By James Careless

WORK-BASED LEARNING CONSORTIUM: A Way to Train Entry-Level Hires Fast

Skilled entry-level employees are in high demand in the MRO sector, and indeed across industry as a whole. But how do you get them up to speed quickly and safely, without spending a fortune on internal training programs?

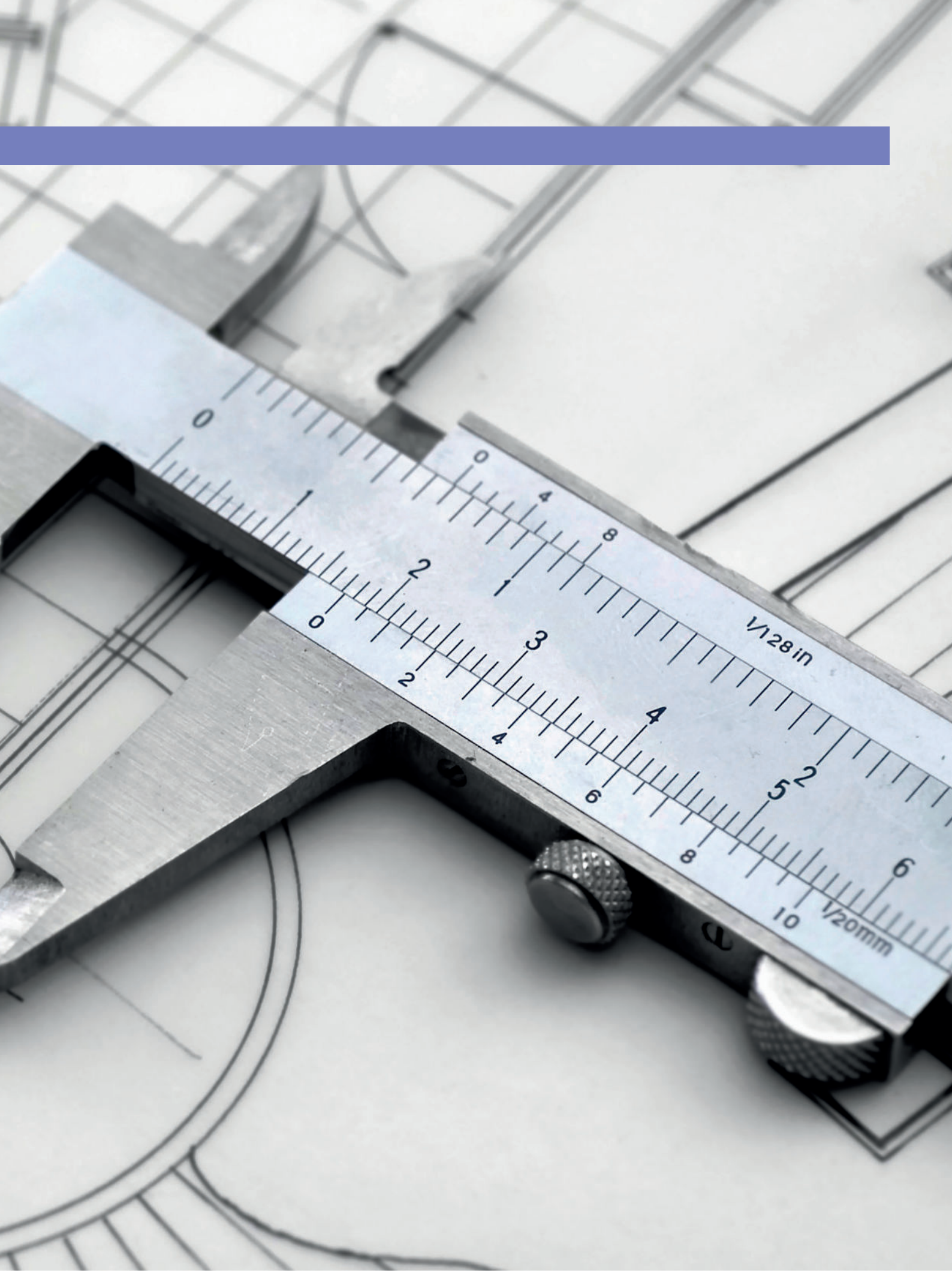
In Canada, they've come up with a solution: Work-Based Learning Consortium. "WBLC works with business and industry firms to help them fill their needs for skilled employees," says the Work-Based Learning Consortium website. "We design, develop, manage, and promote Work-Based Learning programs for entry-level to mid-level skilled jobs." Most importantly, WBLC creates these programs to deliver fast results, so that new hires get up to speed significantly faster than traditional on-the-job best-effort training practices.

