NAV CANADA receives IATA Eagle Award

NAV CANADA is honoured to have received this year's Eagle Award for the Best Air Navigation Service Provider from the International Air Transport Association (IATA), representing the world's international airlines.

The IATA Eagle Awards are presented annually to recognize Airports and Air Navigation Service Providers who provide quality service and value for money to their airline customers. Key criteria for the award include effective customer consultation; transparency in sharing information; reasonable service charges; productivity improvements; and a positive record in safety, environment, operational and social issues.

NAV CANADA was a previous Eagle Award winner in 2001.

SPRING 2010 Volume 5, Issue 2

An integrated approach to oceanic air traffic management

Charged with the responsibility for providing air navigation services in the busiest oceanic air corridor in the world, NAV CANADA is making changes that will improve the safety and efficiency of customer operations over the North Atlantic.

"There's a strong business case for enhancing the services NAV CANADA offers in this busy airspace," says Steve Hunt, General Manager, Gander and Moncton Flight Information Regions. "Almost all of the 1,200 flights transiting the North Atlantic daily will benefit from one or more of the technology and procedure improvements currently under way."

The Company has completed or is making progress on four key initiatives:

- the implementation of ADS-B over the northeast coast of Canada and southern tip of Greenland,
- the integration of Department of National Defence's North Warning System radar data into NAV CANADA air traffic management systems,
- collaboration with ANS partners to implement Reduced Longitudinal Separation (RLong), and
- improvements to the Gander Automated Air Traffic System (GAATS), the cornerstone of the Company's oceanic flight data processing system.

"Customers with the proper equipment can expect to see average fuel consumption for transatlantic operations decline as each initiative comes to fruition," says Hunt.

Automatic Dependant Surveillance-Broadcast (ADS-B)

After the successful launch of ADS-B over Hudson Bay in January 2009, NAV CANADA continued work to expand the availability of the satellite-based system to areas where surveillance was previously unavailable.

The second phase of ADS-B implementation—in the process of being launched this spring—brings surveillance coverage over the northeast coast of Canada.

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Six ground installations located in eastern Nunavut and Labrador, in addition to two PALs sites, will provide surveillance and communications on the coast and reaching over the Atlantic.

"Certified aircraft transiting from Europe now enter surveillance airspace earlier," says Hunt. "And aircraft that use westbound tracks toward destinations in central and western parts of North America will enter surveillance airspace even sooner with the launch of our third phase of ADS-B over Southern Greenland."

ADS-B sensors have been installed in Prins Christian Sund, Frederiksdal, Frederikshab and Simiutuaq Greenland to bring surveillance further into the North Atlantic.

"You start to see a 'surveillance corridor' taking shape over the North Atlantic," says Hunt. "With the reduced separation standards that can be used in surveillance airspace, controllers will be able to provide equipped and certified customers with more access to preferred routes and higher altitudes.

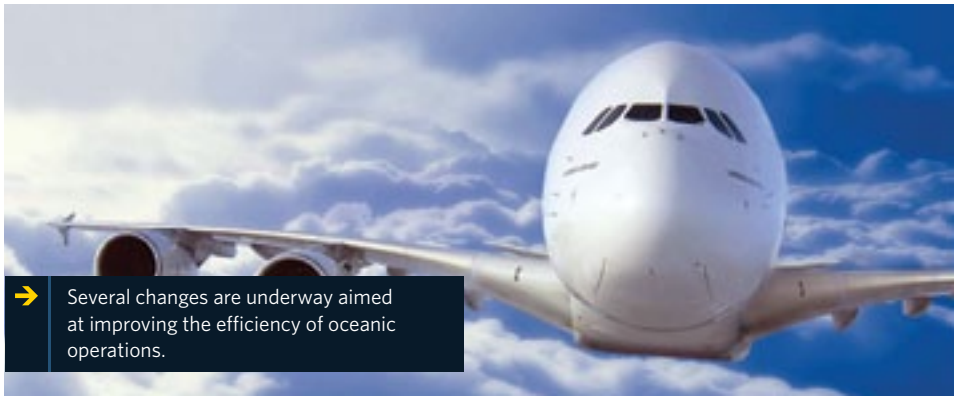
"The potential for fuel savings provides many customers with an incentive to invest in the required avionics—particularly as we move from tactical use to priority handling at higher altitudes."

North Warning System

The Department of National Defence (DND) recently agreed to give NAV CANADA access to the military's North Warning System (NWS).

Integration of the data from NWS radars in Brevoort, Saglek, and Cartwright into NAV CANADA's processors will occur shortly and is expected to provide an additional 40 minutes of surveillance for aircraft not equipped or certified for ADS-B flying westbound over the Atlantic Ocean.

