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M1 Composites Technology: Making its Mark in Defence

Based in Montreal, M1 Composites Technology provides a wide range of services for advanced composite and sheet metal aircraft structures, for all branches of the Canadian Armed Forces and our NATO allies. As M1 President, Lorenzo Marandola, told CDR's Ottawa Bureau Chief, **James Careless**, in the latest episode of the CDR Radio Podcast, the company is on an astounding growth curve. Here is an abridged version of their conversation, which can be heard in full at www.CanadianDefenceReview.com or wherever you listen to your podcasts.

CDR: *Let's begin with a quick overview of M1 Composites.*

Lorenzo Marandola: M1 started back in 2013 with a staff of about three people. I never thought that we'd be close to over 100 employees now! At the time, we were created to engineer, manufacture and repair race car components.

That eventually turned around into supporting major commercial airlines here in Canada, to be able to do all their repairs for them. Then in 2015, one of my contacts in the United States strongly recommended that I should go to the military side and he got my

interest going in that sector. So that's how I got back into the military side of working on weapon systems.

CDR: *Can you tell us a bit about some of the defence projects M1 has worked on so far?*

Lorenzo Marandola: Well, M1 has worked on the CP-140 and the CC-150. We've also worked on the CT-114. We've worked on the Chinook CH-147 as well and, on the US military side, have worked the A-10 on several projects.

Basically we've been brought in when there are issues that our clients are having and they need to have them resolved quickly. So, we

provide them rapid turnaround time with solutions, parts and repairs when they need them.

CDR: *So, what is your strategy when it comes to the defence sector and what do you offer?*

Lorenzo Marandola: Canada needs a sustainment process that is Canadian and that can take care of its own aircraft. The OEMs are definitely able to provide a lot of that, but Canada does need its own sovereign solution. That's where an SME (small and medium-sized enterprise) like M1 can help on Readiness, Sustainment, and Strengthening.

One of our key points is the Readiness portion. We understand the issues here, not just understanding the repair or the manufacturing of the part.

I also ask my engineers to get interested in what the mission is, what the warfighter is going up against and why your part is important. Someone might say, "you know what? I'm working on aligning your door. It's not that important." Well, if that lining up isn't done right and it means that your door opens while we're in flight, we've got a problem. So, lining up that door right is as important as what the pilot is doing.

In terms of Sustainment, which is in-service support of legacy weapon systems, let's face it, everybody would like to have the latest and greatest, and have a new aircraft. But that's not possible. So what we do is to provide in-service support for legacy weapon systems.

The third point is the Strengthening part, to be able to modernize Canadian weapon systems, to complete their missions and be reliable. Being able to gather data during their usage is also extremely important to see which parts break and how they break, and to figure out the logistics of having the right spares in the right locations.

CDR: *M1 Composites qualifies as a small business even though you've grown quite a lot. What are your challenges as a small business in terms of getting more defence work within Canada, and what is it like*

dealing with the federal government's procurement process?

Lorenzo Marandola: For us, it's important to be able to get into the military market, and to be able to have success here in Canada before being able to sell to foreign countries.

The challenge that we've had on the procurement side is that, unlike the United States, Canada doesn't have a small business office for its defence procurements. Canada basically gives the contracts to primes, and the primes then basically give up to 15% of the work to SMEs. The only thing is, that doesn't always happen. So you're not developing your SME manufacturing here; you're not developing your repairs, and you're not developing your engineering to be able to support that at an SME level. And if we're not giving the work to Canadian SMEs and we're giving it to others, well, I'm sorry to say, but we're doing what they did with the Avro Arrow back in the 1950s all over again.

CDR: *Given your experience, what needs to change in the defence procurement process so that Canada can grow its aviation industry to better support our defence capabilities?*

Lorenzo Marandola: I think what we need to do is have a "small business set aside" where Canadian SMEs are given a fair opportunity to actually do the work. That is how you're going to motivate the young people that are coming out of universities

and schools to start businesses. I believe that we owe it to the next generation to give them an opportunity.

CDR: *Now, is it accurate to say that M1 is on a growth trajectory? And if so, what are your plans for the coming years?*

Lorenzo Marandola: We're definitely on a growth trajectory. When I first started with three employees, I figured we'll get up to 15, 20 employees and stop there, but the work kept coming and the requests kept coming.

The reason for our success?: Ask around, and you will find that M1 employees are passionate about their work. Plus, we are truly inclusive. Colour and religion don't matter to us. We choose the best people based on their skills and motivation, and that is that.

CDR: *Finally, you took M1 to CANSEC 2023 and had a booth on the trade show floor. How did the show go for you?*

Lorenzo Marandola: CANSEC was a big success. I've never seen that parking lot so full! There were over 10,000 attendees there. Our booth was extremely busy and so were many others. And what I'd like to end with is that idea that CANSEC is the platform where Canada can sell to other nations, and Canada has got a lot to offer.

James Careless is CDR's Ottawa Bureau Chief



According to Marandola, Canada's procurement process needs to provide more opportunities for SMEs