Rick Stomphorst is WBLC's employer relations manager. He's the person who works with businesses interested in developing and deploying Work-Based Learning programs. Paul Coleman is a WBLC learning and program development specialist, and has helped develop their Mold Maintenance Technician, CNC Machinist, and other training programs. In this roundtable discussion with Aviation Maintenance magazine, Stomphorst and Coleman explain what WBLC is and how it works, how it can aid the Canadian MRO aerospace market, and how WBLC is ready to work with other countries wanting to set up their own programs.

Aviation Maintenance: What exactly is Work-Based Learning Consortium and what is it all about?

Rick Stomphorst: WBLC is a decade-old nonprofit that specializes in quickly developing on-site learning programs for industry. We have a "secret sauce" that allows us to rapidly identify the technical learning outcomes that industry requires new hires or upskilled existing employees to show proficiency in, and how to transform that into an actual work-based learning program.

We focus on areas that are of significant need of our manufacturing partners; areas where they cannot find the skilled trades to support the businesses that they're in. Our programs are not competing with apprenticeship programs or academia: we create very narrow, rapid upskilling, blended learning programs to solve problems that our customers are having.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Paul Coleman, Learning and Program Development Specialist, WBLC

Rick Stomphorst, Employer Relations Manager, WBLC

Aviation Maintenance: Now when you say rapid upskilling, what do you mean?

Stomphorst: Our rapid learning is not a two- to four-year program, nor are students immersed in it full time or going offsite. Take our CNC Machinist rapid upskilling program: it is a 12-week on-the-job upskilling program that takes the trainees anywhere from one to maybe three hours a week for learning. Some of that time definitely will be on the job. Sometimes the employees will do the e-learning component after hours. Importantly, employees are working while learning.

Aviation Maintenance: So why is WBLC's training approach referred to as "blended learning"?

Stomphorst: We call it blended learning because it's not a single modal training program. The training consists of a bunch of moving parts with e-learning at its core, and we have dovetailed shop floor assignments into the process to reinforce what they've been learning online.

The e-learning part is not just a bunch of slides. It is a very rich environment. It's visual, it's audio, it's 2D and 3D animations, it's video. It's virtual walkthroughs. The training process also has quizzes, tests, and exams. At the end, there's a final practical hands-on assessment.

The example I like to use is we have some very rich learning to show someone how to use a caliper, but at the end of the day, you have to grab a caliper, and you need the onsite instructor at your company to make sure you're using that caliper correctly.

So that's an example of what we do at WBLC. We will have a small e-learning unit on how to use a caliper, how to read it, and then figuratively speaking, you'll walk to the shop floor, you'll grab a caliper, you'll grab a piece of material, and you'll measure it in front of your instructor.

Trainees also meet with our e-learning instructor once a week, and that's Paul. And then we also provide some training for the company's trainer because many technical trainers have never been taught to be effective technical trainers. So, we provide them with a technical trainer effectiveness workshop to make them better overall technical trainers, and that's a skill they'll retain forever.

Aviation Maintenance: Paul, what kinds of skills do you teach to WBLC students on the job?

Paul Coleman: The virtual classes that we have once a week help fill in the "why" of a specific job, as in "Why am I doing this task?" This is something that isn't usually taught in industry because everybody's always super busy and they're just like, "here, do this, do that." And you do it. But you don't get a bigger picture of why you're doing something that you're doing.

I have industry experience, and I spend the time with the students answering questions and telling them about the whys behind what they're doing. A good example is when we're talking about feeds and speeds and machining to a Level 1 trainee. We're not going to teach them how to solve chatter problems because, as a Level 1 machinist, that's not your thing to fix. However, as a machinist, you're sitting at the machine, you hear the chatter, and then you see the surface's finish changing. If you know why it's happening, then you can go and have the right discussion with the right people to get the chatter fixed.

Aviation Maintenance: To be clear, all of this training is being done at the employer's location, and these are entry-level positions that people are being trained on?

Coleman: Yes. So, with a 12-week course where we're upskilling somebody to become a Level 1 CNC machinist, we'll take them to a point of skills that would take up to a year on the shop floor, and we can get them there in 12 weeks.

