Constellations Podcast

Episode 23 – Free to air, Lasers and Predictions about LEO

Speaker: Jim Simpson, CEO, ABS – 20 minutes

John Gilroy: Welcome to Constellations, the podcast from Kratos. My name is John Gilroy and I'll be your moderator today. Our guest today is Jim Simpson, CEO at ABS. Jim can you give us a quick thumbnail sketch of your background please?

Jim Simpson: Well, let's see. I'm from an aerospace background. I'm a third generation. My granddad came from Scotland in 1927 and started in Douglas Aircraft and we've been involved in the business ever since. I retired from Boeing after 35 years and went to join Aerojet Rocketdyne as senior vice president for business development for their business. And then I was fortunate enough to get a phone call to see if I would like to be the CEO of ABS, and here I am.

John Gilroy: It's like going from the offensive side of football to the defensive side of football. Different side of the fence there, huh?

Jim Simpson: Yeah, I've always been on the manufacturing side, and now I'm on the service side. It's a different look, but it did help to obviously have 35 years in satellites and launch vehicles and actually work and interface with the service group all the time and looking and trying to see what their needs were and how we could improve our products so that we could help them go forward. And now I'm on that other side of the equation.

John Gilroy: Yeah and there may be a satellite in the offering for you folks in the next couple years, you're going to be empathized with exactly what the proposed vendors might have to do.

Jim Simpson: Exactly. In fact, our objective here is probably that by the end of the summer, having a satellite defined and going forward with that for a replacement in 116 East.

John Gilroy: Well I did my research before this interview and I went to a website called Satellite Marketing and Research where they talk about this very hyper, competitive market that you're in. And from the perspective of your vast experience here, has that been good for you? Understanding this market condition right now as a major, regional satellite operator?

Jim Simpson: Well it has. In fact the objective is how can the customer be more competitive? And in our case, how do we become more competitive? And a lot of that has to do with making sure that we have the proper economics and actually the proper product in the different areas. Clearly two of the satellites that we have at ABS

were satellites that came from the Boeing Company. Part of the objective there was have two satellites, ABS 3A and the ABS 2A that are all electric. And what that means is that each satellite will last for 25 years. And so from an economics perspective being able to utilize a satellite for that long a period of time allows us to have a little different economics than a satellite that may not last quite as long but be as equally expensive.

That was part of the benefits of some of the things we're looking at there. I think that right now our satellite systems are pretty well suited for what our needs are for our regions that we support. One of the things is that we knew a long time ago that there's going to be the emergence of high throughput satellites. Our next generation will also have some high throughput capabilities but right now to make sure that the High Throughput capabilities do not significantly impact our business, we have a balanced portfolio of Video and Data services. But from a video perspective it doesn't have the same types of benefits. So while we're evolving in the high throughput world, we're focusing and balancing our business with a significant amount of video content. So that's one of the ways that we make sure that we're viable going forward.

The other area is that ABS has always been one of the low cost providers. So as high throughput satellites have been evolving, our price points really have not changed as much as others. And because of that we're able to be competitive in the various areas that we're in. So those types of factors are the things that we're looking at obviously there are other activities that we're focusing on is how do we do a better job partnering with other providers or other manufacturers or others in the service community so that we can actually expose our products to more customers and to improve the utility and the utilization factors of our satellites.

John Gilroy: Boy from the tone of your voice you are bullish. I mean that's the interview from Via Satellite said, "He's bullish in the future for ABS." In fact in the interview you talked about opportunities for direct to home business. It seems to be right in your sweet spot.

Jim Simpson: It is. And it's an area that we're definitely pursuing and we're pursuing it rather rigorously. We're in three different marketplaces. We're right now in Mongolia, Indonesia and also the Philippines. And we're in different states of maturity. The Philippines is the most mature of the three and we're quite excited to say after what we call a hard start now in March, we have over 590 thousand subscribers on the DTH network. So things are progressing quite well in the Philippines. Mongolia is a little bit behind and Indonesia is further behind that but we're excited in all those marketplaces, because our approach to free to air DTH type of activities seems to set well with the region that we're in, because of the multiple islands. For example in Indonesia and the Philippines the satellites are best suited for these type of applications and because of the populous and such,

free to air seems to make much more sense to us than a pay per view, simply from a collection perspective and other factors. So all in all we think that this business is in an incipient phase but we think that in the next three to five years this will be a significant wedge of our business.

John Gilroy: Yeah, half a million people. That's not just incipient that's making a good statement there. Earlier you talked about maybe partnering with service organizations and making sure you're abreast of new potential developments. Any specific company you want to talk about or areas of technology that you're partnering with in this area?

Jim Simpson: Well I say I prefer not to talk about specific potential partners because we're in the middle of negotiations with many of them. But the real issue though is that we want to make sure that we're doing what we do best and can we partner with people that have complimentary capabilities that are able to make us grow. An example is in the managed satellite service business area can we partner with certain managed service providers such that can utilize some of our capacity that requires management. This increases our capacity on our satellites, which obviously improves our revenue stream, but also provides potential economic value to the managed service provider by lower cost capacity. And so we think that this is the classic win-win that allows both of us to grow as we'd like to.

