

ATCA PREVIEW: NAV CANADA – AN ANSP PERSPECTIVE

Of course ATCA is about more than hardware. From a North American ANSP perspective, who better to have a go at answering our questions than John Crichton, President and CEO, NAV CANADA

John Crichton, what's your opinion of the condition of the world ATM industry? And North America specifically?

Everyone in the industry is talking about the right things; about improving safety and efficiency, and increasing interoperability and collaboration, but the pace of change has been slow. Activity has been focused on planning, demonstrations, some development, and infrastructure upgrades.

At NAV CANADA, our method is to develop and implement changes to the system, including ATM changes, incrementally, getting feedback from customers and operational controllers along the way to ensure moderate but significant successes.

To facilitate meaningful uptake, our measured enhancements to the system are implemented in step with airline readiness and equipage. This makes them practical for the airlines to adopt and affordable for the Company to implement. It also allows us to keep pace with the gradual improvements in air traffic, and will position us to be able to respond when we see a stronger comeback.

We are seeing more companies adapting to the current situation by collaborating and combining resources to provide more comprehensive and integrated services. We are currently in partnership with Sensis to install the Integrated Tower Automation Suite or INTAS for Airservices Australia's National Tower Program Technology Project. We also have an agreement with Searidge Technologies which will allow us to leverage our technology and business expertise to continue to provide innovative air traffic control solutions.

Many industries are in shrinkage around the world right now...surely that can't be the case within ATM at a time of such fundamental change...right? Or wrong? Has your business grown in the past 12 months and are you budgeting for growth this year – or are you battening down the hatches?

While there are signs that air traffic numbers are showing gradual improvement, the pace of growth is slower than we would like to see, reflecting the latest trends in the global economy. Like many ANSPs and other companies in the aviation industry, we are taking a rigorous look at our operations to reduce spending and contain costs.

However, we know that we can't stop moving forward. The demand for improved service and enhanced technology is ongoing and it is important to continue to modernize and not fall behind.

In the ATM environment, our focus is to continue our efforts to integrate systems and applications on a common platform. This enhances safety and efficiency by combining flight, surveillance and operational data.

Which of your products are you most excited about right now? What's the biggest difference we'll see in ATM as a result of one of your products?

We are very excited about a number of products and initiatives that are making a significant difference in safety and efficiency for our customers.

INTAS, our integrated tower automation suite, which will be installed in three towers in Australia, with options for the remaining 23 airports, uses EXCDS for paperless flight data processing and coordination and other NAV CANADA technology to combine flight data, operational data, surveillance, and voice communications, while Sensis is contributing connection to their Advanced – Surface Movement Guidance and Control System (A-SMGCS).

The system will provide air traffic controllers with an environment that enhances safety and efficiency, and reduces workload.

We are also beginning to use Multilateration to integrate surveillance with flight data. NAV CANADA has installed MLAT systems at two sites with complex airspace: Fort St. John, and Vancouver Harbour, British Columbia. Controllers now have improved situational awareness, with the promise of an extra layer of safety in areas of difficult terrain or a complex flow of commercial and recreational aircraft, often at low altitudes. We have also initiated a project to use MLAT for surface detection, as a complement to ASDE at Pierre Elliott Trudeau Airport in Montreal.

We continue to extend air traffic surveillance coverage and communication beyond traditional ground-based systems by using Automatic Dependent Surveillance-Broadcast (ADS-B) to provide radar-like information at a much lower cost than radar where improved service and equipage allow benefits to be achieved.

This allows air traffic controllers to separate ADS-B equipped aircraft by five nautical miles, down from the previous standard of 80 nautical miles, in the airspace over Hudson Bay, affecting some 35,000 flights per year. To date, almost 600 aircraft from 20 carriers are certified for ADS-B in Hudson Bay airspace and the company expects 85 per cent of the traffic using this airspace to be certified by the end of 2010.

ADS-B stations are now in operation around Hudson Bay, with expansion proceeding in the Eastern Arctic and Southern Greenland. This will extend surveillance not only over Hudson Bay, but also to parts of North Atlantic airspace, permitting reduced separation, earlier climbs and more direct routings. We are now fully operational coast-to-coast at our 7 centres in domestic surveillance airspace with our 4-D oriented flight data processing system. Improved data timeliness and coordination is apparent.

Who do you see as your customers – ANSPS, airlines, airport authorities, or all of the above? What is special about how you treat your customers?

We view all of these groups as our customers either directly or indirectly. Our mission, and thus our business imperative, is to facilitate the safe movement of aircraft efficiently and cost-effectively. Meeting this mission requires collaboration with a multitude of stakeholders, and it also leads to opportunities in areas such as technology development and deployment.

