



WE ARE NAV CANADA

2017 CORPORATE SOCIAL RESPONSIBILITY REPORT

Serving a world in motion
navcanada.ca




NAV CANADA is a private, not-for-profit company, established in 1996, providing air traffic control, airport advisory and aeronautical information services, and weather briefings for more than 18 million square kilometres of Canadian domestic and international airspace. The Company is internationally recognized for its safety record, and innovative technology used by ANSPs worldwide.

2017 CORPORATE SOCIAL RESPONSIBILITY REPORT TABLE OF CONTENTS

Message from the President and CEO	2
Safety	4
Environmental Stewardship	14
Economic Impact	28
People	36
Governance	48
Our Vision, Mission and Objectives	50

Note: NAV CANADA's fiscal year runs from September 1 to August 31. In this report, 2017 indicates the fiscal year running from September 1, 2016 to August 31, 2017.



Will Burgess,
Air Traffic
Controller at
the Buttonville,
Ontario, Control
Tower.

NAV CANADA AT A GLANCE

**40,000
customers**

(airlines, air cargo operators, air charter operators, air taxis, business and general aviation, helicopter operators)



**18 MILLION KM²
of airspace**



**\$2 BILLION
invested**
in infrastructure and
technology since 1996



**3.3 MILLION
flights annually**



114 staffed sites



**4,850
employees**
across the country



MESSAGE FROM THE PRESIDENT AND CEO

I am pleased to introduce NAV CANADA's first Corporate Social Responsibility Report. This report serves as a fitting successor to the series of CIFER¹ reports that we published from 2009 to 2016, describing our efforts to help the aviation industry reduce its environmental footprint.

Just as CIFER complemented and expanded on our annual report, this report builds on CIFER's focus on operational efficiency to cover other important aspects of corporate responsibility.

Why a Corporate Social Responsibility Report? Our focus on operational efficiency has not wavered, but we recognize that NAV CANADA, as a private company with a unique public

trust, has a variety of stakeholders with different expectations.

For example, all Canadians and everyone travelling in our airspace expect air travel to be safe and efficient. Our aviation customers expect that we will provide the services to support their businesses in a cost-effective manner.

The communities where we operate expect that we will

help moderate the impact of air operations on people and the environment and be responsible corporate citizens. Our employees expect that we will provide the tools and working environment they need to do their best and have fulfilling careers. We understand the impact that our services can have. We take that responsibility seriously and work to deliver value to all these stakeholders.

As a business dedicated to delivering a public benefit – aviation safety – we hold ourselves to high standards of responsibility and ethical conduct. Concern for others is core to who we are.

¹ Collaborative Initiatives for Emissions Reductions.

Working from that basic orientation, we have learned that adhering to the highest standard of honesty, integrity and ethical conduct is not only desirable – it is essential to a company in the business of ensuring safety. This commitment is reflected in our vision and values, as well as in all of our dealings with stakeholders.

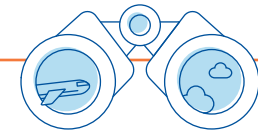
This report expands well beyond CIFER’s focus on reducing greenhouse gases to capture and quantify actions undertaken by the Company in four areas: safety, environmental stewardship, economic impact and people. We believe that this expanded report demonstrates our commitment

to meeting our corporate social responsibilities. I am sure it will reveal that we bring the same enthusiasm to this task as we bring to meeting our safety and business objectives.

In preparing this report, we have been guided by standards developed by the Global Reporting Initiative (GRI). GRI has pioneered and developed a comprehensive sustainability reporting framework that is used around the world. Sustainability reporting refers to an organization’s public reporting on its economic, environmental and social impacts. We have drawn on the GRI guidelines to inform

our reporting here. We intend to work toward adhering to the GRI sustainability reporting standards in future reports.

As NAV CANADA employees manage our air navigation system (ANS) responsibilities, they also seek ways to benefit people, communities and our planet. I am proud of their achievements and proud of the culture we have created together – one built on respect, excellence and an unwavering commitment to all our stakeholders. Working together to have a positive impact on the world is a natural extension of our commitment to the people of Canada to keep our skies safe.