Surveillance in the busy eastern Atlantic expanded using North Warning System radar and ADS-B.



Several changes are underway aimed at improving the efficiency of oceanic operations.

"This is a great example of the Company looking beyond its infrastructure to generate viable solutions," says Hunt. "It's something that just made sense for NAV CANADA and our customers. We are pleased to have had the cooperation from DND on this."

Integration of additional NWS radars located in the north and northwest are being considered for gradual implementation later in 2010 and 2011.

Reduced Longitudinal Separation (RLong)

In January 2009, NAV CANADA reduced the longitudinal separation requirement from 10 minutes to five minutes for GNSS equipped aircraft ascending or descending through intermediate altitudes.

The move towards five minutes of longitudinal separation for ascending or descending aircraft made it easier for controllers to allow pilots to change altitudes during heavy traffic periods. However, once at the desired altitude, aircraft still needed to maintain 10 minutes of longitudinal separation.

"This provided some needed flexibility to move aircraft between altitudes when capacity was available," says Hunt. "The next logical step was to look at safely increasing capacity for those preferred altitudes."

NAV CANADA has been working closely with oceanic partner NATS in the UK to move towards a five minute separation standard for aircraft flying on North Atlantic tracks. Once implemented, equipped aircraft could then maintain five minutes of longitudinal separation for the duration of their flight in procedural airspace.

The companies worked together to define a concept of operations, and identify functional, performance and safety requirements.

Implementation will require leading and following same-direction flights to be equipped with a mix of avionics including GPS, Automatic Dependent Surveillance-Contract (ADS-C) and Controller-Pilot Data Link Communications (CPDLC).

ADS-C will enable more frequent automatic position reports from equipped aircraft to NAV CANADA and NATS flight data processing systems. These systems will calculate the relative position of aircraft.

Controllers can issue the RLong clearances via CPDLC using a standardized set of data-link messages, including climb/descent instructions.

"With more than half of the aircraft operating in this airspace already equipped with the necessary avionics—and that number continues to rise—we expect to see benefits early on," says Hunt.

With implementation scheduled this calendar year, NAV CANADA and NATS are currently working on ensuring that procedures and systems meet the requirements to safely support more efficient spacing of aircraft.

GAATS+

To support these and future initiatives, NAV CANADA has been working on a significant upgrade to the Gander Automated Air Traffic System (GAATS).

"This system enables many of the service improvements being implemented over the Atlantic," says Hunt. "The new release, known as GAATS+, builds on the improvements we developed for the Shanwick Automated Air Traffic System."

According to Hunt, GAATS+ will help the Company phase in improved conflict detection, more frequent separation updates and contingencies in case of loss of GNSS integrity—all essential to the viability of RLong.

New consoles will be configured for controllers responsible for oceanic sectors. With the introduction of GAATS+, we are eliminating the need for paper strips.

The system will also support increased inter-unit coordination and the introduction of features designed to assist the controller with planning and controlling activities.

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"It means that controllers can spend more time focused on the task of keeping aircraft separated," says Hunt.

Getting the most out of efficiency initiatives

"Many customers already have the equipment necessary to benefit from ADS-B and RLong," says Hunt. "And most newer aircraft come with the necessary avionics and communications technology already installed—so it becomes a question of certification."

The Company estimates that customers will save more than $80 million in fuel costs and realize an associated reduction in greenhouse gas emissions as a result of these oceanic efficiency initiatives between 2010 and 2016.

Hunt says that airline companies need to weigh potential fuel efficiencies against the cost of equipping. "Each initiative has the potential to help certified customers realize meaningful efficiency gains.

"As more demand is placed on preferred routes and altitudes, access will be provided on a priority basis to those that are equipped to allow as many aircraft as safely possible to fly the most efficient profiles."

This type of prioritization was introduced over Hudson Bay in May 2009, after allowing some time for carriers to equip and certify for ADS-B.

"It's an exciting time for all of us at the Gander Area Control Centre. It is gratifying to be a part of several ground-breaking initiatives that are driving efficiency," says Hunt. "These initiatives reflect our commitment to continuously improving the services we deliver to our customers."

President's POV

John Crichton, President and CEO, NAV CANADA

With traffic volumes starting to show signs of improvement in early April, the industry faced another setback when airspace closures in the later half of the month due to volcanic ash devastated international traffic.

While there were no airspace closures in Canadian domestic airspace or oceanic airspace delegated to Canada, NAV CANADA saw a reduction in oceanic traffic volumes due to the closures in Europe.

Since NAV CANADA assumed the leadership of the ANS in 1996, we have come to expect the unexpected. And in doing so, we have learned that it is not what happens to you, but how you respond, that makes all the difference.