John Gilroy: Boy and after your 30 years of experience in the industry, that's the sweet spot isn't it? When you take [sic] and both parties win and the customers get served and you can increase sales as well. You know in these decades that you've been in the business, you've seen a lot of startups, you've seen a lot of failure and this whole concept is small set, not exactly the newest concept out there. So what important factors, do you think, will take into consideration for some of these newer companies winning and losing?

Jim Simpson: Well see I was part of what I'll call new space 1.0.

John Gilroy: Very trendy.

Jim Simpson: Yeah. And so I'll tell you the lessons that we learned at least looking back on it. And actually there's a lot of parallelism that obviously everybody is recognizing, but one of the key factors is do these new space people have an anchor tenant? Do they have some business that allows them to be able to grow from day one? Cause without that it seems to be very difficult for the new programs to really get off the ground.

The second point that we saw was -do we have appropriate sales channels for these types of new space types of activities? And do they have the proper motivation as far as to be able to grow the business?

The third thing because there's really no technical, well there's some technical advances that have been happening nowadays but a lot of that technology was still there in space 1.0. The issues that were really driving some of this were also the ground infrastructure. Everybody looks up at the sky for the satellites but frankly the ground infrastructure is possibly the most complicated and the most expensive. And there are some activities going on, I think Kymeta is an example of being able to use non-mechanical tracking antennas and things, which could really significantly improve the chances of some of these new space activities, especially the large constellations.

But without that there are still a lot of economic complexities. I know that everybody's appreciating it but frankly it caused some of the downfall of the new space 1.0 and could be an Achilles heel of space 2.0.

John Gilroy: Yeah. I agree that there's a lot of innovation in ground equipment. Now we're based here in Washington D.C. and I keep thinking of regulations. I mean a company like yours pretty much knows their way around some of these regulations. For some of these new organizations that may be a challenge that may delay some of their launches and some of their initiatives because there are a lot of issues there that comes up.

Jim Simpson: Well yes there is. There are a lot of different activities relative to regulatory. There are a lot of negotiations that have to go with adjacent satellite providers in different slots. And you also have to get landing rights in multiple different countries. And all of that is a complexity as well. So these are factors that are not trivial at all, and they could be overcome, but the problem is that they definitely cause delays in going forward.

John Gilroy: Yes it's not stylish and fashionable and won't make a splash page of a website. But it's the blocking and tackling that makes the ground stations work and makes that, in your case, some of the broadcast initiatives work. Your predecessor, a guy named Tom Choi, he's very well known in this industry and he was pretty skeptical about the long term viability of the Leo Mega Constellations. What do you think? Do you agree with him? Or what do you think is going to happen down the road here?

Jim Simpson: Well I would just say that the jury's still out. The current, larger constellations of Leo systems are successful now because unfortunately they went bankrupted before. And you know that's not a great model. It's not that it hasn't been that historically before, but the key is how did they become successful day one? And

there are a lot of different moving pieces as you talked about. The blocking, the tackling, the ability to be able to deploy multiple satellites and being able to have constellations viable day one.

The economics associated with it as well. You start to look at some of the things and some of the things that Tom brings out such as… for the majority of the time a lot of your satellites are not in areas where they're actually even covering places where there are people actually communicating. 70% of the world or more is water and hence that's where your satellites are a majority of the time.

There are also other issues as well but I think that really you've got to have one that's really been successful before you can say that they are really going to make it or not. I have to tell you that I may be a little bit skeptical but I've been proven wrong multiple times and if the right group gets there with the right anchor tenancy, the right distribution channels and they are able to overcome some of the ground infrastructure activities, there's a possibility they could be highly successful.

John Gilroy: You know it's hard to predict what's going to happen five or seven years down the road, but I don't see Leo operators impacting your business. It's almost like you're in different zones, different areas where you're playing completely different and this market is expanding so quickly, so do you think there's going to be competitors down the road?

Jim Simpson: It depends on what markets they're pursuing. Clearly there are going to be factors that are going to be impacting our business. 5G is an example of that. And part of that is, and you talked about it a little bit, some of the regulatory issues that some of the broadband groups are trying to look more and more at potentially taking some of the spectrum from the satellite community and that can negatively impact our ability to be able to do the broadband activities. And ironically, satellites should be a great compliment to a lot of the broadband systems because there are regions in the world that fiber just can't make it in. And the ability of satellites to be able to deploy a lot of content simultaneously which is absolutely key for 5G, is another point that could really help them, as well as that backhaul and other applications that satellites just do a very good job at. Now that's an area that could be a benefit and a threat at the same time.

John Gilroy: Now when I go on Twitter and I do some searches for satellites I see these big splashy pictures of SpaceX and then I go to the real world and read articles about satellites and there's a subheading I wrote down this morning, “Geo Satellites Matter”. They do matter. It's like the backbone of what's going on around the world isn't it?