NAV CANADA is the company that owns and operates Canada’s civil air navigation service. That means we are responsible for the safe movement of all aircraft travelling in our assigned airspace, both over Canada and in parts of international airspace, such as over the North Atlantic. We are the world’s second-largest air navigation service by IFR flight hours,² handling 3.3 million flights for 40,000 customers a year.

A handwritten signature in black ink, appearing to read 'Neil Wilson'. The signature is fluid and cursive, with a large loop at the end.

NEIL WILSON

President and CEO

² Total number of controlled Instrument Flight Rules (IFR) flight hours in continental and oceanic airspace. NAV CANADA reported 3,520,433 IFR flight hours in 2016.



WE ARE

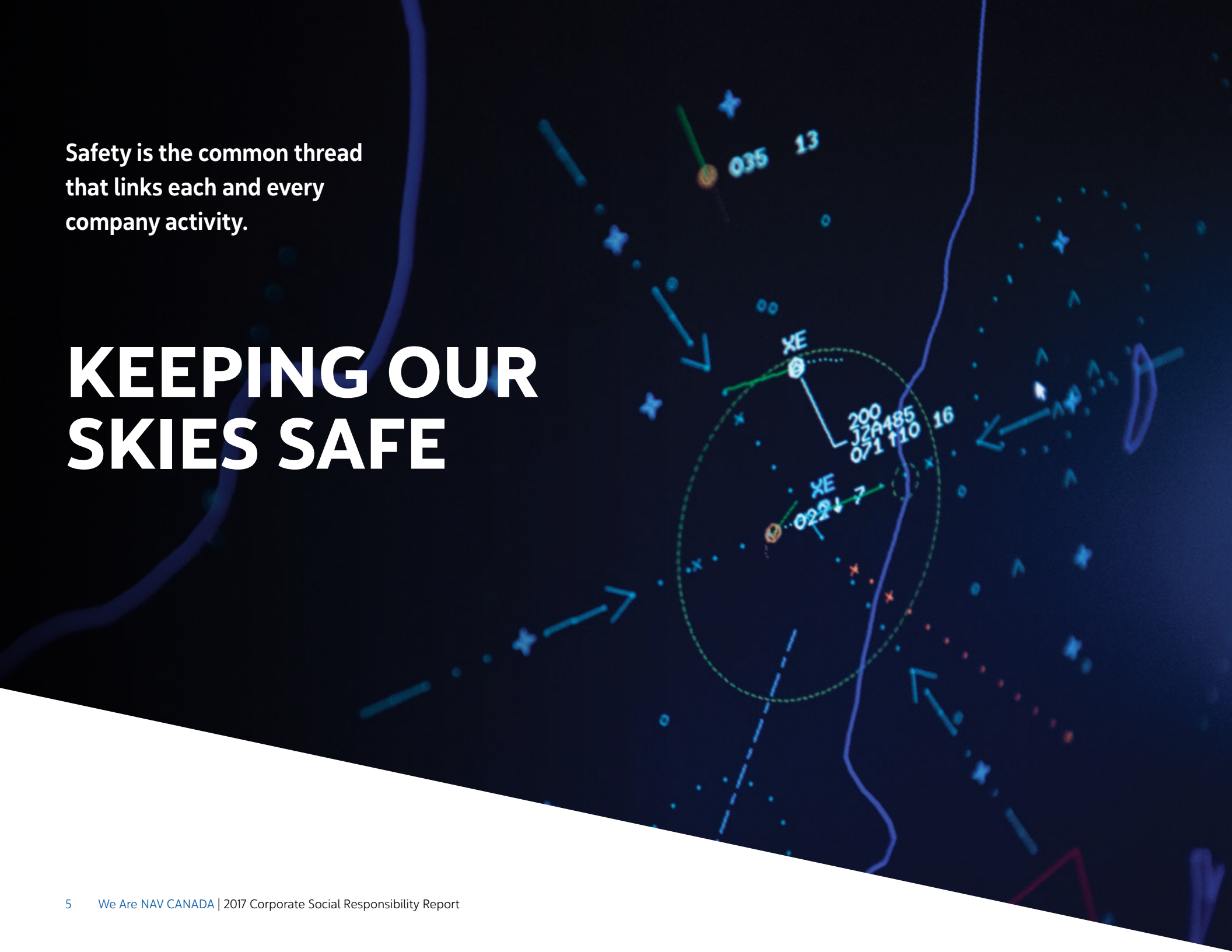
Sally Hung is an Air Traffic Controller at the Vancouver Area Control Centre.