This lesson applies whether it's meeting the challenge of the 2010 Winter Olympics, deploying a new national air traffic management system, pushing the frontiers of surveillance technology in Canada's North, or pulling together to reduce costs while continuing to enhance safety.

It has been a challenging year for aviation. But after 40 years in the industry, I think I can safely say that no year is without its challenges, and rewards.

This isn't an industry for the weak of purpose or those afraid of a challenge. It is an industry for those who see challenges as an opportunity to find out what you are made of.

That is why we titled this year's annual report, *Innovating in Adversity*. Because tough times don't call for keeping your head down, they call for a redoubling of efforts, and a prioritization of goals to focus on the things that can really make a difference.

This edition of *Direct Route* focuses on some of those things we are doing to make a difference in safety, efficiency and customer service. I hope you enjoy it.

The shift to Performance-Based Navigation

A little over a year ago, a declaration calling for the rapid implementation of Performance-Based Navigation (PBN) was signed by major international aviation stakeholders. The Civil Air Navigation Services Organisation which represents air navigation service providers around the world, including NAV CANADA, was a signatory.

PBN, in its simplified form, means that aircraft RNAV system performance requirements are defined in terms of the accuracy, integrity, availability, continuity and functionality needed for proposed operations.

In the future, Area Navigation (RNAV) and Required Navigation Performance (RNP) applications will identify navigation requirements through the use of navigation performance specifications, rather than through the definition of navigation sensors.

An RNP navigation specification is one that includes a requirement for on-board aircraft navigation performance monitoring and alerting, whereas an RNAV specification does not demand the on-board requirement.

The flexibility of point-to-point operations available with PBN has the potential of increasing efficiency in all phases of flight.

This is not to say that in future, all ground-based NAVAIDS will disappear. However, the NAVAID system will undoubtedly change and may require less ground-based NAVAIDs.

The advent of PBN, combined with new communication, surveillance and air traffic management technologies, allows us to change the way we view airspace and will help NAV CANADA increase safety, capacity and access and provide for a more efficient aircraft operation in terms of fuel burn, reduced emissions and noise.

Implementation Strategy

NAV CANADA is in the process of developing its PBN implementation strategy. A cross functional project team was used to produce a Concept of Operations which was approved by the Air Transport Operations Consultation Committee in late 2009.

It is anticipated that implementation will be done in phases to enable aircraft operators to equip in accordance with the navigation specifications of the airspace in which they intend to fly.

Presently, RNAV Standard Terminal Arrivals (STARs) and Standard Instrument Departures (SIDs) are being developed using existing

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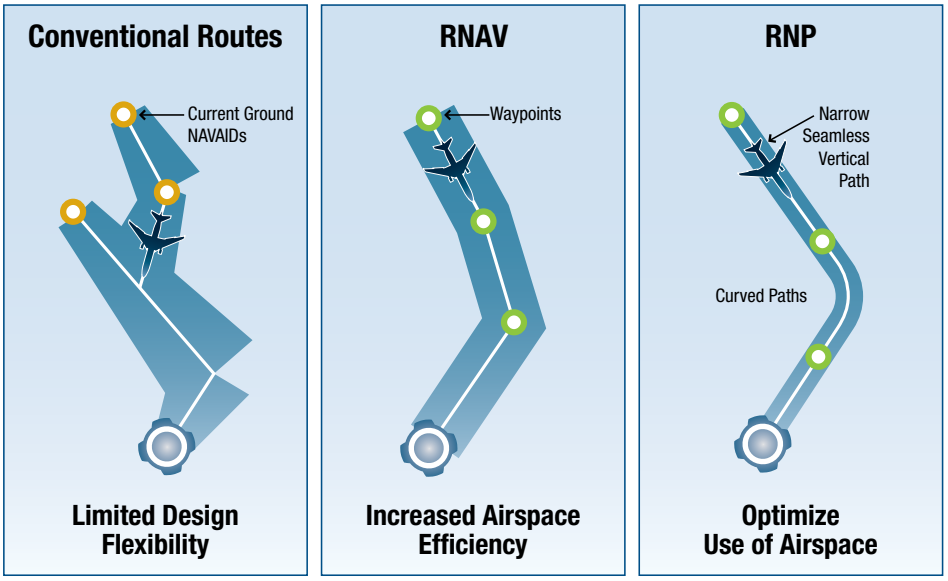
design criteria but with an eye towards the future so that they can easily be transitioned for use under a PBN framework. This will reduce workload later on when new design criteria and navigation specifications are implemented.

As we move forward, implementation and prioritization decisions will be based on business case values and will occur in a way that will be transparent to customers.