Jim Simpson: It really is. I mean from a coverage perspective Geo systems are better. As Arthur C. Clarke pointed out probably 70 years ago, it only takes three satellites from geosynchronous orbit to be able to cover the entire globe. And so when you're trying to get global coverage quickly with the fewest amount of satellites, geo stationary systems are there and because of their fixed nature they're more stable, more easily manageable and are better for a lot of different applications.

John Gilroy: So if we got a bunch of traditional satellite operators in a room, we close the doors and have Chatham house rules you know… can't talk about what's going on in there, what would you say the biggest challenges are? Do you think it's this regulatory thing down the road where they'll be taking some bandwidth from you? Or what do you think the biggest challenges are for companies like yours?

Jim Simpson: I think that the biggest challenges we are focusing on is where some of the technology is going, which is great, what's evolving and what's going on. And we'll talk about the high throughput satellite activities. The catch there is for us to really open up and be able to tap into the insatiable requirements of bandwidth that people are starting to see, the price points have to even get lower for satellites. But the catch there is until that growth occurs do you bet to reduce the cost of the dollars per megabits in the satellite world? And so you're starting to see, and I'm probably not making really good sense, but what you're trying to do is in order to tap into the larger amount of bandwidth or the insatiable requirements for capacity, you actually go a price point down. You have to go back into what all the fiber costs.

And the catch there is for satellites to be able to be economical to do that the satellites have to be fully sold out and they have to be fully utilized for all of these petabytes, terabytes that people are talking about. And that growth rate isn't there yet. And so what you're seeing is price points that have definitely dropped but they're not right at the fiber point yet. And so that's probably one of the biggest points right now is where does pricing go and how quickly does pricing reduce?

John Gilroy: I imagine if you're a fancy professor at Georgetown University you say there's elasticity in the marketplace. And what you just described, that's exactly what's going on here. People are trying to figure out what the price points are, where they can be, and there's no rule of thumb for that. HTS is making an impact and it's tough. So when it comes to profitability I think that one of the key points is understanding elasticity in the marketplace and trying to price yourself in the next six to eight months to see where you're going to stand.

Jim Simpson: Well I think you've got to be careful. I wouldn't say it's elastic because there's almost like a step function that has to happen. And so in other words if I reduce

the price from $10 dollars to $9 dollars, I don't see a significant growth in my capacity. If I drop it from $10 dollars to $1 dollar I might.

John Gilroy: Wow. I didn't realize that.

Jim Simpson: The thing that you're looking at is that again you're seeing the price points go down, but the capacity growth or the ability to get additional quantity is not a one to one correlation.

John Gilroy: Wow. All kinds of new technology out there. Everything's out there and I guess every conversation now has got to include some kind of impact of stuff like artificial intelligence, internet of things, cloud computing. I just don't know how to keep up. Is something like artificial intelligence going to impact your business?

Jim Simpson: Well it actually could benefit our business. Again, I was talking about how 5G could be a pro and a con. In 5G, you know we're talking about the internet of things, we're talking about potentially… I believe that the numbers, I know I'm probably going to screw it up, is 20 billion different types of points that will be contacted because of 5G. And what you're starting to see again and again is that the more utilization of bandwidth, the more autonomous systems are, the more you're going to need ubiquitous coverage, and the ultimate ubiquitous coverages are satellites.

And so with artificial intelligence, with all these different aspects, you're going to probably see more of a demand for, not just satellites, but other types of broadband capabilities.

John Gilroy: Yeah. I don't know if you can predict what's going to happen, it's changing. So looking down the road, get your crystal ball out. Five, seven years down the road here, where do you see it evolving to?

Jim Simpson: Well I see that the evolution will be twofold. One is that we'll be looking to see how we can try to play into tapping into the increased demands for broadband and bandwidth. Eventually refreshing our fleet to a certain extent and making sure that it has the high frequent capabilities that allow us to be prepared for the future.

I think you'll see more partnerships in the future. We have 15 slots that are not populated and we'd like to populate some of those slots. Unfortunately we don't have infinity money and so frankly I think we're going to see partnerships between potentially service providers as well as potentially manufacturers, potentially nontraditional partners. But I think you're going to see more partnering in space to be able to see the growth that we want to see.

I think you might be seeing, maybe in the seven year timeframe, the advent of some more laser type of applications. You'll still see the requirements for video, for data messaging and for backhaul. You may also see that there'll be a demand for more, not just provision of bandwidth, but also managed services. And that might be the bigger evolution in the five to seven years.

John Gilroy: Yeah, you can see where there is a —another big fancy word— synergy. There could be a situation where you partner with an organization; all of a sudden you get more competitive than you were in the past and take advantage of some of this new technology like HTS coming up.

Jim Simpson: Exactly. We also need to follow all of the end user equipment and the end user requirements and the customer requirements because the systems become more and more demanding of bandwidth. With that, the demands for ubiquitous coverage again, autonomous systems, we really start to see some of the high throughput maybe more and more utilized, hence getting closer and closer to driving the capacity that is available on some of these satellites.

John Gilroy: Well that's a great interview, Jim. Unfortunately we are running out of time here. I'd like to thank our guest, Jim Simpson, CEO at ABS. If you liked the interview like us on iTunes and subscribe.