

UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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PARROT S A and PARROT, INC , ) Case IPR2014-00730

    ) Patents 7,584,071  
    ) 8,106,748  
Petitioners, )  
vs            )  
              )  
DRONE TECHNOLOGIES, INC , )  
              )  
Patent Owner )

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Deposition of DR RAFFAELLO D'ANDREA

Thursday, January 8, 2015

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The deposition of DR RAFFAELLO D'ANDREA, called as a witness by the Patent Owner, pursuant to notice and Rules 26 and 30 of the Federal Rules of Civil Procedure, and 37 C F R 42.53, pertaining to the taking of depositions, taken before me, the undersigned, Melissa L Fenster, a Notary Public in and for the Commonwealth of Pennsylvania, at the Offices of Beck & Thomas, P C , 1575 McFarland Road, Suite 100, Pittsburgh, Pennsylvania 15216, commencing at 8:22 o'clock a m , the day and date above set forth

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COMPUTER-AIDED TRANSCRIPTION BY  
MORSE, GANTVERG & HODGE, INC  
PITTSBURGH, PENNSYLVANIA  
412-281-018  
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1 EXHIBITS (CONT )  
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3 2009 Declaration, '748 286  
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**IPR2014-00732**

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1 proceedings that we have against Parrot. Are you  
 2 familiar with those proceedings?  
 3 A I am.  
 4 Q And we invited you here today so that we  
 5 could take your deposition in connection specifically  
 6 with the IPR Proceedings. Are you aware of that?  
 7 A I am.  
 8 Q When was the first time you offered a  
 9 formal opinion regarding the validity of a patent?  
 10 A When was the first time I offered a formal  
 11 opinion about the validity of a patent? In these  
 12 proceedings.  
 13 Q So this is the first time. You're a  
 14 novice.  
 15 A I'm a novice.  
 16 Q How did you come to be involved in Parrot's  
 17 validity challenge?  
 18 A They contacted me in February of 2014.  
 19 Q Who contacted you, sir?  
 20 A I'm trying to remember exactly who it was.  
 21 I actually think it was --  
 22 It might have been you, James.  
 23 MR. HOPENFELD: It might have been.  
 24 A Yeah.  
 25 Q And he called you or --

1 DR. RAFFAELLO D'ANDREA  
 2 called as a witness by the Patent Owner, having been  
 3 first duly sworn, as hereinafter certified, was  
 4 deposed and said as follows:  
 5 EXAMINATION  
 6 BY MR. TABACHNICK:  
 7 Q Good morning, Dr. D'Andrea. Am I  
 8 pronouncing your name correctly?  
 9 A Close enough.  
 10 Q How do you pronounce it?  
 11 A D'Andrea is the Italian way, but D'Andrea  
 12 is fine.  
 13 Q When you introduce yourself, do you say  
 14 D'Andrea or --  
 15 A I introduce myself as Raff usually, so.  
 16 Q All right. I wouldn't be comfortable  
 17 calling you Raff in a --  
 18 A Whatever you're more comfortable with.  
 19 Q So forgive me if I --  
 20 A That's fine.  
 21 Q -- go with Dr. D'Andrea. Welcome to  
 22 Pittsburgh.  
 23 A Thank you.  
 24 Q My name is Gene Tabachnick. I'm one of the  
 25 lawyers representing Drone Technologies, Inc. in the

1 A He sent me an email.  
 2 Q And you were in Zurich at the time?  
 3 A No. I was in Sochi at the Olympics.  
 4 Q What did the email say, do you recall?  
 5 A The exact details, of course, I don't  
 6 recall, but it was along the lines of if was available  
 7 to participate in a patent litigation case involving  
 8 Parrot.  
 9 Q Okay. And had you ever participated in a  
 10 patent litigation case before?  
 11 A Not in a patent litigation case, but let's  
 12 say -- when was that -- maybe 15 years ago when I was  
 13 at Cornell University I was retained by Covington &  
 14 Burling to go over some patents.  
 15 Q To do a technical review?  
 16 A Yeah. A technical review, yeah.  
 17 Q Did either Mr. Hopenfeld or anybody from  
 18 Parrot explain why they wanted you to help them with  
 19 the patent litigation case?  
 20 A They asked me if was -- if I could help  
 21 them determine the validity of some patents.  
 22 Q My question was a little different. I'm  
 23 going to have the court reporter read it back.  
 24 A Sure.  
 25 (Last question read back.)