The e-learning is done on their own devices. Some companies do prefer to give them class time: they'll give them a laptop and say, "Okay, sit down and do it from 10 till noon on Tuesdays." Other people do it at home. It's up to the individuals and the companies how they want to do that.

Classes are typically done during the day and they are virtual, so we connect via Zoom. And it's nice because students get to feel like they're part of a class, not just doing e-learning and meeting with their trainer. They get to meet other people in the industry that are at the same level as them, so it works really well. It gives them a sense of community as well as filling in gaps.

Aviation Maintenance: In terms of how WBLC develops your programs, is it a matter of you sitting down with industry, finding out what they need, and then they fund you and/or the government funds you to develop and then conduct the programs on their premises?

Stomphorst: I'll pick on the CNC Machinist program to answer your question. We received government funding to build this program. We put together a consortium of CNC machinist companies to help

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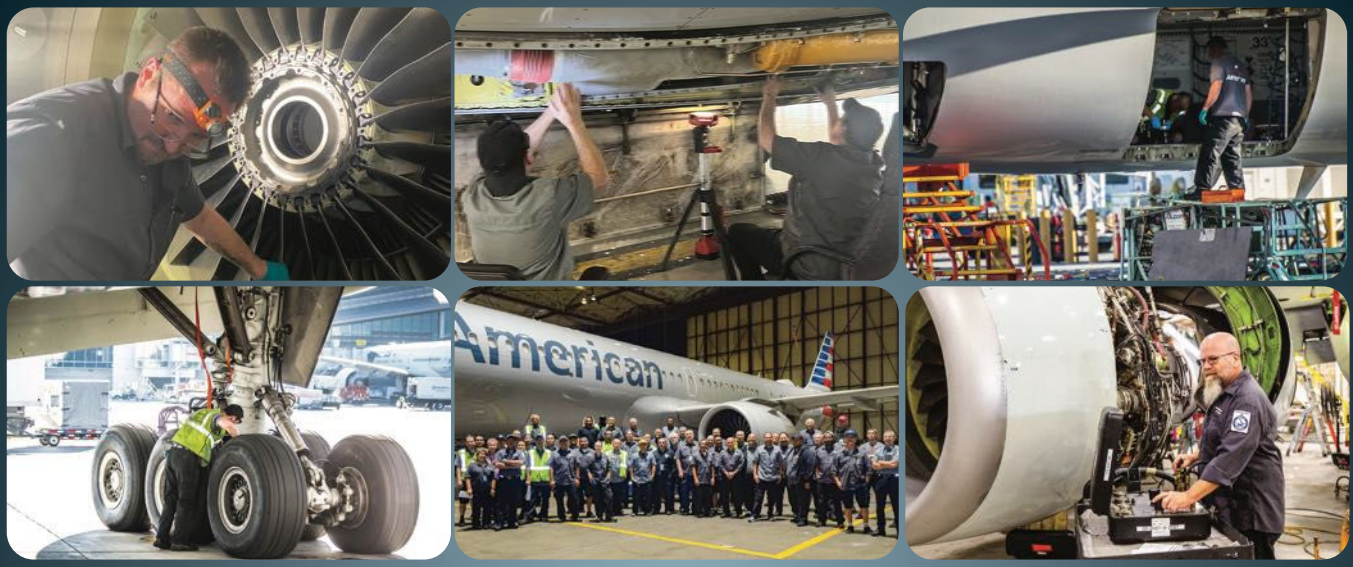

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us; manufacturers, small shops, and so forth. And through a process we extracted from them what the technical learning outcomes are that they require for an employee to show proficiency, so that you — as a group of companies — can say that this person has qualified as a Level 1 CNC machinist. We then used that data to create the training program to meet those requirements.

Aviation Maintenance: Okay. Tell me about WBLC in general. Where did it come from? What was the inspiration for it? How was it funded and why was it seen as something that would help industry?

Stomphorst: WBLC was developed just over 10 years ago because the principals at the time recognized that industry had a need for people to be rapidly trained in highly skilled jobs, and they didn't have the time to put them through a college program or an apprenticeship program. To do this quickly, they simply had to define a very narrow set of requirements.

In Canada, governments on various levels are very big on funding various training endeavors to upscale the Canadian workforce. In our case, we focus on opportunities mostly in the industrial space where we can apply our process to rapidly develop and deploy training programs, usually within a year or so. In this case, we already have the CNC Machinist program developed and we receive funding for it.

