skeptical of the technology, that's why they didn't do it.

JUDGE WHITE: But do they, once you've spent the money in the prior art systems and you've spent the money on building up whatever the system used to be and that was millions of dollars. Does somebody come to your office and say "Hey, there's this system that costs less money, let's try that out." Or are you going to be like, I just spent millions of dollars on this and now you want me to do something else?

MR. SCHODDE: No, because there's no replacement of the equipment. The AURA System is an add-on to an existing machine, you don't have to replace it at all. It's got components that you attach to the machine that's installed in the cab. It's like adding on an accessory to your car, it doesn't come from the factory that way, this is an after-market thing sold.

So there's no, the capital turnover on the maintenance of way equipment itself is simply not a consideration. And I think if this was, you might have heard some evidence from Petitioners in that regard. And you may, they're certainly playing in the space. Siemens and Thales are two of

the largest corporations on the planet. They have every incentive to come up with some commercial or market-based evidence why these things would be, why this would have played out the way it did and there's none of that from the Petitioners in the Reply.

JUDGE AHMED: How about the impact of regulatory requirements. I think the papers talk about how the government mandated PTC technology at some point. Has that played any role in the growth of these collision avoidance systems?

MR. SCHODDE: Yes, PTC is not really developed the record and this forum is not really well-suited, frankly, for factually developing all of the different branches on the tree. But there was a big effort to implement positive train control in the United States, huge amounts of money were spent on it. Fundamentally, it is an implementation of the old way of keeping trains apart that they'd been doing for decades.

It's a block-based system based on track circuit detection and traditional methods of train location. It doesn't use UWB, it doesn't use time of flight. It's fairly conventional, albeit very expensive, in terms of how it's implemented. Time does not, in the record, doesn't permit going out there, and I don't think the Petitioners have really developed that.

JUDGE AHMED: And in terms of your timeline that pre-dated the invention, or?

MR. SCHODDE: I think it overlaps.

JUDGE AHMED: Okay.

MR. SCHODDE: But I mean, to that point, even that process took a long time, cost a ton of money. We think our technology, at the end of the

day, would be a lot cheaper if you were to adapt it to that particular application.

I mean, one of the criticisms of our evidence was that, you know, we have a maintenance of way product. It could be applied more broadly, I think, for commercial success purposes, though, the relevant market is the market to which the product is addressed.

I mean, we don't have to expand and fill every possible niche that our claims might reach in order to have commercial success. We've got a product directed to the maintenance of way collisions, that product is commercially successful and that should be sufficient.

All right. Let's go to slide --

JUDGE AHMED: While we have the timeline up.

MR. SCHODDE: Oh, sure.

JUDGE AHMED: Could you address Petitioner's argument that Mr. -- that Petitioners had already demo’ed their product back in 2019, well before Mr. Garcia went to work at Piper?

MR. SCHODDE: Right. And I think you see a shift in their argument. Once it became clear that this evidence was out there, that we had Mr. Garcia on tape presenting at the 2018 conference, you see a bit of a shift in their approach.

Now they seem to be focused on the idea that also in 2018, 2019 timeframe, Petitioner Piper was demoing something for the NTA that included a UWB component. If you go to look at the patent they say they filed at that time, it's not our invention. It's a different invention, uses wayside anchors and UWB units in the cab. It's also got some pretty broad claims in it.

They say that, you know, they filed that in the office, there's an implication there that this is new, useful, and not obvious, and they got the claims five years after we start pushing this out. I mean, that's actually to our point, in terms of the secondary considerations.

They didn't do that until after we had proved this out and the industry recognized its value, that's when they did it. So even if their argument is well, Mr. Garcia isn't the route for the copying, that doesn't exclude the possibility that they may have copied it from some other source because it had been on the market for five years.

And also, it doesn't negate the proposition that it was only after we proved it worked, had success with it that they then started to try to implement it. And I will tell you that their proofs on that system that they say is the same, are pretty thin.

And it would have been relatively trivial for them to put in a declaration or something saying, you know, here's what we had before we hired Mr. Garcia. They didn't do that. We had a motion to get secondary considerations evidence early in this case before we'd been able to develop much of this record.

And that motion was denied for, you know, reasons that the Panel believed were sound. But having taking that attitude, that path, it's, they can't be heard to complain now that, you know, well, we had this other, you could have proved this, but, you know, they didn't forward the evidence on their own, I mean, there's an inference you can make from their silence in that regard.

I would like to talk about nexus just a little bit, Slide 24 please. And I think this is important for a couple of reasons. First, the Petitioners, they

want to limit the secondary considerations. I don't like that word, I like objective indicia, because they're not secondary at all.

It's objective evidence of whether something's obvious or not as opposed to the subject of would have, should have, could have hypothetical skill of person in the art test. But the suggestion is that well, you can't show nexus on anything past something that we already have in Grisham, so there's no nexus to any of the other evidence. I don't buy that for a couple reasons.

One, Grisham isn't the invention, if it was, they would have had a 102 ground. They didn't put it in under 102, it required some modifications. Number two, you can't knock claims down by saying, "Okay, Claim 1 is obvious, so now I'm going to treat that as if it was prior art, and now the combination is this dependent claim with that." That's not fair either, each claim stands on its own.

And I think the overall industry reluctance to innovate that we talked about before speaks to that. So you got to go to every claim and say, "The secondary considerations apply to it." And in a lot of cases they do because it's a long felt need, skepticism in the art, reluctance to innovate, that applies across the board.

JUDGE AHMED: But it's evidence that Patent Owner has submitted, right, it’s the claim charts that you put together against the independent claims of the ’131 patent, so --

MR. SCHODDE: Right.

JUDGE AHMED: That's what we have to look at to see if that's driving whatever the secondary considerations are.

MR. SCHODDE: And Claim 7 as well.

JUDGE AHMED: And claim, yes.

MR. SCHODDE: So there's a GPS combination as well.

JUDGE AHMED: Yes.

MR. SCHODDE: So I think that's where it's concentric. But the law is that you don't have to have perfect concentricity, is that a word, concentricity, in order to have a nexus. And once we establish a nexus with the product and a claim, it's just back to them to prove that there is no nexus.

And again, all of this evidence about these other features drove demand and whatnot, a lot of that evidence is in their control. They got their customer for Helix, there's nothing about what drove the demand for those sales.

They got hundreds, thousands of employees working in the space, dozens of consultants, there's no counter-declaration saying, "No, what's really driving this market, to your point, is something other than the invention."

And the bottom line testimony from both Mr. Marchi and Mr. Gunther, and we've cited it, is not withstanding their cross-examination saying well this is a feature and this is a feature, they always came back to, yes, but the reason the customer buys it is for collision avoidance.

They don't want their stuff to run into it, they don't buy it because it's got a membrane over the keypad or because they really like to buy from Metrom, or some other, it goes with the machine all the time. Those are usually the reasons why there's no nexus. They buy it because it works, because it performs what the claim says it does.

JUDGE POWELL: Do you tie -- you say collision avoidance generally speaking and I don’t want to give you too hard a time about that,

but do you tie the collision avoidance that's the secret sauce, in a sense, or that's the desired outcome, do you tie that to specific claim limitations that are critical for that collision avoidance?

MR. SCHODDE: Yes, I think we should drill down into the dependent claims, they all relate to collision avoidance because they are, you know it's part of the system. And I think the conundrum that we have is if we claim chart down all the way into the dependent claims, then they're saying that, "Oh, the only reason you will sell it is because of this fifth dependent claim down here, that's the only thing that matters." I just, you start slicing the loaf a little too thin.

