

# Hosted Payload Episode 9: Danielle Pineres/ First Man

*Wiley Connected*

November 20, 2023

Wiley Connected · Hosted Payload Episode 9: Danielle Pineres/First Man Somewhere in between a small step and a giant leap, Planet VP of Regulatory and Compliance Danielle Pineres joins Henry Gola to discuss the 2018 Neil Armstrong biopic *First Man*. Meanwhile, Jillian Quigley talks about space law news, nerd recruitment, and running a Turkey Trot on the Orbital Debrief.

## Transcript

Henry Gola

Welcome to Hosted Payload, the satellite and space law podcast. From the Wiley law firm in Washington, DC, I am Henry Gola. Back in the 50s, the Russians definitely drew first blood in the space race. But, much like Ricky Bobby, the Americans knew that for getting people on the Moon, if you're not first, you're last. This ain't our first rodeo on Hosted Payload, so Danielle Pineres of Planet drops by to analyze the 2018 Neil Armstrong biopic, *First Man*. But first things first, Jillian Quigley joins me to report on all the satellite and space law news you can use in the Orbital Debrief.

Henry Gola

## Related Professionals

Henry Gola

Partner

202.719.7561

hgola@wiley.law

Jillian M. Quigley

Associate

202.719.4668

jquigley@wiley.law

## Practice Areas

Space and Satellite

Telecom, Media & Technology

It's time for the Orbital Debrief which means it's time to bring on Jillian Quigley. Jillian, how are you? Anything planned for thanksgiving?

Jillian Quigley

Hey Henry. It's great to be here and to be back and I do have some very fun plans for Thanksgiving. I'm in Boston right now, and this year we're going to have a totally new Thanksgiving tradition. I'll be running in a 5k on Thanksgiving morning. How about you?

Henry Gola

All right so you're doing a turkey trot! That's cool, I've done those before on Thanksgiving and my daughter Rose actually did her Girls on the Run 5k this past weekend so there's 5ks all around. I'm heading to the middle of Virginia to go into an Airbnb with some folks from my wife's side of the family, but enough about Thanksgiving. What is going on in space and satellite news?

Jillian Quigley

As always, it seems like there's a lot going on. First up, the 2023 World Radio Communication Conference, or as we like to call it WRC23 or "WRC", kicks off on November 20th in Dubai. There's a number of space related items on the agenda this year. Among them are whether to adopt some new allocations for Earth exploration satellite services and 6 satellite service Earth stations in motion, whether to add inner satellite service allocations to the radio regulations to facilitate inner satellite links, and then we're also likely to see some discussions about possible work 27 future agenda items relating to direct-to-device spectrum for mobile satellite services and equivalent power flux density limits for NTSO systems.

But since I'm an international law nerd, the agenda item I'm most excited about is agenda item 1.6 which is going to consider regulatory provisions facilitate radio communications for suborbital vehicles and so among other things. The member states are going to examine the status of suborbital vehicles and whether they need to be classified as very high aircraft., low spacecraft, or just an entirely new thing altogether. I'm also hoping that this agenda item is it has helped spur some conversations about the legal demarcation between airspace and outer space which is kind of a nerdy topic. But it's very fun and the question really gets to the heart of international space law because territorial sovereignty extends to Airspace but it doesn't extend to outer space and so the distinction will have implications on the rules of engagement in both domains as well as what types of activities and technologies can be permitted in suborbital environments and also how they're regulated. And so, I'm looking forward to seeing what discussions end up taking place on that.

Henry Gola

How large is the international law nerd community?

Jillian Quigley

There are at least 5 of us.

Oh wow! Okay, that's good, 5 and growing. All right interesting food for thought there. What do we have going on state side this month?

Jillian Quigley

Well on November 15 the White House's National Space Council unveiled its new legislative proposal for how to regulate novel commercial space activities to comply with treaty obligations under article 6 of the outer space treaty. The item proposes to split authority for space activities between the Department of Commerce's Office of Space Commerce or OSC and the FAA's Office of Commercial Space Transportation. The FAA, which regulates commercial launch and reentry, would also begin overseeing human spaceflight and the transportation of items in space. Commerce's OSC would be responsible for unmanned activities that aren't regulated by the FAA, including in-space servicing, assembly, and manufacturing or ISAM. I'm interested to see how heavily the 2 regulators are going to start leaning on experimental licensing especially when it comes to handling regulated activities using artificial intelligence or other highly novel technologies or applications.