The amount of change that will occur over a number of years to implement PBN strategies is significant. Close coordination between air navigation service providers, customers and regulators is essential to managing the pace of change in a way that makes the best use of resources and technology to deliver as many benefits as possible.



"No one can whistle a symphony" Collaboration: an essential element of an effective ANS

Employees at NAV CANADA's National Operations Centre

It was Halford E. Luccock, a preacher and professor at Yale University who once said, "No one can whistle a symphony." How true. Great things almost always require collaboration.

The operation of the world's second largest air navigation service is a case in point. In running the system, NAV CANADA collaborates actively with a range of stakeholders on day-to-day operation as well as on medium and long term planning.

Stakeholders include not only customers, employees, airports and neighbouring ANS providers, but also aircraft manufacturers, regulators and suppliers.

Tactical collaboration

Since its creation in 2004, the NAV CANADA National Operations Centre (NOC) has functioned as the central communications hub for tactical collaboration between Operations and our stakeholders.

Whether it is how to manage a reduction in capacity due to a snowstorm, or planning the day's oceanic tracks, one of the essential elements of collaboration is information sharing so that everyone is approaching the problem from the same base of information.

To achieve that, the NOC leads or participates in more than 15 daily regional, national and international teleconferences which shape the way the day unfolds for our customers, operational units and partners in the provision of air navigation services.

For example, conference calls are held every two hours with the FAA command centre. "Because of the amount of traffic that goes back-and forth between our two countries, it's important that our two systems be tied at the hip," says Dave Rose, Manager, National Operations Centre.

There is also a teleconference with Eurocontrol's Central Flow Management Unit every morning to discuss what our customers can expect upon arrival in Europe and with NATS (U.K.) in the afternoon to discuss the evening's eastbound transatlantic flow. Polar traffic is coordinated with centres in Anchorage, Alaska and Reykjavik, Iceland.

Carrier dispatchers can also tune into detailed weather briefings for an understanding of how the weather will impact daily air traffic operations across Canada. The briefings, managed by Aviation Weather Specialist Arlene Harrold, are provided at least three times a day.

In addition to the conference calls—the NOC's primary means of coordination—a suite of web tools is available, which provide forecasts on a daily basis of the volume of traffic that's going to be on each of the Atlantic or northern tracks, as well as the number of flights that will be going over each of the polar fixes.

Another web tool, the Airport Performance Monitor, provides real time performance measurement data such as the number of aircraft arrivals and departures achieved per hour for selected airports.

This type of shared situational awareness is essential to collaborative decision making. Says Rose: "When there is a situation that

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needs to be proactively managed, we use a collaborative approach to traffic management aimed at minimizing added flight time due to congestion, weather or other situations. Having the full picture, customers can better make their own dispatch decisions as well."

Developing longer range plans

Collaboration isn't just essential in the daily tactical decision making, but also in developing plans for capital investments, changes in procedures and other adjustments to services.