Collision avoidance, broadly speaking is shown by the claim charts on 1 and 7, that's, you know, those are obviously the broader independent claims. And from there, you know, we can engage.

What we ran into in this case is, the Petitioners won't engage. They're taking shots at it, but they aren't putting any, you know, there's no counterfactual evidence in the record, truthfully, to say that that isn't the reason that people buy the system.

JUDGE POWELL: So, are you between a rock and hard place? You, under current Federal Circuit law, you theoretically have to deal with co-extensiveness for your nexus. And you're telling me that your claims, independent Claim 1 and various dependent claims have different scopes so then that makes it tough for you to establish co-extensiveness with those different claim scopes? Is that --

MR. SCHODDE: It's impossible. I would, I think it's impossible to establish co-extensiveness and then do that for every single claim. It, because then at what point does it become not co-extensive.

JUDGE POWELL: It's an interesting thought that I've never, it had never occurred to me so far.

MR. SCHODDE: I don't agree that the law requires that the co-extensiveness be perfect, especially where you've got a product which is covered by the patent that we're talking about here, like being on a fence, and that's the object of the commercial success and the subject of the secondary consideration. I think when you've got that, you should already be there. I think a lot of these other cases the features are a lot more peripheral, there's something going on factually which gives you the good reason to separate the claim from the invention.

JUDGE POWELL: Well, I will admit that nexus law is a little complicated and difficult for me, so --

MR. SCHODDE: Yes.

JUDGE POWELL: And I think I can do it competently, but --

MR. SCHODDE: Frankly, I just don't know when you are going to get a better nexus than this one, at least from an eye test, if you look at the patent and the product that we're selling and the claims, they're right on top of each other, so --

JUDGE AHMED: Don't we have to account for Grisham itself and say to the point of the secret sauce, don't we have to say "This is what the invention came up with that's driving all of these secondary considerations." How do we account for prior art that's basically maybe not 102, but pretty close?

MR. SCHODDE: Well, that's where you're into the obviousness, in obviousness land. We're talking about objective indicia, and that's why I think we're driving this to the industry itself. It hates, they hate change, they

hate innovation, they're skeptical of all this. We've got some good testimony from all of the different declarants that we had about how reluctant they are to try new things, how afraid they were of interference.

Grisham doesn't have everything for that Claim 7, Grisham doesn't have GPS in conjunction with UWB, that's just not in there, and a lot of the other dependent claims as well. And I think what the Petitioners are trying to do is take Grisham, and then say that's 102 art. And then try to knock down and then say, "Well, you've got this and now that's art, so that's not a new thing." And then kind of serially sort of domino down the claims that way.

JUDGE POWELL: So, yes, so he hit on something that was probably my next topic is I'm struggling a bit with. Grisham shows at least a lot of what's in Claim 1. And yes, Petitioner characterized that challenge as a 103. But in the absence of something compelling in Patent Owner's briefs about why there's something in Claim 1 that's not in Grisham, then how do we get past the precedent that says "well, if the prior art’s already got the important stuff in it then, commercial success and various other objective indicia really aren't very persuasive?” If that makes sense.

MR. SCHODDE: Well, that's the balance that you have to strike as a Panel. I would simply respond is because the secondary consideration, the objective indicia are overwhelming. I don't think I've ever seen a case that had this solid of a timeline and copying thrown in as a secondary consideration.

Grisham went into the drawer, our product went into theirs, and I think that when you look, they don't even really fight us on that. I mean,

you were asking earlier, well, didn't you have a remedy, do you want a deposition. They don't want a deposition, that would just nail it down more.

We all know what happened, they gave the tribute of their praise to the prior art, they gave the tribute of imitation to the invention. And I think at some point, you can over -- even in a really close case, you can overcome it with a strong enough showing on the objective indicia and that's what we think we have here, even on Claim 1.

I think we certainly have it on Claim 7, there are some valid technical reasons why you wouldn't, in the art want to combine GPS with this, had excellent testimony on that point. But even Claim 1, I think we got a compelling case. How much time?

JUDGE AHMED: Twenty-seven more minutes.

MR. SCHODDE: Twenty-seven more minutes. I did want to save some for rebuttal and I don't want to steal all of Mr. Chiplunkar's thunder.

JUDGE AHMED: That's just you're opening time, you have ten minutes saved for rebuttal.

MR. SCHODDE: Okay. Excellent. So --

JUDGE WHITE: So let me ask it a different way. One of the things I see here that could be an issue is specificity. Collision avoidance is the goal of what you're trying to get to. But when we look at the claims, are there specific things that we can pull out of the limitation and say well, this is the limitation that we should key in on, and that was definitely the thing that when you went to go buy this AURA System, that was what you were really looking for and not just the generalized notion of collision avoidance.

Because I think that's where it gets to be a little trickier because generally, you want to avoid a crash, but that's not what you are trying to say here.

MR. SCHODDE: And you can't claim that.

JUDGE WHITE: Right.

MR. SCHODDE: I claim a device that avoids a crash. All claims are combinations of limitations. And all claims are combinations of old elements. It was Chief Judge Markey said only God works from nothing, man assembles old elements. So I think it's unfair and contrary to sound principles to say, okay, well this non -- you know, this is a limitation that we're going to focus on as the only thing that drives a sale.

Because now you're breaking the claim down into a limitation analysis when you are in obviousness land. It's a combination of limitations, none of which they can find all of within the prior art. So necessarily, you're doing this would have, should have, could have, combination.

And I think a lot of what's going on, you heard some of this, is that they are using the fact that we did it as a template for how they are going to reassemble the prior art. That's hindsight, you know, you're supposed to avoid that. Objectively, we came up with an invention, no one thought it was going to work, it did work, the industry started praising it, the Petitioners copied it. That's powerful. And I don't think that you stop with Claim 1, I think that runs all the way through the patent. Because every claim stands on its own.

JUDGE AHMED: Perhaps you can talk about some of the other secondary considerations. So, on skepticism, what part of the claimed invention was the industry skeptical about?

MR. SCHODDE: Sure, so I think it goes to definitely use generally, it's going to be the use of radio, terrestrial radio, and a method of avoiding collisions between trains. There's a lot of skepticism in the industry about that. Now they're going to say, well, Grisham solved that problem. But Grisham didn't solve that problem, because you've got to modify Grisham, that's was, that's their position, it's a 103 modification.

And there's also skepticism about using multiple radios, so a UWB radio with a GPS radio with a communications radio. And there's some great testimony that we cited in that regard from Kurt Gunther and from Carl Conti as well. They don't want interference, and why, it's because it's a safety application. And if the radios are stepping on each other, you've got all kinds of problems.

So they're reluctant to make that combination specifically, I think, if you're looking for something, you know, to kind of hang your technical hat on. That's what I would be pointing to, it's the, it's a safety application in a conservative industry. If the radios start stepping on each other, that's really bad, so they don't want to attempt it.

JUDGE AHMED: But don’t some of the references do that, like Nixon and Suzuki, they use UWB with GPS and multiple communication technologies at the same time and none of them complains about having an issue with it?

