National Institute of Corrections Virtual Conference 2016 Transcript for Interview with Jonathan Rupprecht

Announcer: This is the podcast of the National Institute of Corrections Virtual Conference. Please join us November 9, 2016 for our third annual conference titled *Leading with Innovation*, where you will receive a full day of presentations, innovative chats, and networking all brought to you by NIC. Visit us at www.nicic.gov/go/VC2016 to register.

And now... here's a sneak peek!

National Institute of Corrections: Learners will understand some of the implications of drone use, both for criminal and law enforcement corrections use. That is the summary that we have for your sections of the virtual conference.

To begin it would be good to just talk about what your background is. You are a commercial pilot and flight instructor. But you are also connected with Rupprecht Law.

Jonathan Rupprecht: Yeah, my background is that I was a commercial pilot, flight instructor, was doing that and went to Embry-Riddle Aeronautical University. Later on I went to law school. While I was in law school, I was flight instructing, and in about a year before I was supposed to graduate, I took a class on…it was comparative law and we were supposed to write an essay on the two sides of law with two different countries to kind of compare and contrast. I did my paper on the integration of unmanned aircraft into the Japanese airspace versus the United States airspace, and see how the equivalent of the FAA over in Japan handled things and then also how the U.S. handled things. I took that information and then later on I published a book. I was asked to be a co-author on an American Bar Association book, and then I ended up starting my own law firm in January of 2015. I have been focusing aviation law with a focus on drones ever since.

NIC: In law school, do they have an actual program for aeronautic law?

How did you do that? Did you develop your own program perhaps?

Rupprecht: No, I actually had a professor at my law school who is board certified in aviation law, and I used his textbook and I took his class. I learned about aviation law from him. But that was manned aviation law, so it's weird how this drone thing is working right now. You have manned aviation and those rules and regulations and their guidance documents, and then drone law, which is this weird offset thing that's just different.

The FAA up until recently did not have any regulations that were specifically on point for unmanned aircraft. They were applying manned aircraft laws to unmanned aircraft. It became very weird and actually, which ones do you pick and choose to actually apply, and the FAA kept on coming out with more and more guidance documents which were not law and they were just the FAA's opinion on how to comply with the law. In that respect I was much more self-taught when it came to unmanned aircraft law. Because there really was no experts on the law, this is very, very new.

This current civil type of unmanned aircraft law that we're dealing with now. Even though the military has been operating and doing this stuff for a long time and the FAA has been dealing with the military and certain public agencies, the civilian sector is very, very new. Since September of 2014, it's when the Section 333 exemptions actually became available. September 2014 was really the first, was the start date for civilian commercial drones here in the United States.

The FAA was originally using the exemptions for civilian aircraft, and they will continue to use them up until a little bit here in the near future, but what just came out recently in the news was some new regulations which are going to be...They're far less restrictive than what the Section 333 exemptions were, so everything got a lot better for individuals wanting to operate drones, for, you know, prisons or law enforcement. That's a big boom right there that's come out. But the FAA is just continuing to evolve and morph.

The Section 333 primarily not going to be used as much as they were before, but then there's some issues the FAA hasn't thought about so they're going to probably bring them back in and maybe use them whenever they can. The best way to think about a Section 333 exemption, it's like that drawer you have in your kitchen where you don't really know where to store stuff and you just throw everything into that

one other drawer where there's like keys and there's like a battery. That key you never knew what it went to but you put it in there because you're like it's better to have a key than throw it away and need it later on. That's what a 333 really is in essence.

When you don't know what to do with it, you chuck it in there. That's how the FAA has been handling it, they've been chucking these drones into their other drawer, regulatory-wise.

Now we have the new regulations that came out, Part 107, most of our operations are going to be getting done there. But when we can't get it done there, we're going to have to go back to our good old trusty other drawer and get the job done that way.

These new regulations that are coming out are specific to unmanned aircraft. You take a test that's about $150, once you pass it, you have a remote pilot certificate that you can then use to operate drones commercially. Or even if you don't want to operate commercially, let's say you want to use it for a fire department, law enforcement, prison inspections, you could use the remote pilot certificate also and operate under Part 107 to do those type of operations as well. That goes into effect on August the 29th.