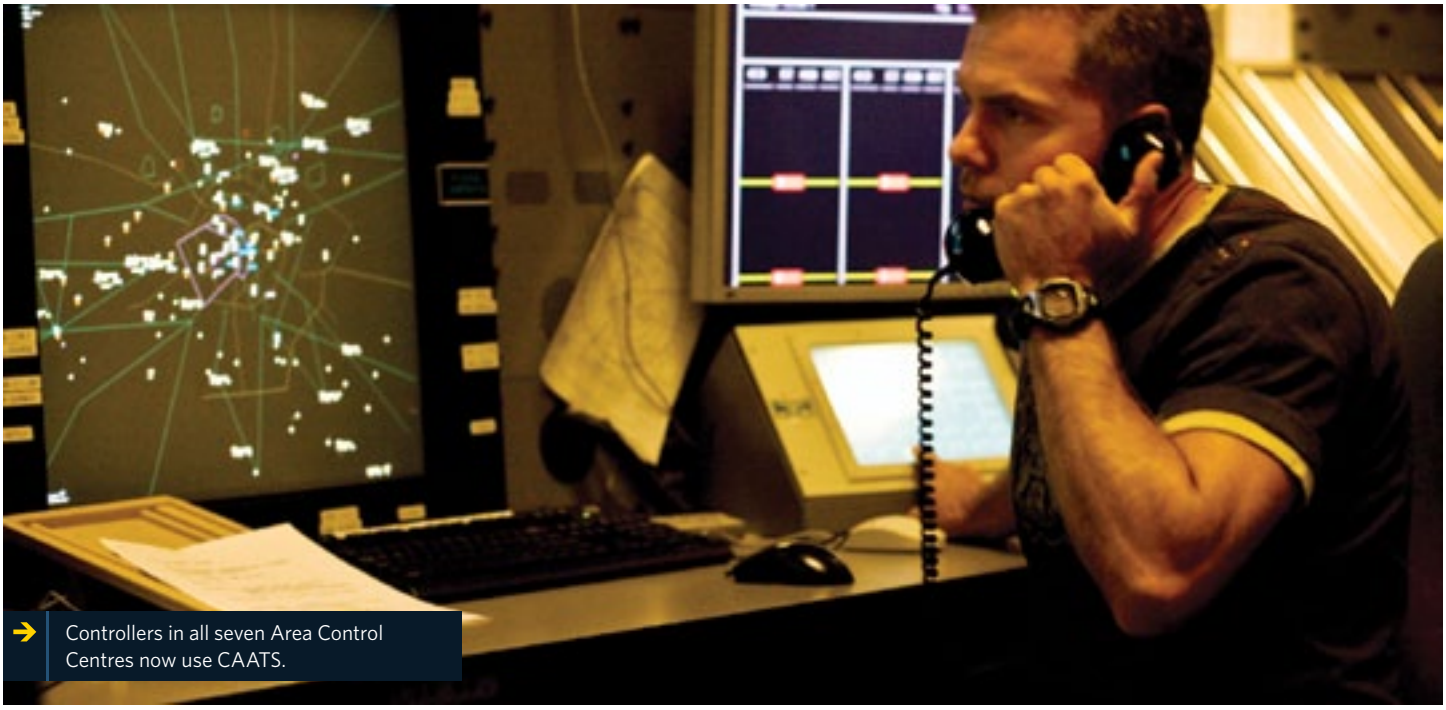
"This is particularly important when so many emerging technologies depend not only on the right systems being implemented on the ground, or in the ATS facility, but also in the aircraft," said Rudy Kellar, Vice President, Operations.

NAV CANADA uses many formal and informal means for collaboration with customers and other stakeholders.

The NAV CANADA Advisory Committee was established to advise and make recommendations directly to the company's Board of Directors. The Air Transport Operations Consultative Committee (ATOCC) provides a forum for NAV CANADA and its major customers to coordinate plans and activities while the Air Navigation Services National Advisory Committee (ANSNAC) provides a broader membership with the opportunity to focus on current issues and future planning.

In addition to these longstanding forums, there is an ever growing number of multi-disciplinary working groups involved with specific issues, direct consultations on projects, and/or the development of emerging Concepts of Operation.

CAATS goes national



Controllers in all seven Area Control Centres now use CAATS.

Over the past six months, NAV CANADA Engineering, Technical Operations, and Operations staff quietly marked a major milestone in the Company's modernization program.

The milestone involves the extensive work—now in its final phase—on implementing the Canadian Automated Air Traffic System (CAATS), from coast to coast.

CAATS is the backbone of NAV CANADA's air traffic management system. CAATS—an integrated flight data processing system which automates flight profile monitoring and extends conflict prediction and detection into non-radar airspace. It also processes and distributes flight data information to other NAV CANADA and international systems.

With the commissioning of the system in the Edmonton Area Control Centre's southern domestic airspace in late 2009, CAATS is now operational in all seven of NAV CANADA's ACCs.

"This commissioning means that, for the first time, CAATS is ACC-to-ACC across the country, and able to automatically transfer flight data from one ACC to the next," says Kim Troutman, Vice President, Engineering.

Split implementation of southern and northern airspace

With its vast northern airspace, where aircraft often fly for four or five hours at a time without radar coverage, control staff responsible for Edmonton's northern sectors rely on Conflict Prediction functionality to ensure that both the correct separation standards and customer service levels are maintained.

Significant development and testing is required before Conflict Prediction can be operational within CAATS, so it was decided that a split implementation of CAATS in the Edmonton ACC's southern and northern specialties was the best way to go.

"Focusing on implementing CAATS in Edmonton's southern airspace first allowed us to reduce the amount of change on day-to-day operations," explains Dave Lewis, General Manager, Edmonton Flight Information Region.

This allowed the Company to focus on delivering incremental enhancements to ease workload issues.

Five out of eight specialties were included in the first phase of the Edmonton CAATS deployment. These specialties now enjoy the benefits of CAATS automation and ACC-to-ACC connectivity with Vancouver to the west and Winnipeg to the east.

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Automated procedures reduce communications and improve safety

Now that CAATS has automated the flight data interfaces between Edmonton's southern specialties, the Vancouver and Winnipeg ACCs and Salt Lake and Seattle centres, this has contributed to a reduction in communications.