MR. SCHODDE: Yes, well, again, Suzuki, I think, is in the automotive space, it's not a railway space. And I'm losing it on Nixon, I think, just I'm going to phone a friend on Nixon. But the fact that you can find here and there some suggestion, well, maybe this would work, but objectively, this is the objective evidence, that's just not what the industry

really believed. Again, you can pick and choose from the prior art all the limitations you want, but at the end of the day, it's an obviousness case, not an anticipation one.

JUDGE AHMED: How about copying, and don't we need some -- maybe not direct evidence, but something to show that if you're looking at Mr. Garcia, that he took pictures or some prototype, maybe blueprints, something like that he took with him when he left in order to be able to infer that there was copying here?

MR. SCHODDE: Yes, there's a thread in the cross-examination and in the briefing, and I think the argument. The suggestion that we have to prove somehow that Mr. Garcia committed a crime. You don't have to commit criminal theft to copy. He can come about the information legitimately, and then he just copied, because it's a good invention, it doesn't mean he's a thief.

And I think our witnesses in that regard are being asked that question and it's a rather provocative one, do you think he's a crook. Not a requirement for copying, they're being diplomatic. The problem that we have is the evidence that would show that it wasn't a copy, is entirely in their possession.

If you go back to the timeline, 22, the reason that I've got braces around that date, Garcia joins Piper in 2020, is because his LinkedIn page is wiped, and we put that exhibit into the record, his LinkedIn page doesn't say where he worked before or when he started at Piper.

And when we raised this issue, there's nothing in the Reply about when he actually did start, I mean, they're cross-examining our witnesses about Garcia, they know this is coming. But at no point do they even say

when he actually did start at Piper. Same thing for the introduction to the Helix System, that's the reason I've got braces around it. That's the best we could figure out from public sources.

We were denied the motion on discovery, we put it in anyway, they had every chance to respond to it, they don’t even respond with basic stuff. And I think the inference that you can draw, and you've got this case in our briefing, is that when something is uniquely in the ability of a party to prove, and they don't come forth with it, you can infer that it would have been bad for them, that that's the reason that they did it.

It's not because of the procedural schedule or because it would have been hard to get a deposition or because, you know, they would have needed more time to do briefing. It's because it would have been devastating to their case. That's why they didn't do it. So we put it out there, I think we've got a prima facie case that they had access to it at least through Mr. Garcia.

I think it then goes back on the Petitioners to come forward with something to show that they didn't do it. But there is nothing, not even basic facts, instead they shifted to this idea that well, we did do it, but we did it before Mr. Garcia was hired. But just five years after, you introduced it to the market, which again, even if you're not making a finding on copying is a different finding, but also as an objective indicator that it's not obvious because of the long delay, only after we proved it out has it been adopted.

JUDGE WHITE: Talk a little bit about Mr. Garcia's access, because he has what, a year working with the system? Tell me a little bit more about him?

MR. SCHODDE: Sure, so let's put up Slide, and there's testimony in the depositions on this. He was working with a company called Parsons,

Slide 40, please. Parsons is a consulting engineer, they are working with all the different bidders with the MTA for a project in New York. And they're hired to sort of supervise everyone.

Previously, Parsons had been working with Metrom directly in a teaming arrangement on another project for the Boston Transit Agency. In the course of that work, he gets direct access to everything, he's under the hood.

Metrom is not a big company, we're talking about a handful of employees. So access to everything comes pretty readily because there isn't a large enterprise to get access to. So he's under the hood, he's understanding the technology, he's seen how we make it work. And then he leaves, he goes to Piper, and then they introduce Helix, that's the copying timeline.

JUDGE POWELL: So --

JUDGE WHITE: You go ahead.

JUDGE POWELL: Okay. On this thread that if somebody could present the evidence, they have the evidence and they declined to do so and there would be an adverse inference perhaps drawn against them, is there any distinction between circumstances where they might need to prove something that's affirmative and circumstances where they need to prove a negative? Because I'm a little mindful here that the situation here might be somewhat that they need to prove the negative, prove that Garcia didn't copy and that gives me a little pause on this matter.

MR. SCHODDE: Sure. There's elements of both here, frankly. Some things that are positive that they could have proved is we did this before Garcia joined us, that's entirely within their control. The only thing

they actually put in and with no declarative support, just a tiny argument, is a press release that doesn't really tell you what they did, certainly not enough to develop a claim or redo a claim chart.

If that's their defense, Mr. Garcia is not a thief because we did it here, they've got that evidence, they can produce it, that's positive as opposed to proving the negative. And there are positives even in the copying timeline, Mr. Garcia didn't join us until very late in the game in this month, here's when he actually started.

We started developing Helix before he joined. Here's the project initiation memo, I mean, these things don't happen in a vacuum, there would be tons of documentary evidence in that regard, but there's no effort. And in fact, when this first came up, and I think you asked this during the motion stage, you know, what relief do you want, they don't want relief other than relief from the evidence. So --

JUDGE AHMED: Well, they got admissions from your witnesses saying that he's not a thief, there is no litigation against Mr. Garcia, why is that not enough, I mean?

MR. SCHODDE: Because that's not the standard, copying doesn't require thievery. It just doesn't, I don't have to prove you are a thief to prove you are a copyist. You can go to the library and copy something that's in the public domain, that's not a crime. Copying just means I'm aware of the technology and I copied it so I could do it myself.

In some context, that might even be completely permissible. It's not you can do it in the patent context, but you risk getting sued for patent infringement, that's why we're here. But it's, you know, I don't have to prove

that he is a crook, I just have to prove that they copied, and it doesn't matter whether it's criminal or it violated an agreement.

I mean, certainly nothing would have stopped anyone from going out to a train, a piece of this maintenance of way equipment on siting, going all over it, taking measurements, and taking it back to the shop, I mean that's, you know, that would be copying, it would not be criminal. So it's a distraction to say oh, you know, they can't prove we're thieves. Because that's not what we have to prove, we just have to prove that there was copying. And I think we got more than enough in the record to create that inference.

And then there's this Slide 41, to your point, positive versus negative evidence. There's all kinds of positive evidence that could have been developed that, you know, there's nothing on, no response, none. And it's because it would have been unfavorable to them. I think that's, it's not because they don't have resources or time or energy for it, it's because it would be bad for their position. That's what you can conclude from this.

JUDGE AHMED: And how about the second part of their argument that Helix is not commensurate with Claim, the claim invention, at least Claim 1, because Helix is a much bigger system, it's not just what's claimed in Claim 1?

MR. SCHODDE: Yes, well we made the read as best we could based on the material that we had, the same way that we did it for our system. If there is some, to your point, positive evidence that the reason their customer bought it, was because they really, really like this unclaimed feature that has got nothing to do with our invention, that's positive evidence they had in their power to produce.

They didn't do it, they still haven't done it and here we are at the hearing and they haven't even asked for relief from your rules to do it, knowing that it's a huge issue in the case. So, you can conclude from that that if we did get the evidence, it would show that Amtrak absolutely bought it because it does all the same things our system does. I wanted to save some time for Mr. Chiplunkar before we got to our rebuttal.

JUDGE AHMED: You've got ten more minutes.

MR. SCHODDE: Okay. Can Mr. Chiplunkar have my remaining ten and then we'll save ten for rebuttal, sir?

JUDGE AHMED: Yes, sure.

MR. SCHODDE: Okay. Thank you.

MR. CHIPLUNKAR: Good evening, Your Honors, Rajendra Chiplunkar. I've got ten minutes, so I'm going to try to make this fast. And if you could go to Slide 43. So this is what I was going to have as the outline of our presentation. I'm pretty sure I'm not going to be hitting every point here.