Aviation Maintenance: What sort of companies are using WBLC courses in Canada? Are they available across the country?

Stomphorst: We cover all of Canada, Pan-Canadian, because we're virtual. As an example, during the final physical assessment where we're looking over the trainee's shoulder, we developed a telepresence device using off-the-shelf components. We ship that device to the client site at roughly the week 12 point of the course. It's like setting a camera on a tripod; it's no more complex than that. They hit one button, turn it on, and then Paul or one of our other trainers interact with the trainee remotely and watch what they're doing.

Coleman: As for the size of our client companies? Well, when it comes to our CNC Machinist program, I would say mostly medium-sized manufacturers. We have a really broad base where some of them are production shops and others are more of a one-off, like a mold shop or a tool and die where somebody's going to be machining one piece and then moving on to something else.

Aviation Maintenance: What does it take to develop a course with a manufacturer? How do you fund it?

Coleman: It really helps if we have an industry partner, like the Canadian Association of Mold Makers where we can meet with a cross section of their members and the actual job that's in demand. That's because our government funders want to make sure that we're not just speaking out of our hat and that the need is actually out there.

Once we can prove the need is there, we can create the training they're looking for through our in-house development team. Then we work with that industry partner to approach the government for money through different funding channels. If we get approved, then usually they'll give us 18 months or so to develop and deliver the test pilot course. And if the test pilot is good, say we do 10 or 20 people through it, then we can go for funding for delivery.

Aviation Maintenance: Now, what sort of results have you been able to achieve so far? Because, of course, this is a good news-sounding story to the readers, but they're going to want to know what results you are generating to validate the concept.

Stomphorst: We're measuring the trainees going through the program. We routinely find that we're getting more than a 90% success rate; that's somebody who successfully completes the program and stays employed with their employer. And interestingly, in the current funding that we have, one of the requirements is we have to go back to the employer six months after the completion of the program and assess the trainees. There has to be some lift; they've either got a salary increase, they have a new position, and/or new responsibilities.

One thing we haven't mentioned is we've also developed a recruiting selection and assessment process guided by our industrial psychologist. So, if the employer needs someone new, we work with national recruiters to go the first mile to attract candidates. Then they follow our interview process to put the

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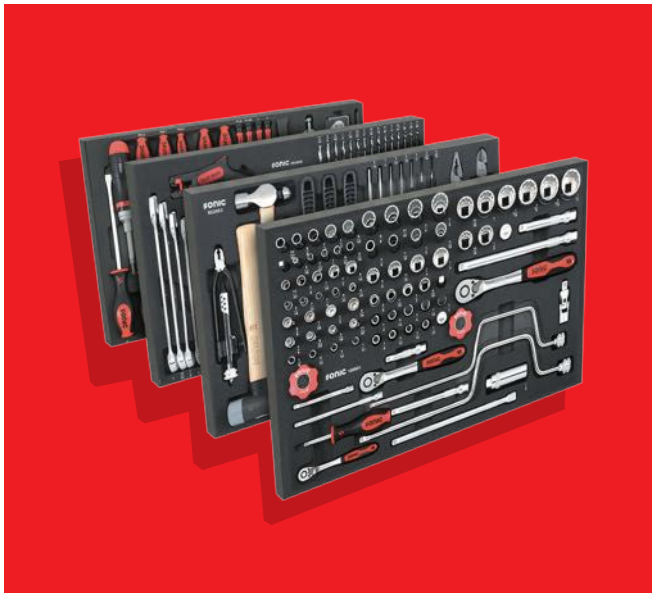

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candidate through an online psychological assessment, resulting in a candidate assessment report that really lays out who this person is for a potential employer. This also sets the stage for our high degree of success. And because of that, we've been able to demonstrate that people who normally would not have been considered for, say, a CNC machinist job, will be successful.

Aviation Maintenance: Do you have any numbers, in terms of people graduated?

Stomphorst: We've successfully put over 750 people through our programs and we've worked with over 80 companies to date. And we're being conservative with those numbers.

Aviation Maintenance: Clearly, you've been able to achieve good results in Canada, where WBLC is based, and what about the rest of the world? Would our readers outside Canada be able to get in touch with you and pick your brains about how they might do the same thing in their countries?

Stomphorst: We'd be happy to speak with them. Yeah, absolutely!

Aviation Maintenance: So where can they reach you?

Stomphorst: Via email: Rick.Stomphorst@workbasedlearning.ca