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The Pulse of the Helicopter Industry

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HAC: The Move to Best Practices

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Gavin Miller has been a Canadian licensed M1 and M2 aircraft maintenance engineer for 25 years. He is currently the manager of Mplan Solutions, which builds maintenance schedule templates and provides implementation assistance to clients around the world who use WinAir maintenance and inventory software. Here, he shares his impressions of Helicopter Association Canada's annual convention and trade show, March 29 to 31 in Vancouver, B.C.

Rather than manning the booth at the HAC convention this year, I went simply as a delegate and I'm glad I did. Being an AME by trade, I had a natural tendency towards the more technical presentations. Instead, I made a point of foregoing them in favor of attending all of the presentations relating to quality assurance, risk assessment, best practices and safety management systems. They were all excellent and gave me a good perspective on what the industry is facing in the coming months and years. There are doubtless still a few folks with their heads in sand — if not outright naysayers — but there is no doubt that SMS is here to stay and I'm all for it.

Merlin Preuss, director general, Civil Aviation, Transport Canada addresses HAC convention attendees at a forum on best practices. Randy Simonneau Photo.

I believe that formally transferring the process of developing, following, and auditing our own “rules” will benefit us all in the end, both in safety and efficiency, and I applaud HAC, HAI (Helicopter Association International) and their members for taking a proactive role. There were several good points made by attendees to the

meetings — and, on reflection, maybe a few that were not. As an interested party with a fair bit of grassroots experience working with operators of all flavors in many countries, I thought I would throw in my two bits.

Twenty-five years ago, I worked for a fine gentleman by the name of David Nowzek (before he was regional director, Transport Canada Civil Aviation, Pacific Region). He has always been a progressive fellow — was always very interested in improving the safety and efficiency of our helicopter and fixed-wing operation. For example, we were probably one of the first companies in the country to get a dedicated dangerous goods course, developed and delivered by Nowzek himself in the early 1980s.

I remember having a discussion with Nowzek one evening (I think he had just spoken at a safety seminar presented in Vancouver by Transport Canada, then the Ministry of Transportation). I theorized that the government didn't need to do it all with regards to standards — that a body of standards could be developed privately, or by industry, with which operators could voluntarily comply. The aim would be remove some of the less appropriate regulatory burden, while at the same time improving safety and efficiency. As this “stamp of approval” became recognized and supported by members and customers as a mark of quality, it would naturally come to be of greater significance. If properly developed and maintained, reputable operators would come to be expected to subscribe, in much the same way that you would not hire “Flybynite Engineering” to design your new hangar if it didn't have properly trained engineers on staff and appropriate industry accreditation. I was young and idealistic, but I think that HAC and HAI now have the opportunity to do something much like that.

The presentation on Monday morning at the convention titled “The Future of Best Practices in the Canadian Helicopter Industry” was delivered by Fred Jones, president and CEO of HAC; David York, vice president for Regulations and International Affairs, HAI; Merlin Preuss, director general, Civil Aviation, Transport Canada; and Tony Cramp, senior advisor, Air Safety and Global Practices, Shell Aviation International. It was a well-attended and lively meeting. The overarching premise was that the members of the HAC have it in their best interest to support the development of industry “best practices” and perhaps a voluntary accreditation program for the same. York described a similar initiative underway at the HAI; Cramp pointed out that the Canadian helicopter safety record is not good and any such move to improve it would be welcomed by the Oil and Gas Producers. He encouraged a review of the framework for best practices developed by the OGP (www.ogp.org.uk/pubs/390.pdf). Preuss, who has presided over the push towards SMS, definitely made it clear that he would also welcome any effort on the part of the industry to develop best practices.

There is no doubt that the development of such a program — and accreditation for it — would come with a cost, although it might be argued that the cost would be lower than if members undertook to develop these programs entirely on their own. Although there can be no “cookie-cutter” template to fit all operators, a well-developed program would take individual sector and operator differences into account. I would argue also that HAC and HAI would be appropriate and viable vehicles for educating customers on the efforts to improve safety in the industry, and the associated costs to the operators. Ultimately, the customer must support the development of any program designed to improve safety. If accreditation for HAC/HAI best practices is offered, then the customer base should be encouraged to use operators who have it.

Three other presentations were relevant to the subject: “Quality Assurance Requirements for Safety Management Systems,” by Dennis and Sol Taboada of DTI Training Consortium; and “Conducting a Risk Assessment: The Practical Challenges” and “Showcasing your Safety Management System, both presented by Jeff Lafortune, president of International Safety Research. These were all particularly interesting because both of these organizations helped with the development and training of Transport Canada staff in SMS assessment. In essence, they told us what TC will be looking for when assessing our SMS systems, and how we might demonstrate effectiveness. To get the straight goods on this, go to: www.tc.gc.ca/CivilAviation/IMSdoc/IMSDocuments/SUR/pdf/sur-001-eng.pdf.

So here it is in a nutshell: in Canada, you will have to implement an SMS system. It will be assessed by TC. You will be required to score at least 3 on a scale from 1 to 5 to meet the requirements of the regulations. If TC is happy with your SMS, then full audits will not be required. In effect, you will be auditing yourself. The credibility of your own oversight will be a significant factor in this assessment. The more that you — and by extension, your association — do proactively to improve this credibility, the better your assessment, your safety, and your efficiency is likely to be. Establishing and following best practices *will* result in on-going changes to the way you operate, as it should. This is not simply documenting your current processes; it is embarking on a path of

constantly questioning and improving them. I speak from experience when I say that this is a cultural shift in many organizations, and that those who make it are glad they did. To quote Albert Einstein: “We can't solve problems by using the same kind of thinking we used when we created them.”

A significant component of SMS is Risk Assessment. Simply put, assessing risk involves determining the probability that something will happen, and the seriousness of the consequences. Obviously if it is likely that something serious will happen, then you better put procedures in place to avoid that something. If an occurrence is likely, but not so serious — or serious but not very likely — then addressing it is less urgent.

Here again, I think that associations like HAC and HAI can help their members to avoid reinventing the wheel on their own. A good percentage of the identifiable hazards will be faced by many operators, although perhaps to varying degrees. A list of hazards is prerequisite to establishing the best practices that might be used to mitigate them. I am a firm believer in the premise that the more heads are involved, the more complete and accurate the list is bound to become. Each operator can then access a “master list” of hazards and best practices for evaluation and incorporation in their own system. The logical extension of this is that the master list is a living thing that constantly undergoes evaluation and revision each time an incident investigation reveals a risk that had not been adequately anticipated and addressed. Those familiar with maintenance programs for large aircraft will recognize this process: the Maintenance Review Board Report forms the basis of your maintenance program, which is then modified as necessary based on the results of the reliability program.

Since the business I am in is largely the development of software to structure and control procedures and processes for aircraft operators, I am particularly interested in QC, QA and risk assessment. I believe best practices are your best defense when it comes to operating safely and profitably. Poor processes, mistakes, incidents and accidents all cost money, or worse.

I have an existing “best practices” document that I give to new clients to help them to develop procedures appropriate to their own maintenance operations. In the coming weeks I will be re-working it to better align with the SMS format. If you have any input to offer in this regard, I welcome it. Please contact me directly at mplansolutions@shaw.ca if you would like a copy.