NIC: So there are new laws that were created specifically for drones and we can use drones in a number of applications like you were saying for example inspections and at a facility. When we get around to our presentation, you're going to be talking with us more about these laws that are specific to drones and maybe even some of these unmanned aviation laws that are still being applied to drones?

Rupprecht: We're going to be discussing the different types of aircraft statuses. Because just because it's an aircraft, just you can switch hats if you will and operate between public aircraft, between civil aircraft, between model aircraft. The same drone can have different sets of operating rules depending on what type of mission it's actually flying. You need to know about that and we'll briefly be discussing that in the presentation. Because depending on how you're actually classified for the purpose of the flight, then that's going to determine what set of regulations you're going to actually have to comply with during that flight. That's one of the important parts of the presentation.

In that discussion of how prisons can use unmanned aircraft, there's also a discussion of what laws actually apply to the civilians. Let's say

you have a drone flying around your facility, are they breaking the law? What are their restrictions? Are they doing anything wrong that you can call the cops on them to get rid of them or call the FAA to get rid of them?

In addition to that the FAA was given new powers under the recent re-authorization, that was passed by Congress about five weeks ago, that is going to allow the FAA to fine individuals, and actually probably DOJ is going to have to prosecute it. A $20,000 civil penalty for knowingly interfering with law enforcement. That's another provision there if that the drone is being used to harass law enforcement or wildfire fighting operations, that's a nice little penalty.

We're going to briefly bring up some other issues. What about jamming drones, is that legal? What can we do there? What about when a drone comes into our air-space, can we shoot it down? And all the legal concerns and issues around that. Those are some of the issues we're going to be discussing in this presentation coming up.

NIC: I did also want to talk about your book, what was your book on?

Rupprecht: Oh, I've done multiple books. The first one I did was a brief…it was called *Drones: Their Many Civilian Uses and the U.S. Laws Surrounding Them*. That book was primarily, it's like an upper level view of aviation law, of what's going on in the United States. Then it tracks from 2005 to about 2014 what was going on with unmanned aircraft, it really wasn't law, it was more like guidance documents at the time. It tracks that going through. It also briefly discussed how many different uses there are for unmanned aircraft out there.

There's quite a few uses out there for cinematography, building inspections, industrial inspections, real estate, law enforcement, firefighting, so I briefly outline some of those and also talk about the law. I also did another book called *Unmanned Aircraft in the National Airspace: Critical Issues, Technology and the Law*. I co-authored that book with some other attorneys and that was specifically...It's published by the American Bar Association focusing on unmanned aircraft law.

I did two chapters, one on the history of unmanned aircraft, the different reasons why unmanned aircraft were created over the years. We had the military aspect of that we needed drones to basically practice shooting down on. Most people don't realize that drones have interesting history here in the United States with some people that are very, very

well known.

Actually one of the most popular target drones was produced by an individual named Reginald Denny who was a British actor who came over to the United States and settled in the Hollywood area because he was an actor. If you actually watch some of the old Roy Roger movies, he was in one of them I know of that I watched. He was big into model aircraft and he developed a remote control aircraft that worked so well that the military, I think they bought 14,000-15,000 of these things during World War II for target practice.

At his plant, he called over to his good old buddy who was a captain in, I believe it was the Second Army's Motion Picture Corps, his buddy Ronald Reagan. Because remember this was Hollywood at the time, right? So Ronald Reagan sent over a private to Reginald Denny's...I feel like this is History Channel this whole way...He sent a private over to Reginald Denny's plant where they made these unmanned aircraft for targets. The individual took a picture of a woman that was working on the drone. That picture was later circulated around, that lady became famous, and that lady changed her name to Marilyn Monroe. She actually used to make target drones a long time ago.

NIC: Is this true?