"That leaves controllers with more time to focus on airspace management versus handing off information," says Lewis. "And several new functionalities are adding more layers of security and better situational awareness."

One of these new functionalities allows controllers to easily update flight profiles with the altitude at which the plane is actually flying. The system then uses the nominal climb or descent rate for that aircraft type to automatically update the expected flight profile.

Another new functionality—Missed Approach Handling—is resulting in fewer workarounds for controllers. And adaptable, on-screen Flight Data Lists, a functionality first introduced at the Toronto ACC, is also freeing up controller time.

Finally, enhancements to Overdue IFR Arrival or Departure Alerting functions will make it easier to identify the type of alert and prioritize handling.

What's next?

Once the software development of Conflict Prediction and other functionality has been completed, CAATS will be implemented in Edmonton northern sectors and several legacy systems will be decommissioned.

"The transition to a single advanced system means better integration of data and will result in safer operations and better service for customers," says Troutman. "It's the final piece of the puzzle that will tie everything together."

NAV CANADA and Sensis win environment award

Presentation of the Jane's Environment Award. **From left:** Janine Boxall (Jane's); John Crichton, President and CEO, NAV CANADA; John Jarrell, Vice President and General Manager of Sensis Air Traffic Systems; and Jenny Beechener (Jane's).

NAV CANADA's deployment of Automatic Dependent Surveillance Broadcast (ADS-B) technology over Hudson Bay was named winner of the Environment Award at the 2010 ATC Global Exhibition and Conference held in March in Amsterdam, Netherlands.

The technology, consisting of five ground installations around the Hudson Bay shoreline, was developed and supplied by Sensis.

Presented by Jane's Airport Review, this is a new ATC Global Award that recognizes 'green' air traffic management concepts and the aviation industry's contribution to reducing environmental emissions. It is one of six award categories recognizing industry achievements over the last year.

With ADS-B coverage in the airspace over Hudson Bay, NAV CANADA estimates that between 2009 and 2016, airlines will save $195 million in fuel and reduce greenhouse gas emissions by 547,000 metric tons.

"I am honoured to accept this award on behalf of the NAV CANADA employees who did the pioneering work on this exciting deployment of ADS-B in Canada's North" said John Crichton, President & CEO. "And their work continues, with further deployments that will deliver even greater benefits for our customers and for the environment."

"This award honors a landmark system that is improving safety in high traffic airspace while simultaneously delivering tangible and measurable benefits to the environment," said John Jarrell, Vice President and General Manager of Sensis Air Traffic Systems.

"In addition, NAV CANADA is helping their airline customers cut fuel costs and improve the flying public's experience through more efficient and predictable flight routes. We are honoured to share this inaugural award with NAV CANADA."

The award categories are designed to reward new developments as well as collaborative ventures. Winners are selected by a panel of senior representatives from the Federal Aviation Administration, EUROCONTROL, IATA, CANSO, Jane's Information Group and ICAO.

NAV CANADA technology extending its global reach

NAV CANADA technology continues to find a home in the global Air Navigation System.

Airservices Australia recently announced that technology provided jointly by NAV CANADA and Sensis Corporation will go operational at three of its air traffic control towers as part of the Australian ANS provider's National Tower Program.

NAV CANADA will work with Sensis in the design and delivery of an integrated air traffic control solution that provides controllers with immediate access to flight data and voice communications and monitors the airfield and surrounding airspace.

The Integrated Tower Automation Suite (INTAS) features an integrated controller working position with up to four touch-screen monitors. The system will include the following NAV CANADA technology:

- Extended Computer Display System (EXCDS) for 'paperless' flight-data coordination between the tower and terminal;
- Operational Information Display System (OIDS) to monitor and control airfield ground lighting, monitor navigational aids, and weather data;
- a Digital-Automatic Terminal Information Service (D-ATIS); and
- terminal surveillance displays.

Sensis will leverage its expertise as an Advanced—Surface Movement Guidance and Control System (A-SMGCS) provider and integrator, and will serve as the prime contractor responsible for engineering authority, project management, installation and support organization.

SolaCom Technologies will deliver a fully digital voice communications subsystem, which will be incorporated directly into the INTAS flight information management system for air-ground/ground-ground communications.

With EXCDS technology, controllers use touch-sensitive computer screens to monitor aircraft and manage air-traffic flow, eliminating the need for traditional paper flight strips. It is currently used at more than 70 sites across Canada, including control towers, Area Control Centres and Flight Service Stations.

"We are pleased that more of our colleagues around the world recognize the proven and reliable capabilities of this technology," said John Crichton, NAV CANADA President and CEO. "New deployments demonstrate the flexibility of our solutions which are adaptable to a wide range of local operational environments."