But I want to address some of the questions that Your Honors asked regarding the Grounds and try to explain to you why the prior art reference doesn't meet something, why Douglas doesn't meet something, or why McDaniel is not combinable with Nixon, of, or with Grisham or with Suzuki. But where I want to start with this and we touched on this point about what is the person of ordinary skill in the art, what is this person and a lot of time was spent on that question.

And what I've come back to is that their expert, Mr. Andrews, has no railroad experience. He has no railroad experience, he's trying to put a

system for railway collision avoidance by picking up different pieces of discussions from different patents.

And he might be free to do that, as long as he can show something in the record that a person of ordinary skill in the art would want to do that, or would want to take them. He, you know, we will not dispute that he perhaps has found limitations in different patents.

But when it comes to putting these references together, his testimony, if you look at his declaration, is conclusory, a POSITA would understand that they will work, period, end of story.

There was a case from the Federal Circuit, *TQ Delta v. Cisco*, where the expert's, ipse dixit, that's what they called it, "I say it and so it is." That doesn't carry the day for them. If they want to rely on obviousness but they don't want to meet their burden of persuasion, by coming forth with some evidence more than "I see it and I say it, and by the way I don't have any experience in the railroad art." He frankly admits it.

And I want to go to a portion of his deposition testimony, Slide 48. At his deposition he was asked, what do you cite to when you make these combinations or what is the motivation. He comes out and says "A person would have understood," so a cite to what a POSITA would have known. And now, he's not in the railroad art. There's a lot of background knowledge that people carry with them.

And I don't have to cite to a separate reference for every single assertion that I make if I understand what a person skilled in the art would have known, I can rely on that. But that's just, that any expert can come and say that's what a POSITA would do and they would meet the burden of obviousness.

1 You cannot carry a burden of persuasion by just saying, "Believe me,
2 a POSITA would do it." And it comes back to this, combining UWB and
3 GPS, he said that's a secondary, an objective indicia argument that we would
4 not put these two technologies together, that was the prevailing wisdom.
5 A question was asked, you haven't cited to a reference that teaches or
6 suggests the benefit or, you know, says that, "Oh, there won't be a drawback
7 if we put them together." He says, "No, I've not cited to a specific reference
8 for that."
9 In fact, if you look at paragraph 176 and 177 of his report, he just
10 goes, he has not cited to a single reference other than the knowledge of a
11 POSITA to render Claim 7 obvious. It goes on endlessly, a POSITA would
12 know this, a POSITA would do this.
13 And the problem becomes clear because all of his reasoning, it doesn't
14 stand the test of a reasonable analysis. He, Mr. Andrews, says with respect
15 to the GPS range, you would want to put GPS together and you would want
16 to put UWB together. Why? To get more accuracy.
17 Elsewhere in his declaration, he admits that GPS has errors of up to 30
18 feet, 15 to 30 feet. How does that improve the accuracy? His comeback to
19 that is, because when a train is far away, you want to know well in advance,
20 UWB's limited range, you want to know well in advance where the train is.
21 But he hasn't put a reference forward which allows one train to tell the
22 other train using some other technology, how to communicate those GPS
23 coordinates. He is only relying on UWB. UWB's range is limited to 20
24 meters, 40 meters.
25 What is the point of two different trains knowing their GPS locations
26 when they cannot communicate it? He just said you would communicate

using UWB. The trains are already close, GPS is useless at that point in time because those coordinates can only be communicated when the radios are within 20 feet, when UWB communications can be received.

So that is an example of how, if you analyze his reasoning, you can poke holes in it. And he didn't, we brought that up, he didn't come back with a counter-declaration or anything of that sort. They just took, they just made attorney arguments.

JUDGE AHMED: So, is the argument that there is no prior art reference that teaches transmitting GPS using UWB, or just using the two technologies together?

MR. CHIPLUNKAR: He didn't point to a reference. If his reasoning was, GPS, you want to know well in advance that these trains are, you know, on a collision course. How would one train tell the other train if it's on a collision course, if the only other reference you have is a UWB reference whose range is limited?

How would you tell -- he doesn't do that critical analysis, you know. He could have gone and found a third reference, he could have done something else to have his, to make his reasoning bullet proof. He just says, I don't need a reference, I don't, you know, ipse dixit, I said it and so it is.

JUDGE WHITE: Are you telling me that an electrical engineer wouldn't understand how you could communicate GPS coordinates?

MR. CHIPLUNKAR: There is no reference.

JUDGE WHITE: But we're talking about this person of ordinary skill in the art and I asked if this person had to be an electrical engineer, and whether they needed a bachelor's degree, and the answer I got was yes, this person would likely be a bachelor's degree and the electrical engineering is

the background that both sides are pointing to. Are you trying to tell me that an electrical engineer wouldn't understand how to communicate GPS coordinates?

MR. CHIPLUNKAR: But the only technology you have to communicate the GPS coordinates, is UWB, which is limited in range to 50 meters. I'm attacking Mr. Andrews' rationale. He says, you want to know that these trains are coming close when they are miles apart, so I'm going to communicate GPS, how? Because the only other technology to rely on in Grisham or in Suzuki, is UWB. That is range limited.

When two trains are close enough, they're already going to collide, what's the point of knowing their GPS locations? That was the motivation he provided, we are only attacking his motivation. And it's their burden in the first instance to come forth with a reasonable motivation, on what I think *In re Khan* says is something with rational underpinnings.

There are no rational underpinnings, because he just puts them together and as he goes around, you can read his deposition testimony, he just invents on the fly. Ask him a question, he's got a new reason for it.

JUDGE WHITE: We can talk about whether he was successful in this, but I think what you were pointing us to before was saying that they were making sort of generic statements about how this would be in the background knowledge of one of ordinary skill in the art. And I'm saying wouldn't just communicating coordinates just be something in the background knowledge of one of ordinary skill in the art, not necessarily limited to UWB, but there's multiple ways to communicate coordinates.

MR. CHIPLUNKAR: It's not articulated in his declaration, there's no evidence. In the first instance, we have to come forward with a reference or

a teaching, something that says, pardon me, GPS using radio frequency, I don't know, LTE technology, whatever you have a central, you communicate it, they have to make their prima facie case for not only finding the elements, but also for showing a motivation to combine and a reasonable expectation of success. They didn't do that. How much time do we have, Your Honor?

JUDGE AHMED: You have two more minutes before you get into your rebuttal time.

MR. CHIPLUNKAR: Okay. I want to address Claims 2 and 4, which is Slide 51. So this discussion about Douglas and the central tracking system. The important thing is, they admitted, because list of links to be traversed, what's communicated -- what's communicated, are the different links that a train will take once it's in the zone.

At any given point in time, I do not know where in that zone the train is. All Douglas does is it figures out if there's a conflict in the switches, my friend put up a picture there of the track interlocking. All Douglas cares about is, is this train at some point in time, going to be using the same link as this other train.

Is there a conflict at that point in time, because the switches open in one direction, wasn’t a switching open in another direction. That's what Douglas cares about. Douglas doesn't track the location, and that's our point.

JUDGE POWELL: Sorry, how precise, I would like to put a fine point on this if we can, maybe we can't. How precisely does the claim require determining the location?

MR. CHIPLUNKAR: Tracking location?

JUDGE POWELL: Yes, the tracking the location, how precisely does the prior art have to track the location to meet that claim, does that make sense?