Henry Gola

And of course, if these novel uses need spectrum, they still have to go to a third agency, the FCC. So areas are definitely moving targets for these regulators to keep up with. It'll be interesting to see where this one goes.

Jillian Quigley

Yes, definitely and my third update also relates to new space legislation, but this time from Congress. Mere hours after the National Space Council released its legislative proposal, the House of Representatives Committee on Science, Space, and Technology met to mark up the Commercial Space Act of 2023 also known H.R. 6131. The bill, if passed, would vest exclusive authority for regulating novel space activities to the Office of Space Commerce. Spectrum and launch activities would continue to be regulated by the FCC and FAA respectively. The committee didn't hold a final vote on the bill during markup so we'll need to wait until after Thanksgiving to see if it gets off the ground.

Henry Gola

All right, lots to work through there for agency jurisdiction. Interesting issues. Thanks so much for these updates Jillian and have a great thanksgiving in Boston! What is your goal time for your 5k.

Jillian Quigley

Oh! I'm hoping for sub 45 but it's been pretty busy and so I haven't been able to get out as much.

Henry Gola

My 10-year-old daughter just ran it in 30 minutes so get moving.

Jillian Quigley

Ah, last year I was doing that.

Henry Gola

All right well we'll have to do fewer orbital debriefs for you to hit that goal. Thank you Jillian!

Jillian Quigley

Thank you have a good day.

Henry Gola

Welcome back to Hosted Payload. Danielle Pineres is Vice President of Regulatory Affairs and Compliance at Planet, a leading provider of global daily satellite imagery and geospatial solutions. Danielle, welcome to Hosted Payload.

Danielle Pineres

Thank you! Great to be here.

Henry Gola

Awesome! So in this episode we're going to talk about the 2018 film First Man, starring Ryan Gosling as Neil Armstrong. The movie follows Armstrong starting in 1961 through several personal tragedies until the monumental Apollo 11 Moon landing in July 1969. Gosling teamed up again with La La Land director Damien Chazelle for First Man, which took home an Oscar for Best Achievement in Visual Effects. The film boasts an impressive 84 on Metacritic and is labeled a, "must see". Danielle in FCC parlance for First Man petition to deny or comments in support?

Danielle Pineres

Comments in support for sure.

Henry Gola

Tell me why.

Danielle Pineres

I was really impressed by this film. First of all, I came to it with not a lot of background and knowledge about the Gemini Program that led up to the Apollo landings or about Neil Armstrong himself and so it was really interesting for me to understand a little bit more about him and about the NASA space program that that led to the Moon landing. So it was fascinating, it was really well done. I think one of the things that I found most striking was the way that they put you in the seats of the astronauts themselves and so things you see and feel the shaking of the spacecraft and just feel the anxiety of having to you know work out things while a spacecraft is tumbling in orbit and so you really kind of get, as much as you can on the ground, a feel for what that might have been like. Followed by, you know for instance, when you know Armstrong is coming down the ladder onto the Moon you know, utter silence.

Henry Gola

Right.

Danielle Pineres

In comparison to the intensity of space flight, that was really cool.

Henry Gola

Yeah, a lot of those sort of first-person parts of the movie were chaotic right?

Danielle Pineres

Yeah!

Henry

Alarms going off and things like that. But yeah, compare that to the silence when he does get on the Moon, it was pretty spectacular. Definitely wanted the viewer to feel like they were in the X-15 space plane at the beginning of the movie and Gemini Eighth the lunar landing research vehicle that malfunctions. So, how would you describe those scenes if you were to use adjectives, how would you describe those scenes?

Danielle Pineres

Intense. Intense and chaotic was a good one with the alarms and everything going off, but in a really interesting way it gave me a new appreciation for what that must have been like.

Henry

Intense. Yeah. So I was watching at least part of it with my girls and they used the word claustrophobic is how they described it.

Danielle Pineres

Yeah!

Henry Gola

Because they're like is that real? Did they recreate that? Because they just had to you know, push them in lying down into this little tin can basically and then you know in each scene where they're going off on a mission, they close that lid right? And it's like you are sealed in there. So, I thought you know there are only 10 but I thought that was great.

Danielle Pineres

Yeah, that was a great choice of words! I think I actually, in talking to my husband about it too, I think I said that same thing like, "Oh this is making me feel kind of claustrophobic!" It's really intense.