The Sensis/NAV CANADA team will initially install this system at three airports—Melbourne, Adelaide and Rockhampton—and at Airservices Australia's Melbourne Air Traffic Centre and Learning Academy. The partnership with Sensis is the latest example of how ANS providers around the world are using and adapting NAV CANADA technology to improve air traffic efficiency.

In the latest deployment by NATS, the control tower at London City Airport in the UK has gone operational with EXCDS, joining four other London area airports that use the technology: Standsted, Gatwick, Luton and Heathrow.

NATS is also implementing the EXCDS technology at three of Scotland's busiest control towers: Aberdeen, Glasgow and Edinburgh.

As well, Danish ANS provider Naviair is using the system at its new control tower in Copenhagen. Naviair selected NAV CANADA technology as part of its modernization program aimed at increasing airspace capacity over Denmark.

NAV CANADA is also partnering with Northrop Grumman Corporation on adaptations of the technology for the U.S. market. Northrop Grumman recently announced the electronic flight strip management system has been adapted for the U.S. Air Force.

The Real-Time Electronic Flight Data System (REFS)—as the Northrop Grumman version of the system is known—has been interfaced with the NAS operated by the Federal Aviation Administration (FAA) and is being used at Sheppard Air Force Base in Wichita Falls, Texas.

An air traffic controller at Stansted airport uses NAV CANADA EXCDS technology.

Behind the scenes—VFR transborder flight plans

Editors Note: This article was originally prepared by NAV CANADA for COPA Flight News. We have reproduced it here for those customers and readers who have an interest in general and recreational aviation.

Everyday, NAV CANADA and Lockheed Martin, the company that provides flight information services in the US, work together, exchanging your flight plan messages to provide service for transborder VFR flights. These activities are designed to provide a transborder flight planning service which ensures that Alerting Service and Search and Rescue (SAR) activities are provided effectively.

Both companies have undergone significant changes in the last six years. In 2004, NAV CANADA completed the transfer of pre-flight, flight planning and en route services from individual Flight Service Stations (FSS) to Flight Information Centres (FIC).

Meanwhile in the United States, Lockheed Martin assumed responsibility for providing flight services in fall 2005. Operations in both countries are overseen by government agencies, Transport Canada and the FAA, to ensure safety and service requirements are met.

Exchange of VFR transborder messages

Since these changes took effect, both companies have made significant upgrades in technology, implementing new systems to handle the processing of VFR flight plans. The new systems, NAV CANADA's FSS Information Management System (FIMS) and Lockheed Martin's FS21 flight planning and weather system, must be able to reliably exchange messages over the international AFTN/NADIN network.

This message exchange is not without its challenges. For example, the flight plan formats used by the two countries differ. In the US, a domestic VFR flight plan format is used, while in Canada an ICAO format is used. Similarly, both systems must send messages to the facility that will be assuming responsibility for the flight in the other country.

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When an activated flight plan is exchanged, the type of flight (VFR), aircraft identification and type, departure point, destination and estimated time of arrival (ETA) are sent. The receiving facility returns an acceptance message, which transfers Alerting Service to that facility.

NAV CANADA and Lockheed Martin have worked together to maintain up-to-date message exchange protocols and aerodrome location information. This ensures that messages are sent and received by the facility responsible for VFR Alerting Service.

Providing VFR alerting service means that a particular flight is monitored and in the event that a pilot does not close a flight plan, a communication search and SAR will be activated as required.

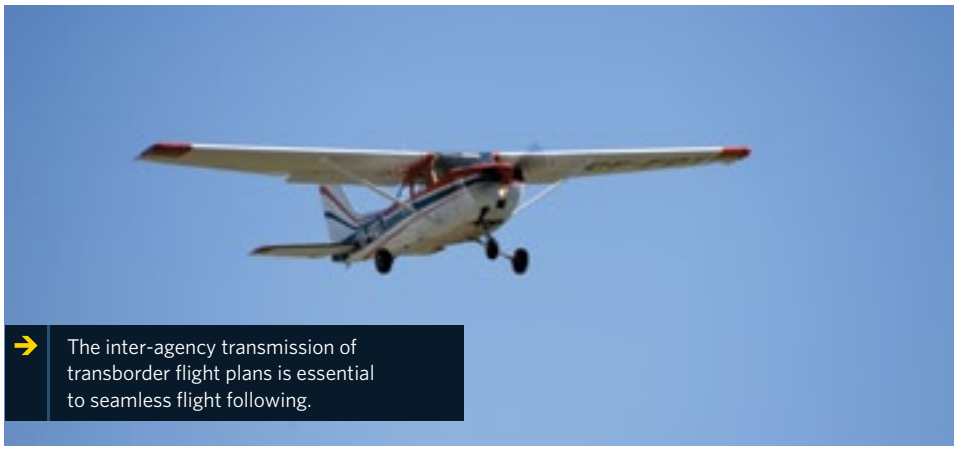
The companies continuously work together to ensure the integrity of flight safety messages is maintained. When system changes are made, system-to-system testing is completed.