MR. CHIPLUNKAR: Yes. It's, as the patent says, it needs to be precise. Now whether it gets into feet or meters, it's left up to interpretation as to what the art is, in the collision art, whatever they say they're going to require.

But nowhere in Douglas there's a tracking of any location, there's a train ID, they put it up on the screen, there's a list of links, but nowhere that tells you where is that train, precision, it doesn't even get to precision, because they're not, Douglas doesn't know where that train is, it knows it's in the zone, because they are all broadcasting this information.

All Douglas knows is to say, "Oh, you are train 1, you are going to pass Link 5, God knows when. And there's train 6, which is also going to be using Link 5, God knows when. Tell them there's a problem, there's a conflict, both are eventually going to get to 5." But there's no precision -- there's no precision, I mean. It doesn't track the location, that's our point in the context of the patent, we require something more precise, maybe a matter of feet, meters.

JUDGE AHMED: You know the track that it's on, and it's within that zone, isn't that enough to determine the location?

MR. CHIPLUNKAR: That's not the location, a zone is just a, it's just limited by the range of the Wi-Fi signal, that's what a zone is. The signal going to die off. So it's like coming with your phone into an area and you get a Wi-Fi signal. I, your phone is in the area and it can receive a Wi-Fi signal.

But that's not a, precise location tracking is something else, it's just not "I'm in the zone, I need to know" -- and it doesn't know whether at any point on them on which track it is, it knows it's on the zone, and it knows what tracks it's going to take. It cannot tell me that you are in the zone and on track 21 at this point in time.

The, you know, the real time aspect of that's important for collision avoidance. I mean, that's how you should be, a POSITA would understand what the claim requires, and that's how a POSITA would understand that Douglas doesn't teach that, that's our point. That you have to determine what track location means.

JUDGE AHMED: You're in your rebuttal time now.

MR. CHIPLUNKAR: I'm going to just take one minute. The separation distance, there is no disclosure of communicating separation distance if you look at the slide deck and the portions that we cited from their paper, they neglected to consider the transmission of separation distance. They read Claim 17 on Claim 1, Claim 17 and Claim 1 have different scope.

Grisham -- required the communication of separation distance in a count and tell you what happens in Grisham. You send a pulse, and that knows how far away it is, and there's a, put two radios together, and then this, this other one, the first way so you can know what the separation distance is. They figure out the separation distance, what is the motivation to communicate separation distance.

There was no motivation articulated because they did not even address and communicate a separation distance. Their papers just say used to send and receive data over the air. Claim 17 requires more than that. Their

allegation is not commensurate with the scope of the claim, there is no allegation.

You heard some arguments today, I trying to make sense out of it, but it was not articulated why in their Petition, because they're the master of the Petition, there was no articulation about the communication of separation distance. I think I'm going to reserve for rebuttal. Thank you, Your Honors.

JUDGE WHITE: Thank you.

JUDGE AHMED: You have about 8 more minutes for sur-rebuttal.

MR. WISNIA: Your Honor, how much time do we have in rebuttal?

JUDGE AHMED: You have 28 minutes for rebuttal, Mr. Wisnia.

MR. WISNIA: Thank you so much. I'm going to address certain issues, and my colleague Mr. Supko will address others.

All right. May it please the Panel, let me talk for a moment first about person skilled in the art. If we take a look at Slide 8 of our deck. I think we are in the unique spot of needing a Markman hearing on the construction of the person of ordinary skill in the art. So the question is what did we mean by using. So the language is POSITA would have a background in wireless electronics and would have at least two years of experience with using such electronics for control system applications such as collision avoidance systems or positioning systems. So this is the idea of an engineer using these systems to build these systems, to implement these systems.

It's not a matter of someone working the train and using the system. It's the use and implementation of these control systems is the point I wanted to mention on that. All right. In my earlier comments I said they haven't pointed to the secret sauce. What is different from the AURA system compared to what Grisham has taught us.

And each of you, in your own way, asked the Patent Owner that question and you didn't get an answer. You got, well, one was in the drawer and the other one was in the system. Well, what does that mean? There was no answer there because the answer is they haven't provided an analysis of that question.

So if you look at the question of correspondence or co-extensiveness or showing that it's relevant to the product, they did point to a particular limitation in the claim, but they said, "Aha, it's the use of UWB in combination with GPS," for example, just making that up.

And then if you pointed to a reference and said well, look, that's in the prior art, that's not good enough for them. In the *WBIP* case, there's a question, well what happens if it's the whole train as a whole, and all of those things are required for the commercial success, okay.

Again, all of those things are in Grisham, and secondly, there's no explanation as to how their system, even as a whole is different somehow from what Grisham's presented. And so my colleague would refer often to say, "Well, Grisham is a 103, it's not a 102, they didn't call it a 102, they must have modified it, there's some modification there."

But the question is, what's being modified and what matters, okay. First of all, anticipation is the epitome of obviousness. Grisham is, in my view, an anticipation for certain of the claims. So why wasn't it presented as an anticipation of 102 for certain claims. Well, it uses the term controller as opposed to processor and it talks, and there's a requirement that makes some sort of input to the display, okay, like shutting off an alarm, changing the color.

Those are minor differences, if any, in the claim. So we presented it as a 103. Those differences, controller versus processor, controller in 2011 is a processor, all right, aren't addressed that say that isn't the secret sauce, they haven't gotten up here and say "Aha, look here is why this is different, here's this is different, here's how we obtained the result."

The simple fact is the merits of the invention talk about the technical merits of the invention. Maybe they got a great salesman over there, maybe that's how they were able to get more sales than Grisham.

Maybe Grisham, the company decided they weren't going to invest the money to build out that product. Maybe they had a buddy that worked at Canadian Railroad and he was able to get a sale at Canadian Railroad. I don't know, it doesn't matter. Because the point is, a great salesman is not commercial success in the context of a 103 analysis. It has to be the merits of the invention, and they haven't put that forward.

JUDGE AHMED: What about Claim 7, where it uses GPS, they've charted that claim as well, and that's what they pointed to today.

MR. WISNIA: Judge Powell had an interesting conversation with Counsel on this issue as well. Are you caught in between a rock and a hard place on this, his answer was yes, I am. It's impossible for me to show co-extensiveness.

Well, the law is you've got to show co-extensiveness and it's not an impossibility. So if you're showing, and you take the position, as they have, this is their argument, not my argument, not the Panel's argument, their argument. Claim 1 is, of the ’131 patent, is co-extensive, they've taken that position.

That means that all of the necessary requirements of the AURA system are in Claim 1. That necessarily means that GPS is not one of those requirements. Because they've taken that position that it's not there. They've also taken the position that UWB is not a requirement of that system.

JUDGE POWELL: If I were to take the view that maybe they're arguing those things in the alternative, would I be wrong?

MR. WISNIA: I believe you would be.

JUDGE POWELL: This is a hypothetical, I haven't done it yet, but --

MR. WISNIA: They have not said this is doing it in the alternative, right.

JUDGE POWELL: Okay.

MR. WISNIA: Right, they're, it could have been easily said in the, I apologize.

JUDGE POWELL: That's fine.

MR. WISNIA: I didn't mean disrespect with that. They didn't take that position, right. And that would have been a choice that they could have made. They could have said, "I'm forecasting to you, Panel, that I think I'm going to lose on Claim 1 by telling you I'm really making this argument in the alternative," okay. But they didn't do that, it's a choice they decided not to make.