1 A Why me in particular, is that --  
 2 Q Yes.  
 3 A -- how I can read that question?  
 4 Q Yes.  
 5 A They felt that I was an expert in the area.  
 6 Q Did you feel that you were an expert in the  
 7 area?  
 8 A Absolutely.  
 9 Q Which area are we talking about, sir?  
 10 A Control systems, and specifically how they  
 11 relate to flying things.  
 12 Q To flying things did you say?  
 13 A Yeah.  
 14 Q Now, when you refer to flying things, what  
 15 sort of flying things are you talking about?  
 16 A Things that fly. I mean, I don't know what  
 17 more detail you want me to --  
 18 Q Okay. Well, we're not talking about birds,  
 19 right?  
 20 A No, no.  
 21 Q We're not talking about frisbies?  
 22 A No.  
 23 Q Okay. So we're talking about mechanical  
 24 devices or electrical devices?  
 25 A Yeah, electromechanical devices.

1 Q So airplanes or drones in this case?  
 2 A Right.  
 3 Q Or helicopters?  
 4 A Right.  
 5 Q Is that where your particular expertise  
 6 lies?  
 7 A My expertise is in controlling dynamical  
 8 systems.  
 9 Q Dynamical did you say?  
 10 A Yeah, controlling dynamical systems.  
 11 Q And is that different than controlling  
 12 flying things?  
 13 A Controlling flying things is one aspect of  
 14 controlling things.  
 15 Q So when they asked you if you could help  
 16 them with a patent litigation, how did you respond?  
 17 A I responded that I may be able to do it and  
 18 that it would depend on -- I would have to look at the  
 19 patents in question.  
 20 Q And why did you want to look at the patents  
 21 in question?  
 22 A To make sure that I would be able to offer  
 23 an expert opinion. If it was outside of my area of  
 24 expertise, I would have said no.  
 25 Q So you just wanted to make sure it was

1 within the realm of controlling dynamic systems?  
 2 A In the realm of control systems.  
 3 Q Of control systems. Did I miss hear you?  
 4 Did you say dynamic systems or --  
 5 A Control, control of dynamic systems, it's  
 6 very difficult for me to pinpoint the area of what I  
 7 do.  
 8 Q Okay. So let me just tell you you're way  
 9 smarter than I am about this stuff so if --  
 10 MR. HOPENFELD: No objection.  
 11 Q So if I take a little longer to understand  
 12 what you're saying, please bare with me. The other  
 13 thing is if I don't use the right terminology -- and I  
 14 will try, but if I'm not using thing right  
 15 terminology, then please let me know.  
 16 A Sure, sure.  
 17 Q If I ask a question and you don't  
 18 understand it, please --  
 19 A Absolutely.  
 20 Q -- tell me.  
 21 A Absolutely.  
 22 Q And I'll ask it the right way.  
 23 Also, you have to wait until I finish  
 24 speaking before you answer so that the court reporter  
 25 can get down everything that's said.

1 MR. HOPENFELD: And so I can object, if  
 2 necessary.  
 3 Q But if I ask a question and you answer it,  
 4 I'm going to assume that you understood the question.  
 5 Fair enough?  
 6 A Yeah.  
 7 Q All right. So you wanted to look at the  
 8 patents. How many patents were there?  
 9 A Two.  
 10 Q And was that the next thing you did? You  
 11 looked at the patents?  
 12 A I recall that to be the case.  
 13 Q Okay. Mr. Hopenfeld or somebody from  
 14 Parrot sent them to you?  
 15 A Yes, correct.  
 16 Q And do you remember what the patents were?  
 17 A Yes.  
 18 Q They were the two Lee patents?  
 19 A That is correct.  
 20 Q So patent lawyers tend to refer to patents  
 21 by the last three digits.  
 22 A Right.  
 23 Q So one is '071 and one is '748.  
 24 A Exactly.  
 25 Q We're talking about the same patents?