Communication search and SAR activities

The exchange of flight plan information is particularly important when Alerting Services and Search and Rescue (SAR) are required. When SAR activities are required, the complete flight plan information is provided to the responsible facility providing Alerting Services.

This includes all information contained in the flight plan, such as aircraft colors, fuel on board, pilot's name, and contact information. Additionally, information on radio contacts or position reports is exchanged.

Each company is responsible for completing a communications search along the route of flight before notifying their respective SAR agency. An efficient communication search usually leads to contacting the pilot before notifying the SAR agency. The process of exchanging flight plan information ensures that the most complete communication search and SAR activities can be completed in both countries.



The inter-agency transmission of transborder flight plans is essential to seamless flight following.

The provision of Alerting Services and SAR is dependent upon having an active VFR flight plan and pilots should be aware that the process for activating VFR flight plans differs between Canada and the US.

In Canada, a VFR flight plan is automatically activated at the proposed departure time. Additionally, control towers and FSS providing airport advisory service will forward the actual departure time to the FIC or request the pilot contact the FIC on an en route frequency. The FIC will then update the flight plan based on this information.

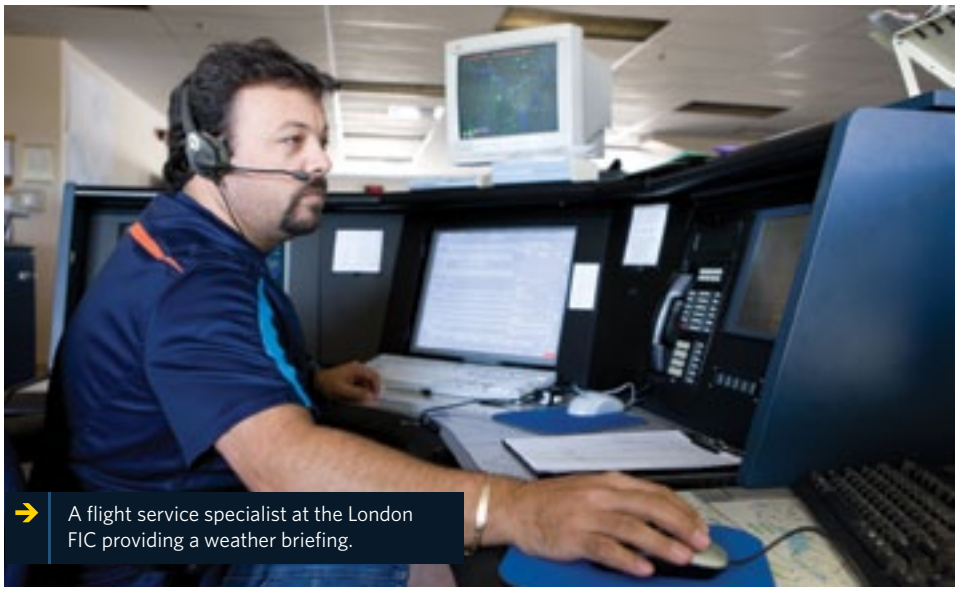
When departing from the US, pilots **must** contact the FSS using an en route frequency to activate their VFR flight plan. Control towers and IFR units in the US **do not** forward departure times to Lockheed Martin FSS for the activation of VFR flight plans.

Please note: when a VFR flight plan is not activated correctly, Alerting Service is **not** provided and SAR activities cannot be activated if your flight goes overdue.

Both NAV CANADA and Lockheed Martin encourage pilots to ask the Specialist about VFR flight plan activation procedures when filing your flight plan. The Canadian and USA AIMs contain complete information on transborder VFR flight planning.

In the event that a pilot calls to close a flight plan that had not been activated, an investigation is conducted and the findings are exchanged between NAV CANADA and Lockheed Martin. By sharing information, both companies have been able to identify problem areas and amend procedures to provide a better service.

NAV CANADA and Lockheed Martin are working together to provide efficient service and help ensure the safety of flight. Pilots can help by being aware of the differences in flight planning procedures when travelling between the US and Canada. If in doubt, ask the Flight Service Specialist when you get your briefing!



A flight service specialist at the London FIC providing a weather briefing.

Direct Route is a NAV CANADA publication for customers and others interested in current and future initiatives by Canada's Air Navigation Services Provider.

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