

# FLYING TRUE & CLEAR: ROCKY MOUNTAIN UNMANNED SYSTEMS

*VP Of Technology Jon McBride Discusses Evolution Of Drones At Rodeo Consumer Electronics Show Event 40 Miles Outside Las Vegas*



*Standing out on the cusp of the desert 40 miles outside of Las Vegas, a drone rodeo is in progress. Different drones of all accounts wisp through a closed course while the heavy lifters show their wares. At this outpost called The Aerodrome, many drone outfitters in the cutting edge of the industry have come together as a new Consumer Electronics Show begins. Jon McBride of Rocky Mountain Unmanned Systems is a cowboy of note. He creates the heavy lift systems that can do anything from cinema filming to public land agricultural operations. He spoke to The Buzz about evolution, misconceptions and the changing world of drones including his own M600.*

**The Buzz:** Can you talk about the initial R&D for these kinds of industrial drones?

**Jon McBride:** Sure. Well, creating a drone...most people see the drone as being a multi-rotor type aircraft. And, in a general sense, most people think of drones as the ones that shoot missiles and stuff like that.

**The Buzz:** People just think video games.

**JM:** Yes. Because you play a video game you think you're going to know how to do this. To a point, it's kind of like that. Probably one of the bigger innovations that I had

seen recently was being able to do that thermal camera stuff... starting things on fire to see if I could see it, or trying to take my kids and throw them out in a middle of a field and see if I could see them, that was a really huge step forward.

**The Buzz: What about when the technology advanced for night ops?**

JM: Nighttime operations were just...that was just amazing. Being able to have a camera that actually worked that way was absolutely amazing. We moved forward and found okay, we could do this with it. We could do inspections. We could search and rescue. I mean, I've done a lot of crazy experiments to try to get these cameras on pretty much anything.

**The Buzz: What was the most extreme?**

JM: You could put it on the front of a gun if you needed to. (*chuckling*) I mean, you could because you've got a standing point. You could sell one out to a guy that does hog hunting. We made a hog hunting drone. It's called -- it's an eradicator, if you will, to be able to see the hogs-- but he put this awesome scope up on the front of his and was able to see the hogs from farther away. They're feral and, obviously, nocturnal, so they don't move during the day very much, but during the night, it's perfect.

**The Buzz: The other day, we were talking about crocodiles down over in Africa or even down near the Everglades...**

JM: In Texas, they have a lot of big game hunting spaces there. So they go out there and they just want to monitor how many of the animals are out there after a certain hunt and make sure that they're alive, doing what they're supposed to. But, for the most part, people aren't having to go to Africa in order to do these kinds of things. These [drones] are also used to do a lot of conservation stuff... a lot of animal counting trying to stay away from doing any kind of messing with the animals.



**The Buzz:** Can you talk about your experience outdoors since people are starting to get into VR but this is a way to keep the action moving outdoors?

JM: I have four kids. They've all grown up with this. My 15-year-old operates my camera. We've gone out on cinema shoots, and he runs the camera on the Inspire. I mean, it's just that putting us together as a family and kind of doing this as a group is really cool. We get asked to do a lot of fun things that are more than just having a camera on the ground.

**The Buzz:** What's an example of a fun outing?

JM: We went to the Utah State Fair. While we're there, someone recognized me and said, "Hey. You're the drone guy. You're the guy. I know you." Then he said, "Man, you don't happen to have one?" And I'm like, "Well of course I do. I happen to have one in the car." (*laughing*) So, of course my children are like, "Aw, dad, we're just here for the fair." But, at the end of the day, we just had all these great people that had a million questions on how it operates, what it does. You squash a little bit of those initial like, "Oh. You must be spying."

**The Buzz:** What would you say is the biggest misconception about this technology?

JM: Probably that everybody that buys one is some kind of a creeper. That's probably number one. Which is not the case. I mean, that is just not the case. Most of the people are just wanting to go out. A lot of them are photographers and videographers already. That's probably the majority of them. This is just another way to put it in a different space and try to do a different shot that they are just not capable of doing

from the ground. That's usually what it is. I mean, all these beautiful landscape shots...even with Vegas and taking pictures of that. I mean, gorgeous things that people can produce when they just can't do that from any other type of platform.

**The Buzz:** With the drones you have been testing and showing today at the Drone Rodeo, can you talk about their specific advantages and why they were built this way?

JM: DJI, you know, is obviously kind of the king in the drone community. They didn't ever really make a truly honest...what we would call it...a heavy lift ship... heavy lift meaning that I can carry a Sony Red camera or a large camera, something big...at least ten pounds with the gimbal. But the M600 here was developed as being kind of a heavy lift ship. She's very versatile in the flight controller. What I really like about the M600 is that I can put the Red on there today. And then in 20 minutes, I can swap it out and put a much lighter, lightweight camera like a Z30 on it. Between the two, I don't have to do anything but just trade them out. I don't have to get back in there and mess with the flight controller. I don't have to mess with the ship. I can just put it together

**The Buzz:** And the camera controller...it's all integrated.

JM: Yep. It's just all part of the ship. It's all part of it. There's very simple set ups between carrying a heavy lift to carrying a light lift. Now, heavy lifts, I did a test on YouTube. It was about 10 pounds and I could fly that for 18 minutes. Then I put the lightest camera payload and I was up at 41 minutes. So 41 minutes compared with 18...the payload amount...incredible.



**The Buzz:** Because we're here at CES, what is the importance of

that kind of connection to this community among the electronics technology crowd especially drone enthusiasts? Why was it important to do something like this here?

JM: I was at CES two years ago and drones were just kind of coming into play. I mean, to be honest with you...CES 2014 had a couple companies. In 2015, everybody had a drone. And then in 2016, man, everybody and then everybody had a drone. So it's kind of just created its own specialized market at CES. I mean, they now have a drone space. Before they were just like, "So what are you?" "Well, I have a drone." And they're like, "Well, does it have a camera?" "I do have a camera." "Well, we'll put you in the camera spot. So you're a camera guy, right?" They didn't even know how to classify anything like that.

**The Buzz: How do you stay competitive in this kind of market now?**

JM: One thing about Rocky Mountain Unmanned Systems is that we stay competitive in one specific part. We've niched out the industrial/public service side. We don't deal too much with other places. B&H Photo, or Amazon, of course, sells everything and everything. We don't deal with that kind of crowd as much. That limits how many people we are able to tailor because of what we carry. I usually tell people we sell Lamborghinis...we don't really sell the Hondas. That's the best way to explain it.



#### Tim Wassberg

A graduate of New York University's Tisch School Of The Arts with degrees in Film/TV Production & Film Criticism, Tim has written for magazines such as Moviemaker, Moving Pictures, Conde Nast Traveler UK and Casino Player. He enjoys traveling and distinct craft beers among other things.



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[Rocky Mountain Unmanned Systems](#), which specializes in drone based thermal imaging for police, fire and search and rescue. They've built hundreds of customized ships for film, agriculture, law enforcement, mining, construction, thermal inspection and many other industries.