1 A Exactly.  
 2 Q Okay. And what did you do when you  
 3 reviewed the patents?  
 4 A I looked them over to determine if it was  
 5 within my area of expertise.  
 6 Q How long did that take?  
 7 A Maybe two hours.  
 8 Q Okay. And what did you determine?  
 9 A That it was within my realm of expertise.  
 10 Q Meaning that the '071 and '748 patents are  
 11 related to controlling dynamic systems?  
 12 A That is correct.  
 13 Q Are they also related to controlling  
 14 dynamic systems, and specifically how they relate to  
 15 flying things, such as airplanes and drones?  
 16 A I would say that they are.  
 17 Q So did you report back that it was within  
 18 the realm of your expertise?  
 19 A That is correct.  
 20 Q Who did you report that to?  
 21 A I believe it was probably James again.  
 22 Q Okay. Have all your interactions in this  
 23 matter been with Mr. Hopenfeld, or have you interacted  
 24 with other folks of the firm Parrot or on Parrot's  
 25 behalf?

1 A The only folks I have interacted with are  
 2 James, Tammy Terry, also a lawyer at the firm, and  
 3 some administrative folks for travel-related things.  
 4 Q Okay. What about any of the technical  
 5 folks at Parrot?  
 6 A No.  
 7 Q You have never interacted with any of them?  
 8 A No.  
 9 Q What about the business folks at Parrot,  
 10 have you ever interacted with any of those?  
 11 A No.  
 12 Q So after you reported back to Mr. Hopenfeld  
 13 that the '071 and '748 patents were within the realm  
 14 of your expertise, what happened next?  
 15 A I then told them that I was very busy and  
 16 that I would only be able to do it if certain  
 17 conditions were met, like, an estimate of the amount  
 18 of time it would take and the timeframe in which all  
 19 of this would take place.  
 20 Q Okay. Do you recall what you told them in  
 21 terms of estimated amount of time it would take, how  
 22 much you had available?  
 23 A Yeah. I think I had said something along  
 24 the lines of about 40 hours.  
 25 Q And was that within a particular time

1 period? Over the next month I have 40 hours? Over  
 2 the next 6 months I have 40 hours?  
 3 A What I remember it to be was roughly over  
 4 the next two or three months.  
 5 Q And did you spend those 40 hours?  
 6 A I believe that I did.  
 7 Q And did you get paid for the 40 hours?  
 8 A I did.  
 9 Q And what did you spend the 40 hours doing?  
 10 A I spent the 40 hours creating the  
 11 declaration.  
 12 Q Okay. You actually have two declarations,  
 13 right?  
 14 A Right.  
 15 Q And there's some overlaps? I'm not  
 16 imagining it was 20 hours for one declaration and  
 17 20 hours for the other?  
 18 A That is correct.  
 19 Q What else did you do other than creating  
 20 the declarations?  
 21 A Well, everything related to creating the  
 22 declarations, so perhaps, you're asking what did  
 23 creating the declarations involve?  
 24 Q Sure.  
 25 A Okay. Creating the declarations involved

1 going over the two patents very carefully,  
 2 understanding exactly what they said to the best of my  
 3 knowledge and to review prior art, and that would be  
 4 the bulk of it. That's what I used to create the  
 5 declaration.  
 6 Q How long do you think you spent going over  
 7 the two patents very carefully?  
 8 A Probably if I were to estimate, four to  
 9 eight hours each.  
 10 Q And how long do you think you spent  
 11 reviewing prior art?  
 12 A Probably maybe 10 to 20 hours.  
 13 Q Total or each?  
 14 A Total.  
 15 Q And then did also you spend time actually  
 16 putting fingers to keyboard or pen to paper?  
 17 A And creating the declaration.  
 18 Q That's all the part of the -- or was that  
 19 an additional effort?  
 20 A That was an additional effort.  
 21 Q Okay. How long do you think you spent  
 22 putting the declaration together, actually drafting  
 23 it?  
 24 A Creating the declaration took I would say  
 25 between 10 and 20 hours, and there's overlap amongst