With all of our customers, we start by listening to their concerns and to understand what their current challenges are and what is their capacity for change. It's important to us to seek solutions that will

meet their needs and their capabilities and result in reductions in cost and improvements in service and capacity.

For example, if we propose to implement something that our customers cannot take advantage of in the near term, then it is not a useful or cost-effective change for either party. Our ultimate mutual goal is to enhance safety, improve services and reduce costs, whether it is through the introduction of new procedures, the installation of new surveillance or by offering enhanced technology.

What, if anything, is preventing you doing more business at present? To follow on from that, what single thing, if any, would you change about the industry that would enable you to do more business?

Certainly the global economy is having an impact on the business we do. Year over year traffic growth has been lower for the first nine months of our fiscal year, and only recently has shown some growth. Like our counterparts, this has meant we have had to rigorously control costs while maintaining safe and efficient services.

We continue to focus on smaller, meaningful projects that will have an immediate effect on service. Our technology development model has been designed to do just that, and it can be seen in the evolution of many of our ATM tools like our Converging Runway Display System or our Scheduling and Sequencing System or our Operational Information Display System.

We are also seeing that some ANSPs are choosing not to incur development costs in their own projects. Instead they are selecting proven systems like our advanced tower, terminal and enroute coordination system, EXCDS which is now operational at the four major London-area airports – Heathrow, Gatwick, Stansted and Luton – plus London City, Aberdeen, Edinburgh and Glasgow airports, as well as at the new tower in Copenhagen.

We hear a lot about Collaboration and Interoperability. How can the industry achieve these goals successfully?

I think the ATM industry is already heading in the right direction. We see more and more examples of ANSPs, airlines, airports, stakeholders and companies gathering to discuss common concerns and to seek solutions that will provide opportunities and improved efficiency and environmental sustainability for the entire aviation sector.

I see airport authorities continuing to work with ANSPs to improve efficiency around their facilities. I see ATM companies entering partnerships to offer more comprehensive services to their customers. I see airlines working with ANSPs to improve not only safety and but also operational efficiency, translating into reduced fuel burn and a more environmentally friendly industry.

An example of this is our recent collaboration with United Airlines (UAL) on two special flights to demonstrate new greener air navigation procedures in the high altitudes of Canadian airspace and over the North Atlantic, and some exciting new demonstration flights planned for the fall period. NAV CANADA Air Traffic Controllers at the Area Control Centres (ACC) in Toronto, Montreal, Moncton and Gander facilitated more flexible routing by protecting a range of altitudes, allowing for greater variations in speed and quicker altitude changes.

This gave pilots and controllers increased opportunities to use more efficient routes thus saving fuel and greenhouse gas emissions. The total savings of the demonstration flights while in Canadian airspace was 900 litres of fuel and two metric tonnes of GHGs.

The demonstration flight occurred in airspace where there is also a unique example of interoperability. NAV CANADA oceanic air traffic controllers in Gander are responsible for the airspace over the Western half of the North Atlantic using a system called GAATS.

If you could go back and change any one decision your company has made in recent years, what would it be?

In 1996, NAV CANADA purchased the Canadian civil air navigation system from our Federal government. With the purchase, came some significant challenges that needed to be addressed in order to put the ANS on track to improve system safety, efficiency and cost-effectiveness. Time was of the essence and decisions needed to be taken quickly.

So, in those first few years, while we transformed the business, we certainly were not perfect. One lesson we learned was the value of continuous collaboration both with our employees and with our customers and stakeholders.

If we had listened a little closer to our employees, we probably would not have tried some of the early organizational initiatives that did not work out in the end. If we had collaborated even more closely with our customers, we might have moved even faster on certain services and technologies, although I am not taking anything away from our track record. I believe that track record, over the past 14 years, speaks for itself. Despite the challenges the company has faced like 9/11 and the recent recession that tested our resilience, we have made solid progress on our original promise.

Which other industry players do you most admire?

I admire everyone in the aviation industry for persevering with passion and imagination during what has been a very difficult decade – with a special mention to our NAV CANADA employees for their dedication and effort.

This is a decade where we saw airlines, airports and other industry stakeholders weather significant economic storms, some more successfully than others. However, they formed partnerships with other industry players; evaluated their operations to find places to cut costs and improve efficiencies and service, and survived using new business models.

This has also been a decade where ANSPs looked inward at their own operations, but also sought to learn and share best practices with their counterparts in order to respond to customer demands and global pressures.

We know now, after these very difficult years that traditional methods of doing business no longer work. We also know that the more innovative and collaborative we can be in our approach to today's more complex environment, the more opportunities there are for success. And the one thing we are is an industry built on innovation and imagination – where the sky is the only limit.