JUDGE AHMED: Because they also rely on the claims of the ’227 patent which actually recite UWB?

MR. WISNIA: They do, again it's a, you know, they had a choice in this, right. They could have chosen let's go in for a rifle shot here, try to

make our best argument on our best claim and see what we can get, but let's try to get all of it.

They made a choice, let's try to get all of it, they made that argument, and they're stuck with it. In addition, Suzuki teaches the GPS requirement. So even if you look, put Grisham aside for a moment, the idea of having UWB and GPS together is known in the prior art. The requirement to Claim 7 is no, they haven't explained to you again, where is the secret sauce here, on this point.

Okay. If we could, there was a discussion, I don't think I have a copy here, but on their, I think it was their Slide 22, Judge White, you had some questions about, well, how do I know this isn't capital expenditure versus rush to the market, I'm not quoting you exactly. Because that was the point they were saying.

Okay, well, first of all, they say well, it took us five years to get market acceptance. Look at the Marchi declaration, sales fall off a cliff, okay. They weren't growing, they fall off a cliff. Okay, why, because they weren't, people weren't in the cycle of buying new capital equipment, okay.

They had not identified for you in the evidence in this record what new customers, who are these people that finally accepted it, in 2018, where are they, they're not identified, okay. All right, there were some questions about Mr. Garcia. What did he know, who did he know, where was he?

As I said in the earlier discussion, he was not there when the product was issued or it was tested and demoed for New York in 2019, as shown on Exhibit 1057. That product, they've asserted is infringement, that's in the Complaint in the underlying District Court case.

That product is what they've asserted infringement against. And they said well, you know, maybe you asked them too tough of a question and our guys are just kind of Midwest nice, and so they didn't want to say anything to anybody about being a thief. If you take a look at our Slide 26, it's a different question, where I asked him, and you will see this in the dot, dot, dots there, if you go back and look at the dot, dot, dots, there's no discussion of being a thief.

So simply, "Do you believe, you, Mr. Gunther, believe that David Garcia took the knowledge he learned from you and wrongly use it in the Piper products?" The answer: "I can't prove this, I cannot do it in a court of law, with what I have physically observed."

It doesn't say thievery here, it doesn't say sort of crime, he should have called the police. Do you think he wrongly used your information? The answer is he couldn't prove it.

JUDGE AHMED: Can you address the argument that because the Petitioner has not put any positive evidence either from Mr. Garcia or otherwise, we should draw an inference from it that there must be copying?

MR. WISNIA: Sure. So they cite the *Graves* case, which is a 1800s Supreme Court case, which if you read that case and, cut through the old English, is dicta, even in that case. The reason they did that, is there is no case in administrative settings, such as here in an administrative setting, that allows for such an adverse inference. And there's good reason, right.

If all we have to do is get up and make some sort of spurious allegation, and then all of a sudden I have the burden of putting in all sorts of evidence, I mean, why couldn't they have gotten up here and said not just Garcia, everybody, they all stormed our office one day and they ripped apart

our product. All of a sudden I have to put in evidence to rebut that, if it's just some sort of allegation.

That's not the case, and I suggest that there's no PTAB decision, there's no Federal Circuit decisions, allowing for an adverse inference in this situation, especially where the discovery has been denied by the Board, right. I don't have a duty to rebut phantom evidence in this case.

JUDGE POWELL: So, sorry to interrupt again.

MR. WISNIA: Please.

JUDGE POWELL: I'm back to this testimony about "I can't prove it." And in that vein, they say imitation is the sincerest form of flattery and I think probably, I mean, I don't know how this comes out, when all the wash is done. But I think Patent Owner may have a good point that for purposes of objective indicia in patent law, copying isn't necessarily even any sort of indication of wrongdoing.

It's just that when people go out and copy something, it must mean that they're flattering the original one. And so, I guess you could speak to that, perhaps more about this testimony?

MR. WISNIA: Sure. I don’t think that there's any question that he's not talking about thievery here, okay. Now, if the question is well, the word wrongly is in the question, and maybe they're allowed to do it, but wrongly would include civil laws, which would include infringement.

And they said, you can copy it, you could end up in patent infringement as he's alleged in this case. Now, and I think that if you look through the further testimony of Mr. Gunther, it was, this is not a point he was turning. He was not saying, well, maybe he rightly did it, but I can't say

that he wrongly did it. He just was testifying, I think a fair reading of his testimony is, "I can't prove that they used it."

And really again, kind of the key issue here is that they've got Exhibit 1057, it's all being done before Garcia gets there. You have the applications being filed, Exhibits 1056.

And I think even Counsel pivoted here with me, and so now maybe it's not Garcia, but they were out there for a long time and it was public, and they could have got it from that stuff. There's no evidence in the record at all. That's not the test, right.

And otherwise, why isn't the answer patents are public, you could have just read the patent and done it. And the law is that you need to show copying of a particular product, okay. You need to show specific access to that product, okay. And they just don't -- they just don't have it.

There was a question, I believe this was from Judge White, about specificity and what's the level of specificity that we need in a case like this. An example I always think about is, to be honest, decades ago when I was a patent examiner, I think they taught us in the PETTP, patent training, that the example is JFK, John F. Kennedy didn't invent the rocket that took us to the moon. All right.

Him announcing that we shall get to the moon by the end of this decade, he doesn't become the inventor of the rocket ship that got us to the moon. By the same token here, you're just saying oh, some sort of collision avoidance system, we have some sort of collision avoidance system and that's not good enough.

It has to be the particular limitations, what is the merit of your particular system, what is the secret sauce of that particular system that

allows you to obtain this, what do you want to call it, objective indicia, do you want to call it secondary considerations, whatever test you want, whatever language you want, what gave you that special sauce, what gave you the ability to achieve something.

And the answer is they haven't identified that as well, okay. And they certainly haven't identified anything in Claim 1 of the patents. And, you know, as we just discussed, they have made a choice to avoid a co-extensive analysis.

I was kind of thinking about the way to address this, it's almost as if, when you do this analysis, you think of the claim and instead of saying Claim 1 comprising, you think of Claim 1 consisting essentially of these things. It's kind of, it's not the greatest analysis but it's close enough maybe for discussion.

And so it could, that requires them to show not only are they practicing the claim, but they don't have other elements of the claim that matter, okay. And they've taken the position that Claim 1 of the ’131 patent doesn't have, has all the requirements of AURA and nothing else that matters.

Well, that means GPS doesn't matter, that means that UWB doesn't matter. And UWB of course, in any event, is required expressly by Grisham and GPS by any account, as expressly taught by Suzuki. So there is nothing that they can particular point to on that matter.

JUDGE AHMED: What about using it in context of the railway systems, because Suzuki does not, right?

MR. WISNIA: Suzuki is not express to a railway system. We don't think that that's required, I mean, for the reasons that are described in the

analysis. First of all, Grisham talks about a hybrid analysis, right, you have cars and you have trains, right.

You would think that if you wanted a national system associated for collision avoidance, there's a lot more cars than there are trains, so you would start from the car solution and you would move yourself to the trains. And of course, as our expert testifies, trains is, to a certain extent, a simpler problem than cars.

Because you just have fewer degrees of movement, of freedom, right. In other words, the train is going to be on the track, and the car could be moving lanes, it could be it's harder to keep track of. But the underlying issue, are people on a rail or a road, or you're in line to hit somebody, hit each other, is the fundamental same question, and the person of skill in the art would recognize that.