Rupprecht: Yeah, this is actually all true, you can look it up. And then another interesting point, there was the B-24 Liberator, which was a heavy bomber. Everyone probably recognizes the B-17 Flying Fortress, well the other heavy bomber that the U.S. Army was using was the B-24. There was a Navy version of it called the Privateer. You can tell it's different because the tail doesn't have like two tails, it's just one, and there's kind of an interesting looking nose cone. And the reason why is it was a Navy one that was looking for subs, so it wasn't really designed to be a bomber that would go behind enemy lines and have to deal with fighters. It wasn't bristling with machine guns like the B-24s were.

Well, the Navy had this program and I believe it was Operation Aphrodite. They were trying to figure out a way to knock out a Nazi super-cannon. Okay, we had the V-1 Buzz Bomb and then the V-2 Rocket, which is what Hitler was using to bomb England with. Well he developed a V-3 weapon which was just a giant cannon that was just going to shell England non-stop, and they couldn't figure out how to destroy this thing. So their idea was well, let's take one of these B-24s, the privateer version, the Navy version, and let's just pack it full of

explosive. We'll have two of these aircraft flies up, Okay?

One guy would be piloting it, and he would, once it's off the ground, he would jump out. He'd parachute out over England and the other airplane would take control and they'd basically just cruise missile this thing, fly it straight into the V-3 cannon, try to blow it up. Well the individual of this one flight who took off, that was actually Joseph Kennedy, the older brother of John F. Kennedy, who was an army bomber pilot. They took off, and actually unfortunately the flying bomb he was in blew up with him in it and that's why you never really heard about that ever since. If you look through some old New York Times articles and stuff, you'll actually see some posts about it that he was actually killed unfortunately in that accident.

There's some weird things how drones have intersected with our lives here in the United States, you just might not have known about this. It just doesn't really bubble up too often.

NIC: Well is there anything that I didn't ask that you would like to share with everyone who's listening?

Rupprecht: Yeah, that I think they definitely want to pay attention to the questions we're going to be raising, and trying to at least as best as we can answer during the presentation. Can you jam a drone? Can you shoot down a drone? When can you? What's the ramifications if you actually do shoot down a drone? Because we have some serious issues here coming up with the drones, especially Bureau of Prisons, the National Institute of Corrections, that everybody's going to have to deal with this problem that is shortly here on the horizon.

They're starting to use drones to actually try to deliver contraband into prison. That's happening more and more around the world here, and how are you going to counter it? What are the legal ramifications? We're going to have to wrestle with these issues going forward. So this talk is going to basically set the foundation for, here's the talking points, here's the problems we see, and here's some of the break-off points of how we could try to resolve some of these situations. And how can drones be used in prisons to either do inspections or to operate more safely.

NIC: Okay, thank you so much. Great, great. Okay, well so I think that's everything, because we don't want to give too much away, but I think Johnathan, you've given us more than enough. I'm ready to ask you dozens of questions but we have to save some for the conference. Is

there anything though that I didn't ask that you would like to share with everyone who is listening?

Rupprecht: Oh yeah, I think that they definitely want to pay attention to the questions we're going to be raising and trying to at least as best as we can answer during the presentation. Can you jam a drone? Can you shoot down a drone? When can you? What's the ramifications if you actually do shoot down a drone? Because we have some serious issues here coming up with the drones. Especially Bureau of Prisons, the National Institute of Corrections, that everybody's going to have to deal with this problem that is shortly here on the horizon. They're starting to use drones to actually try to deliver contraband into prison. That's happening more and more around the world here, and how are you going to counter it? What are the legal ramifications? And we're going to have to wrestle with these issues going forward. So this talk is going to basically set the foundation for here's the talking points, here's the problems we see, and this is some of the break-off points of how we can try to resolve some of these situations and how can drones be used in prisons to either do inspections or to operate more safely.

NIC: OK, thank you so much.

Announcer: This has been a broadcast of the National Institute of Corrections. The views presented are those of the speakers and do not necessarily represent the policies or position of the National Institute of Corrections.

We hope you enjoyed this broadcast.

To register for the NIC Virtual Conference, please visit us at www.nicic.gov/go/VC2016.