10 Questions for Pavel Machalek, CEO of Spaceknow | NewSpace Global

March 12, 2015 12:13 pm | by David Bullock - Senior Editor

1. 1st Screen: When NSG Analysts look at a NewSpace company, they consider the founders’ track records very important. Of utmost importance, is a founder’s ability to take a previous start-up to exit. Please tell us about your entrepreneurial track record prior to working with Spaceknow.

Well, I only worked for one start-up before and I was an employee there. I wasn’t a co-founder. The start-up was called Weatherbill and was later called The Climate Corporation. I was starting and instigating remote sensing programs and making sure that the farmers across the US have access and can act upon the most recent and accurate weather data for each of their farming units. So, I was there for two and a half years and
the company was sold to Monsanto for about $1Bln. (Please see "Letter From the Editor" in the November 2013 issue of Thruster.) Afterwards, I left to found my own company. Seeing both the growth of the company and as well as the actual due diligence and eventual sale of the company was a really great experience and helped shape my perspective here on how we should do things at Spaceknow. The other co-founders also have start-up experience. One of the co-founders was a CEO two different profitable, growing start-ups and our designer worked in two or three different start-ups. So, it certainly helps that they have seen the whole life cycle of a start-up before.

Pavel Machalek, CEO of Spaceknow

2. 1st Screen: What is the organizational/management culture like for Spaceknow?

It’s a very good question. Our company is very small and is at the very early stages. It’s pretty flat. We all need to work around the clock to make it happen. So, there’s no management structure, so everyone has to do what their best at, and what they came to the company for. It is very much a “do” attitude, than a “manage” attitude. There is a certain level of synchronization that needs to go on. There is no management.

3. 2nd Screen: What markets is Spaceknow targeting and why those particular markets?
In general, we are talking in the satellite industry analytics market, which is a very interesting market because it’s growing rapidly. So, the satellite imagery and the sale of satellite imagery is a multi-billion dollar market in the United States alone. And that’s the sale of processed imagery that comes from the satellite.

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The analytic market is a highly fractured market in all the different verticals, for example, oil and gas, business monitoring or retail monitoring, or road monitoring, or land change detection, and environmental monitoring. The size of the overall satellite analytics market is growing and each vertical is experiencing rapid growth. Spaceknow will be soon releasing products in few select satellite imagery verticals, which have opened up due to decreasing imagery cost and decreasing computing costs. It’s a very exciting opportunity and I’ve never seen anything like this in a long, long time.

4. **2nd Screen: In general, where do you see markets around space-derived data headed?**

What I think is happening is that space technology and space engineering used to be something very elite, very expensive, very inaccessible. It’s the very opposite of that. Where it is going is getting very less elite, more accessible and cheaper. So once you make that happen, you allow a great many developers and a great many different companies to build really meaningful products that penetrate into the everyday human activity. Kind of the toothbrush test. Do you need to use it every single day? That’s what we would like to make happen. You need to use satellite imagery that you want to use and you need to use every single day. And we are very glad to be a part of trying to make that future come true.

5. **3rd Screen: What does Spaceknow’s cap table currently look like? Are you planning on raising capital in 2015?**

I can’t discuss the details of our cap table. We’re a privately held company. We’re well capitalized and in line with our aggressive expansion plans, so goes the responding capitalization needs. That’s about as specific as I could be at this point, but it’s positive. It’s highly positive.

6. **4th Screen: Please tell us more about Spaceknow’s**
products and/or services.

So our flagship product that we did last year, we did monitoring of industrial production rates in specific countries. By monitoring shipping capabilities and monitoring transportation hubs, we have been trying to replicate what called a Purchasing Manager’s Index (PMI), which is a survey that’s done in many different countries. It’s a phone survey where the HSBC bank calls the purchasing managers within different industries and tries to estimate the state of manufacturing. What are the order books like, how’s the supplies, how many employees do you have and then calculate a number for the manufacturing activity for that particular country. We tried to replicate that from space and see if we could by looking at a factory, correlate the activity to the PMI. We achieved surprising accuracy given how coarse some of our imaging data were then. For one major industrial country we monitored 6,000 different industrial locations for over 14 years worth of historical satellite imagery to obtain a month to month view of its economy going through a recession. We hope to take this concept to other product lines in other industry verticals.

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To summarize, it’s large scale analytics on large amounts of locations and each location is analyzed in a highly automated fashion and we derived in a meaningful metric that actually corresponds to something happening on Earth.

7. 4th Screen: What is the current state of your technology from a technical milestone perspective?

Without going into too much detail, we have the ability to obtain situational awareness on the vast majority of the Earth’s surface. We obtain imagery for a variety of imagery providers and analyze it on-the-fly, in other words it’s a service. It’s an API you can point anywhere on Earth and you can get the automated analytics response within 10 to 20 seconds, which includes the acquisition of the imagery from the imagery providers. The ability to provide satellite imagery analytics as a service. It’s here. We have it. It will be embedded into different products that will be launching over the course of the next weeks and months.

8. 4th Screen: How important to your technology are reduced launch costs, increases in launch rates, and increases in the total number of Earth observation
satellites?

Since we are a software analytics company. We don’t operate or launch our own satellites. It affects us indirectly. Decrease launch costs, allow more satellites to be in orbit and more companies operating more imaging satellites and bigger competition, which leads to higher quality and lower prices. Indirectly, this is how we decrease launch cost and lets us lower the cost of space technology overall.

9. How do you see the NewSpace industry in the next five years? How do you see it in the next 10?

[Laughter] Five years is about as far as I dare to project. As Richard [David] always said, it needs to continue to affect humanity here on Earth. It’s an enabler for human activity. As long as it enriches human lives, as long as it is relevant to all the 7 billion people or more. By the next 5 years, it will probably be 8 or 9 billion people. As more as that continues to be the case-- in other words, how does NewSpace development relevant to a guy in the slums in Rio, how does it relevant to a farmer in India, how is it relevant to a city dweller in Brazil. As long as it continues to be relevant as company’s serves their products, then the future of NewSpace is very bright indeed.

10. Last question: Do you want to go to space? Why or why not?

Yeah, I’d love to. I’d love to go. But only when it’s economically feasible. I am not willing to pay millions of dollars to go on an orbital flight or even suborbital flight. It just has to become safe enough and cheap enough for me to go really. I’d love to go, but I’m pretty busy making applications technology relevant here on Earth, so maybe that’s my sole role.

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