Henry Gola

Yeah. What was the scariest out of all these scenes where we follow Armstrong? What was the scariest or most terrifying for you that he endured on his way through Apollo 11?

Danielle Pineres

Yeah, so many! So many of these that they did a great job highlighting in the movie. Probably the scariest for me was probably the Gemini spacecraft tumbling in orbit and, you know, they're getting very near to passing out as a result of that intensity.

Henry Gola

Yeah.

Danielle Pineres

And then Neil Armstrong finds a way to stabilize the spacecraft and that was amazing and kind of harkens back to that earlier part of the movie where he is training on the trainer vehicle where it kind of tumbles. It looks like an amusement park ride tumbles people over and over.

Henry Gola

Yeah.

Danielle Pineres

In training and he's like let's do it again! I guess it must have served him well.

Henry Gola

It's an amusement park ride I would not get a lightning lane pass for or anything like that. That's for sure. Hard pass.

Danielle Pineres

Definitely not! I would have passed on all of these experiences!

Henry Gola

What was the most exhilarating ah part of those scenes for you? I mean you mentioned the silence on the Moon, was that it for you or was it something else that he got to experience you know through the eyes of the movie.

Danielle Pineres

Yeah, I thought they did a great job highlighting those really special moments about being an astronaut and being in space. You know, starting with the space plane at the beginning of the movie where he kind of achieves being above the atmosphere and sees that kind of atmospheric curve around Earth and you just you can tell he thinks that's amazing and is very cool and very few people have gotten to experience that. So, it's those kinds of moments, that one and then you know later on the Moon kind of seeing Earth from the Moon perspective was pretty cool.

Henry Gola

Yeah, so there's a scene where Armstrong, midway through the film, is talking to a US Senator at like a schmoozy event and telling him how amazing it was that just 60 years after the first powered flight period, you know, they're flying rockets into space. What are your takeaways from that sentiment that he made clear in the movie?

Danielle Pineres

Yeah! I think it is amazing and it really struck me what they were able to achieve at NASA with the technology limitations of the time. You know I'm thinking about this movie but thinking about Hidden Figures, the book and movie, in the background too. Thinking about the human calculators, the people who are sitting doing the calculations for, you know, all the orbital trajectories and things that supported these missions. So, it is amazing what they but were able to achieve for the technology at the time. I was feeling bad for Neil he got the brush off from that particular senator in that scene saying yeah you know, no appreciation in Washington for the amazing technology change that we see.

Henry Gola

Yeah, but you know I mean, kind of the movie is about Neil Armstrong, and most people know who Neil Armstrong is and nobody knows who that is, they don't even name the senator. He's just the name senator, right? So maybe he got the last laugh there.

Danielle Pineres

Ah, true.

Henry Gola

So you know, same idea. Are we going to look back 50 years from now and marvel at how quickly technology has advanced in some other area? What do you think?

Danielle Pineres

Oh, for sure. I think we're seeing all sorts of technological change and it's amazing what space companies are doing now that maybe would have been unthinkable just a few years ago. You know I work at Planet as you mentioned, and just thinking about Planet's trajectory, we were among the first to put up a number, a constellation of low Earth orbit satellites and that really enabled us to offer a daily line scan of the Earth and that just would have been unthinkable at the time, Neil Armstrong's time, that a private company could do that. And you know, even since then, we've seen technology progress and it's really cool to be a space lawyer and working with these companies that are doing such great things. I think you know we're seeing that technological change in other areas too and AI comes to mind.

Henry Gola

Yeah.

Danielle Pineres

Think about what's happened even in the last year with the abilities of AI and all of the possibilities there are in terms of research and just all sorts of interesting applications. Also, you know with great power and great technological change comes great responsibility and so thinking about the implications for how law and policy need to react too.

Henry Gola

A subplot of the movie is the distance that grows between Armstrong and his wife, Janet, who's played by Claire Foy in the movie. For those who don't recognize that name, she played Queen Elizabeth in the crown in the first couple seasons. What did you make of the final scene of the movie where Armstrong's in quarantine after coming home from landing on the Moon and they reach out to touch hands separated by the glass.