And of course, even in the patent at issue here, they talk about these, I think the term is a HyRail, which is a hybrid in itself, which is, you know, one of these moments away vehicles that you drive on the road and you can drive on the -- you can drive on the train. Okay. So that tells us that this is a very close analog in a natural place where people are going to to do their analysis.

The final point I want to make wasn't addressed clearly, but just as a lot of the evidence they put in this case is specific to maintenance of way analysis. And of course none of the claims are limited to maintenance of way analysis. Grisham teaches it expressly, but again, going back to the co-extensive point, if they want to narrow themselves down, they needed a claim to do it.

And that's, for example, in the *JE* case, where, I forget the exact part at issue, but it had some sort of fan deficient, had some wood item that they had been using, and what really drove the sales was the fact that it had this lattice structure. But none of the claims required the lattice structure.

And so the court said well, there's no correspondence, there is no co-extensiveness. That may be great for you that you're selling all that product, but I can't use it in my 103 analysis. Unless the Court has questions, the Board has questions on this point, I'm going to cast in my towel.

MR. SUPKO: Thank you, Your Honors. I have two very quick points to make on the merits before I'm going to turn the floor back over to Mr. James to hit on the Motion to Strike.

First off, on the combination of GPS and UWB, and the context of the Grisham plus Nixon grounds, Mr. Andrews wasn't just throwing out motivations off the top of his head. He gave four full pages of an explanation of the motivation of combined GPS with UWB in Grisham.

It said, at 1003 at paragraphs 176 to 179 cited at Paper 5, pages 35 to 36 and it even cited a patent in support of that, it was the Arthur reference, Exhibit 1037, and he explained how GPS and UWB each had their strengths and are complementary, and they are already put together in Nixon. So he wasn't just blue skying here, there was evidence there.

The other point that I would like to make on this combination of Grisham and Douglas, Your Honor asked how precise location has to be. Counsel said, "Well, it's got to be precise." Well, that's not what the claim says. Claim says location, track the location.

They never asked for a construction of the term location to be precise location. They were happy with the broad term location, that's what the

claim says, that's what Douglas tracks. Thank you. And I'm going to turn it over to Mr. James, unless Your Honors have any questions.

MR. JAMES: Thank you.

MR. SCHODDE: I'm sorry, are you going to the motions now, before we go to our, because we reserved some time for rebuttal on the merits.

JUDGE AHMED: It's all the same time, you have eight minutes for surrebuttal. They are using, they still have about eight minutes of their time.

MR. SCHODDE: Okay. So you want to wrap the remaining motions into that?

JUDGE AHMED: Yes.

MR. SCHODDE: Okay. Thank you.

MR. JAMES: Thank you, Your Honors. Let's go to Slide 63, please. I'm going to be addressing our Motion to Exclude where we request that the Board should exclude UWB opinions provided by Mr. Conti in his declaration at Exhibit 2012. I heard some references to Mr. Conti providing support for some of the secondary considerations and some of these opinions are subject to this Motion to Exclude, which I think is relevant.

JUDGE AHMED: I will just ask a basic question. Isn't this a case of what's good for the goose is good for the gander, you're saying Mr. Conti has no experience in UWB systems, they're saying Mr. Andrews has no experience in railway systems. How should we end up on both these experts?

MR. JAMES: Yes. So I think there's a difference here because Mr. Andrews, he does have the experience with UWB, they are claiming he doesn't have experience with railways. And there is a difference between Mr. Conti who is providing background opinions on UWB at the time of

invention, the failure of UWB communication systems, interference between UWB and GPS when he doesn't have the experience.

As opposed to Mr. Andrews, who has significant collision avoidance experience and is talking about how the systems are found in prior art reference that sometimes deal with railway vehicles, but also deal with other vehicles, and their only complaint is, "Well, Mr. Andrews hasn't dealt with that on a railway, on a railroad."

So those are two, the gap between them is too different. And we're not suggesting that Mr. Conti's entire declaration is to be excluded, we're really going after the specific opinions he has about what happened in the prior art with UWB.

JUDGE AHMED: So, what's the authority, is there any Federal Circuit law that requires an expert to have personal experience in a given aspect of an invention before he or she can testify about it?

MR. JAMES: It's, we're looking at the Federal Rule of Evidence, 702, and it's not just the experience that he has, it's also that the expert has to provide testimony that's based on sufficient facts and facts or data. And if the witness doesn't have any experience about UWB, and he's making claims about UWB, then there is no factual support coming from his prior experience or what he's done in the past, it would need to come from somewhere else. And then if it's not also then coming from somewhere else, then you're running into a 702 problem. So if we --

JUDGE WHITE: Would this go to more the weight and credibility than whether we need to actually exclude it as inadmissible?

MR. JAMES: Well, 702 is specifically inadmissibility and so that's the reason it would be excluded. It can also weigh in on a weight basis. One

of the IPR regulations, 37 C.F.R. 42.65(a) states that "Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight." So the no there is the exclusion, but we recognized in our papers that should Your Honors not grant this Motion to Exclude, in the alternative, you could grant little weight to these opinions.

So if we turn to Slide 64, we see in paragraph 41 of Mr. Conti's declaration, he has been asked to opine on the state of railroad collision technology and UWB at the time of invention, in addition to general skepticism with using UWB. But in his deposition testimony, Mr. Conti admitted that he has never worked on any UWB systems. So as far as factual support for those particular opinions, it can't be coming from his prior work and/or experience, because he hasn't had that experience with UWB.

Additionally, he provided opinions about long felt need on Slide 65 at paragraph 42. He provides an opinion that there was a long felt need to prevent collisions. And in the papers on this motion, Metrom admits that long felt need means that the problem the invention solves has been present in the industry for a long period without a solution.

But during his deposition, Mr. Conti admitted that his opinions that he is providing here are not based on the industry, they're just based on his personal lack of awareness. Particularly, he has an opinion that was unaware of the use of the narrow band radio to communicate training orders and movement authority before 2011. He admits that's just based on his personal lack of awareness, he's not opining that that technology did not exist in the industry.

Similarly, with respect to his lack of awareness of a system for preventing collisions on maintenance of way vehicles, again, just based on his personal lack of awareness, not saying that that technology was not present in the industry. So for a opinion with respect to long felt need that needs to be on the industry, he's not providing factual support here based on the industry.

If we go to Slide 66, in Paragraph 50, he provides an opinion that there had been a failure of every other UWB/radar communication system that was on the market so far. But during his deposition, he explained that he wasn't aware of any UWB/radar communication systems on the market by 2012.

So if he's not aware of any systems, then he can't also be, he can't be aware of any failure, there just was nothing there for him. And he's not claiming that there just was nothing there. He's claiming that there was specific failure, something tried to be there and then failed. So there's a lack of factual support there.

Additionally, if we go to Slide 67, on Paragraph 71 of his declaration, he provides opinions about the interference between GPS and UWB. We've already established that he doesn't have UWB experience so therefore he also doesn’t have experience on the combination of UWB with GPS. It's like if someone doesn't have experience with peanut butter, they're also not going to have experience about peanut butter and jelly.

JUDGE AHMED: You're almost out of time, if you want to wrap up.

MR. JAMES: Yes, so because Mr. Conti's UWB opinions lack the proper factual support required by Rule 702. In addition the fact that there

was a lack of personal knowledge on the matter, move to strike to Rule 602, the Board should exclude his UWB opinions. Thank you, Your Honors.

JUDGE AHMED: Thank you, Mr. James.