1 all those things of course.  
 2 Q Of course. And did you draft the  
 3 declaration yourself?  
 4 A I did not do the typing.  
 5 Q Okay. Who did the typing?  
 6 A Tammy Terry.  
 7 Q Was she with you doing it?  
 8 A Yes.  
 9 Q In Zurich?  
 10 A In Zurich yes.  
 11 Q Is she a better typist than you are?  
 12 A Yeah.  
 13 Q Do you recall how long she was with you in  
 14 Zurich?  
 15 A Yes. 20 hours.  
 16 Q And was all of that spent doing the typing  
 17 for the declarations?  
 18 A Was the 20 hours spent doing the typing?  
 19 Q Yes.  
 20 A Amongst other things.  
 21 Q Okay. What other things?  
 22 A We also created the claim charts.  
 23 Q Anything else?  
 24 A Not to my recollection.  
 25 Q So you and Ms. Terry together -- or at

1 least she was doing the manual --  
 2 A Right.  
 3 Q -- effort of typing. You were giving her  
 4 the input I presume?  
 5 A Yeah. We were discussing the input,  
 6 correct.  
 7 Q And I'm assuming she was giving you  
 8 guidance on format and things like that?  
 9 A Well, she was taking care of the format.  
 10 Q So there was typing the declarations and  
 11 the claim charts. Anything else that you and  
 12 Ms. Terry did together?  
 13 A No. I don't recall.  
 14 Q How much time did you spend doing research  
 15 to identify the prior art that you needed for your  
 16 analysis?  
 17 A I would have included that in the 20 hours  
 18 that I did overall.  
 19 Q Okay. So how much time did you spend doing  
 20 the research?  
 21 A I don't remember. I remember the total was  
 22 about 20 hours. I don't remember the -- it's hard for  
 23 me to say --  
 24 Maybe ask your question again.  
 25 Q Okay. I apologize.

1 A Sure.  
 2 Q How much time did you spend identifying  
 3 prior art that you would review?  
 4 A I understand your question now. Most of  
 5 the prior art was given to me.  
 6 Q By whom?  
 7 A By James.  
 8 Q Mr. Hoppenfeld?  
 9 A Correct.  
 10 Q And when did he give you the prior art?  
 11 A I don't remember.  
 12 Q Was it before Ms. --  
 13 A Yes.  
 14 Q -- Terry came to Zurich?  
 15 A Clearly, yes.  
 16 Q Did you have an opportunity to review the  
 17 prior art before Ms. Terry came to Zurich?  
 18 A Yes.  
 19 Q Did you have any issues with any of the  
 20 prior art that Parrot's lawyers provided to you?  
 21 A What do you mean by "issues"?  
 22 Q I don't think this is relevant. Isn't this  
 23 the same as something else? Do I really need to look  
 24 at all of this? I have a better idea. Any of that?  
 25 A No, not to my recollection.

1 Q Okay. Were you satisfied that the prior  
 2 art provided to you by Parrot's lawyers was sufficient  
 3 for you to perform your analysis?  
 4 A Yes.  
 5 Q And you didn't feel the need to do any  
 6 independent research?  
 7 A Define independent research.  
 8 Q Research independent of what Parrot's  
 9 lawyers provided to you?  
 10 A I had my textbooks that I made references  
 11 to.  
 12 Q Which textbooks?  
 13 A Textbooks in my office.  
 14 Q Can you recall any of those?  
 15 A I have many textbooks. I don't recall the  
 16 specific one.  
 17 Q If my recollection is correct, you included  
 18 in your declarations a list of references reviewed or  
 19 something like that. Did you include the textbooks in  
 20 that list, do you recall?  
 21 A I don't recall. I can certainly have a  
 22 look at the declarations.  
 23 Q All right. But if you had relied on the  
 24 textbooks, you would have included them so that we  
 25 would know what you looked at?



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