Danielle Pineres



Yeah, you know I'll get to that, but as far as the broader theme of you know, seeing how the family navigates the husband going to the Moon and putting himself in these extremely risky situations. You know, we talk a lot about work life balance in our culture now and like that's the extreme right? It's just incredibly intense. You see Armstrong, you know lose colleagues and the fact that he was willing to continue to put himself on the line. you know is both incredible and also, as a wife and mother, scary you know. I was like telling my husband I'm really glad that's not your job! So, you know I think you can't expect someone to participate in in their job at that level and not feel like there's going to be some impact on the family too. So it was that was interesting and tough to see, but I'm glad they highlighted that as part of the movie to help us get to know Armstrong and his family a little bit better maybe than we did before.

Henry Gola

Yeah, I mean that was definitely one of the things that you were talking about before you didn't know about Armstrong, and I think that that was for me was seeing this side that he lost a daughter in 1961 and when I was looking up researching for this that him and Janet got divorced years later like he remarried after this, not shown in the movie. But you know just more things about his personal life that I wasn't even aware of, so that was interesting for sure. You know to me he was a man of his time, right? A little bit. He was one of these like strong silent types and like you know, not showing emotion throughout the movie until he gets to the Moon, as portrayed in the movie. But also, I think that attitude was sort of what got him through the various abnormalities that happened when he was in space. In other words, he kept his cool because he was just so hyper focused on the mission for better or for worse at home and I think the movie did a good job of portraying the tradeoffs of that and what that meant. In other words, you know I don't know if it wasn't Neil Armstrong, I don't know another personality type who could have handled that. But it also took an effect on his home so there were sacrifices that were made. That's my takeaway.

Danielle Pineres

Yeah, yeah for sure. I also was struck by you think about Neil Armstrong and, you know, prior to this movie I would have said that probably the most difficult thing he ever had to do was figure out how to get himself to the Moon and back with the support of NASA and his colleagues. But, man losing a child, that had to be probably the hardest thing as a parent to see. I was really touched too, I hope you give the appropriate spoiler alerts at the outset of the podcast, but yeah for those who haven't seen the movie. He has a bracelet of his daughter's, the daughter that he lost in 1961 and he, I don't know if this is true or not, but in the movie he leaves it. He leaves that bracelet on the Moon to kind of mark his daughter's passing and I thought that was a pretty special moment in the film as well.

Henry Gola

Yeah, it was definitely. It was the closure that he had been sort of avoiding. The grief he had been avoiding throughout the movie. You know, I think the movie was trying to say that death sort of was the, you know, the original impetus for him to put his head down even more and become this, you know, allow him to be the first person on the Moon. A lot of it though was just fate in general right? Like you mentioned, he lost colleagues

who were supposed to go before him and in the tragic test accident where 3 of his colleagues were in that fire.

Danielle Pineres

Yeah, talk about scary scenes. That was yeah.

Henry Gola

Talk about claustrophobic and scary scenes but you know just tragic. There was that, and they didn't show this part, but he lost 2 of his other colleagues who were just on a flight that crashed because of fog. So, it was just 8 years leading up to this that was just marked by tragedy after tragedy. I think that, you know, in the movie they kind of show him getting more closed and closed off as these occur. He you, know, in the test he loses sort of his best friend and confidant. The one who was trying to get him to open up. Ed White I think was his name. So, you know he it was interesting for sure. Um, my take, tell me what you think of this, at the end of the movie where he's touching hands with his wife through the glass is that you know he's taken this journey. He's landed on the Moon and he comes back with Buzz Aldrin. They're in quarantine and they're watching all the press clips. At this point right? They're watching the news coverage and how you know half a billion people watched it on television and it's a gigantic news story and a gigantic accomplishment. And then he's behind this glass and it's almost to me the glass represented that they may never ever be as close as they were perhaps at the beginning. And that in other words, he's almost like a museum figure now. He's like America's figure now he's lost. That's as close as they're going to get. Thoughts on that? That's a tough question.

Danielle Pineres

Yeah, that is a tough question! You know I wasn't thinking about it at all that way. But I can see from a director's point of view, for instance, that could be certainly a message that they'd be trying to communicate. I was thinking more about the family dynamics at that moment and thinking about what it meant between the two of them and you know Claire Foy is almost reluctant to approach the glass I think you know the feelings of that she must have felt of both I'm so glad you're back home and that you're safe and that my kids still have a dad and also I'm so incredibly angry at you for putting your life on the line this way over and over again. You know I'm kind of thinking about all those emotions she must have been feeling and I don't know his outreach to the glass almost looked like an apology to me like I'm sorry I put you through this and I am glad to be here, glad to be back.