MR. SCHODDE: How much time?

JUDGE AHMED: You have about eight minutes.

MR. SCHODDE: I would like to have two minutes for Mr. Ruben to wrap up, it would be a fitting end to have our LEAP practitioner wrap it up for us. So please don't let me run into Mr. Ruben's stand.

I thought it was hard under the Petitioner's test to have a nexus before Mr. Wisnia got up. After I heard that, now it's gone beyond impossible. Not only do I have to have perfect co-extensiveness, I can only pick one claim.

Everything else that it doesn't even apply to, because I've now conceded that there can't be, you know, can't be objective indicia for anything else, and I got to have a product that is perfectly co-extensive with claim scope to occupy the market, otherwise my product isn't co-extensive. I mean, it's layers upon layers of impossibility, that just isn't the law.

You don't have to be perfectly co-extensive, you just have to have product that's covered, a success in the market, that should be sufficient. The facts, the cases that go otherwise are factually distinguishable, they just stray, you know, way outside.

They got a commercial product on the market that they can demonstrate with evidence is commercially successful for some other reason, like the fishing, or with the lattice. They didn't go there, I heard for the first time in this case, a reference to a capital cycle. There's nothing in the record about a capital cycle, that is non-existent, at the last second thrown out by Mr. Wisnia.

I have no idea where that came from, and if anyone would know of anything about a capital cycle and thought that was a real defense here, it is Thales and Siemens who sell billions with a "B" in capital equipment to the railroad industry.

This is not capital in the sense of, you know, a giant tamping machine, it's an accessory add-on, it's not subject to those kinds of forces at all. There's no evidence about any of that. Slide 36, Midwest nice, they put up another slide where our witness says well, I can't, you know, personal knowledge swear that he copied it, that's our witnesses being honest.

They're told to testify to what they know, to what they, a percipient observation of. Of course, Mr. Gunther wasn't, short of breaking into their factory, wasn't sitting next to David Garcia and watching him design their Helix system, how could he? It's impossible for him to know to a testifying certainty that that's what happened. All we can do is present the timeline, the evidence that he had access, that he had knowledge of the system, that speaks for itself to a point.

And to Mr. Wisnia's point on the administrative law, that Supreme Court case is still good law. I mean, you can Shepardize it, cite it out all over the place. Forgive me, I'm unaware that adverse inferences didn't apply to administrative proceedings, I can't believe that that is the case.

Certainly if we just toss out an allegation with no proof, you don't have to come back and rebut it, but once you come forward with some positive evidence that something happened, I think the silence is agreement. You have to come back in rebuttal with something or there's an inference that whatever you did have, because you controlled it, is going to be bad for your position.

We heard again, point of novelty, secret sauce, hundreds of ways to do this element, but claims are combinations of limitations. You've got to look at the whole claim, there's no one limitation that drives novelty. It's a combination of limitations, claims as a whole, that's black letter law.

And by focusing on one thing and saying, "Oh, that's the secret sauce," that's inviting legal error. And sure, there are hundreds of ways to do limitation X. There are millions of ways to combine limitation X, Y, and Z when you factor in that there might be hundreds of ways to do that.

But there's only one invention, it's the claim combination, and that's what they just can't come up with, that's why it's a 103 case. And it's our invention that they copied, it's our invention that's in their product, and it's our invention that is not obvious. How much time?

JUDGE AHMED: You're almost out of time. But I have a question, to Judge Powell's point, is there anything in your papers that suggests we are not, for co-extensiveness purposes, that we are not stuck with Claim 1 and the other claims that you have mapped are basically in the alternative, so we can look to those other claims that are mapped against the AURA system.

MR. SCHODDE: You can view it as an argument in the alternative. I'm just not sure that's the right thinking, I mean, I just don't know that the law says you can only get one claim and if you lose that one nexus, then we'll go look at this next one, and if you lose that one, then we'll go look at that next one.

I just think that that strikes me as a not very workable approach to this nexus problem. I think that all claims are independently evaluated. There is good case law on the point that you don't domino down the chain, you don't

say well, this claim is invalid so this one is just this little bit difference and now I will treat that claim as prior art.

And Mr. Wisnia's point, and to not, this one not, and now that that's not, you know, I just said, you know, that's you just don't do that, you've got to consider the whole thing as a whole, and that's where you run into the objective indicia in this case, which I think weaves through the entire, you know, the entire claim set. The industry just didn't believe any of this stuff would work. I will turn it over to Mr. Ruben so he can have his last two minutes, unless there is any last second questions from the Panel.

Oh, one other thing, they said you sued it in the MTA, that's Exhibit 1010. You'll find the claim chart from the ’227 patent on page 32, and what you're going to see is there’s limitations in there that we put under Rule 11 under the safe harbor, because we just didn't know, so reasonable opportunity for discovery is likely to show that. So we suspected what that system might look like, don't have access to it, use the safe harbor, and we have no idea whether or not that was Helix. They certainly weren't advertising Helix at that time, Helix came later. Mr. Ruben?

MR. RUBEN: I'll be quick. Thank you, I'll be quick. Mr. Conti has decades of experience of designing safety systems in the railway industry and specifically collision avoidance systems. That makes him uniquely qualified to testify, not only as an expert under Rule 702, but about his personal observations under Rule 602, and that's exactly what he did. He designed the system, the safety system collision avoidance system, during the entire span of his career.

Excuse me, at the time of the relevant time of invention, it was not being considered, and that's what he opined on. What Petitioners are asking

is a Catch-22, they are wanting somebody to say that I did not consider UWB in designing a safety system, but I also have extensive experience in UWB for these types of systems, and that's just simply not feasible.

And the last point I want to make is that Rule 702 is a threshold. It says that if you have the qualifications based on experience, education, et cetera, then you are allowed to offer opinion testimony. And opinion testimony allows you, and I think the *Daubert* case, a wide latitude to research topics and to provide an opinion that your overall qualifications as an expert support.

JUDGE AHMED: Thank you, Mr. Ruben. Thank you everyone for those excellent arguments, and thank you again for participating in our LEAP program and also for coming down here for this hearing. We've come to the end of our hearing, and the case is submitted. We will get a final written decision out within the one year deadline. I request that you hang around for a minute in case the court reporter has any questions, but otherwise we're adjourned.

(Whereupon, the above-entitled matter went off the record at 6:09 p.m.)

PETITIONER:

Howard N. Wisnia
WISNIA PC
howard@wisnialaw.com
Vincent J. Galluzzo
Joshua H. James
Kassidy L. Schmitz
Mark M. Supko
CROWELL & MORING LLP
vgalluzzo@crowell.com
jjames@crowell.com
kschmitz@crowell.com
msupko@crowell.com

Steven A. Moore
DORITY & MANNING, PA
smoore@dority-manning.com

Greg S. Nieberg
WOLF GREENFIELD & SACKS, PC
gnieberg-ptab@wolfgreenfield.com

Thatcher A. Rahmeier
Zachary D. Kachmer
FAEGRE DRINKER BIDDLE & REATH LLP
thatcher.rahmeier@faegredrinker.com
zach.kachmer@faegredrinker.com

PATENT OWNER:

Gregory C. Schodde
Alejandro Menchaca
Ronald (Hank) Spuhler
MCANDREWS, HELD & MALLOY, LTD.
gschodde@mcandrews-ip.com
amenchaca@mcandrews-ip.com
rspuhler@mcandrews-ip.com