Henry Gola

Yeah, yeah, no, that's true and you know that that that scene played out a lot during covid right? I think you know in 2018 there was hadn't been a global pandemic yet and post this, that's unfortunately the scene that played out for a lot of people you know being in quarantine and being separated from loved ones. So, I think if people were watching that movie now for the first time, they might have a different some might have a different viewpoint on that than they did when the movie first came out. The movie makes a point to show how before the Moon landing Russia was basically kicking the U.S.'s butt on most major milestones in the space

race, right? So how does that resonate today? Are there still analogs to this or has you know commercial space and commercial other sectors sort of taken over? Is there another race that would sort of capture the country's imagination like there was back then?

Danielle Pineres

I don't know if we could ever replicate that moment in time. I do think that there continues to be geopolitical challenges and geopolitical tensions in the space area and I think we do see some continued I don't know, pressure, challenge as a result of those geopolitical tensions kind of urging the U.S. forward to be to continue to lead in global technology whether that be in space or in other areas. And so I still think I do think it plays a role, but as far as that kind of particular moment in time, the space race between the U.S. and the Soviet Union in particular, probably will never see anything quite exactly like that ever again.

Henry Gola

Yeah, you know people always talk about today and you know how we're living in the most divided time ever. I didn't live in the sixties, but I've wrote about them a lot and the sixties sure seemed pretty divided. So the optimist in me has to think that if the Moon landing could sort of unite factions of the United States and kind of come together for this like achievement of mankind, maybe there'll be something like that soon or in the future for us today to help everybody come together. You know sort of to champion something that humans are doing but you know, maybe that's an overly optimistic view! But if history, if past is prologue. Maybe that'll happen.

Danielle Pineres

We can always hope there's no shortage of technology to inspire out there today and so I like the optimistic view and I share that.

Henry Gola

Yeah, and we're going back to the Moon, right? The Artemis missions are happening, and I think the second one is scheduled for 2024, which is the last test mission and then I think we're supposed to land four people on the Moon after that including the first woman and the first person of color so that's exciting all around. You look at the NASA page and it's a bunch of white men right who have landed on Moon so you know, hopefully that's going to change soon and inspire a new generation coming up here to think about what we could do with the Moon and beyond.

Danielle Pineres

Yeah, yeah, there's just in the space sector generally there seems to be a lot of excitement about the Moon. Planet and myself, we're focused more on Earth and imaging Earth. But, you know we have colleagues who are working on Cis Lunar communications for instance, in anticipation of more activity on the Moon and that's going to be something discussed at this World Radio Communications Conference that's kicking off in Dubai here soon. So there's a lot of excitement. New excitement I'd say a renewed excitement about the Moon and

it will be really interesting to watch.

Henry Gola

You know, nothing to do with the movie but I just had to ask you because you know you are at an Earth imaging company. How cool is it to see all these pictures from the James Webb Telescope knowing like what you all do imaging Earth and seeing like it's kind of facing outward. You know this like awesome sensor on this telescope. How is that?

Danielle Pineres

It is amazing. It's amazing. You know I can't, I wish I could tap my engineering colleagues here to appreciate the technological piece of you know everything having to align just right on that telescope in order to get the kinds of amazing images that it's been able to return. But I think it's fascinating. It's already spurred so much additional you know scientific discussion and upended theories we've held for a long time about deep space and the beginnings of the universe and so I haven't been following it super closely but I love that when I read you know Space Trade Press there's usually something new about what James Webb has returned and I do have a deep appreciation for the technology and all of the work that went into that mission and everything that needed to happen in order for that to align just given you know what I see and at Planet and the effort that goes into to Earth imaging.

Henry Gola

That's right, that's right. All right, any final thoughts on First Man? Anything I should have asked?

Danielle Pineres

No I think you captured it! Thanks for the opportunity to chat about it. It's probably not a movie I necessarily would have picked if I wasn't specifically looking for space movies for your podcast and I'm really glad I watched it. I took a lot away from it so thanks for the suggestion.

Henry Gola

It was cool and my kids watched it because of the Barbie movie because they're like oh Ryan Gosling! I'm in.

Danielle Pineres

Next on my list.

Henry Gola

All right Danielle thanks for joining us on this episode.

Danielle Pineres

Good to be here. Thanks Henry.