21.0

Our key safety benchmark rate for IFR-to-IFR losses of separation per million flight hours as of August 2017, making us among the safest of major ANSPs worldwide.

Safety is the common thread
that links each and every
company activity.

KEEPING OUR SKIES SAFE



SAFETY

Providing air navigation services that ensure the safety of air travellers is the fundamental reason we exist as a company and our primary social impact.

Safety in the air navigation system is the result of an organization-wide safety culture that starts with each employee and extends throughout the Company. Since our formation in 1996, safety has been the common thread that links each and every company activity. Over the years, we have developed a strong safety culture, supported by an effective safety management system (SMS).³



Safety Culture

A safety culture is the enduring value, priority and commitment placed on safety by every individual and every group at every level of the organization. The success of an SMS depends

on developing and sustaining a positive and proactive safety culture. We are committed to the ongoing measurement and enhancement of our safety culture.

Through a variety of means, including surveys and assessments, we evaluate the state of our safety culture, identifying areas for improvement and implementing changes needed to sustain a positive, proactive, flexible and informed safety culture that supports reporting and learning.

Simon Premech,
Electronics
Technologist,
works airside at
Toronto Pearson
International
Airport.

³ A safety management system is a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures. The International Civil Aviation Organization (ICAO) requires air service providers to establish a safety management system that is accepted and overseen by their State. International Air Transport Association (IATA).

Ongoing SMS assessments in each flight information region are now linked to a regional safety culture survey, which provides timely and targeted results and enables direct follow-up with employees in the region.

Key to our safety culture is the company-wide joint management-union approach known as Just Culture, introduced in 2008 to support a collaborative, non-punitive work environment based on trust. Everyone is encouraged to provide essential safety information so that we can learn as much as possible

from incidents or errors. This information is essential to identifying potential issues and responding before they become serious.

We are extending our Just Culture philosophy into our training environment. This will support success and create an environment that allows employees to learn from both successes and failures.

Ryan Mannan,
Unit Operations
Specialist at
the Whitehorse
Control Tower.



Just Culture encourages everyone to provide essential safety information to identify potential issues.





SAFETY CHARTER

The strength of our Safety Management System rests with the people who provide and support Canada's air navigation system. NAV CANADA's Safety Charter embodies the safety commitment of these people:

- Safety is a part of everyone's job.
- Safety applies to everything we do, without exception.
- We will meet or exceed our safety targets and our customers' expectations.
- We will achieve excellence in safety through open communications.
- We will make a safe system even safer.

OUR SAFETY MANAGEMENT SYSTEM

We were among the early adopters in our industry to establish a company-wide SMS. We saw its importance to promoting safety awareness throughout the Company and ensuring the continuous improvement of our safety activities.

In 2008, when the federal government established SMS regulations for most of the aviation industry, we worked with Transport Canada to ensure the smooth assessment and validation of our SMS. In June 2012, Transport Canada confirmed that our SMS met regulatory requirements.

Our SMS provides an organized approach to managing safety risks, including the necessary organizational structures,

accountabilities, philosophies, policies, procedures and processes. Its effectiveness is rooted in the understanding that safety is every employee's responsibility.

Company activities in support of the SMS include corporate, group and project safety planning; incident and hazard reporting; aeronautical studies, SMS assessments, safety investigations, safety reviews and hazard identification; and risk assessment to manage risks associated with changes that may have an impact on operational safety.

The SMS is assessed regularly to ensure it remains effective. We also have strong working relationships with the aviation industry to facilitate the exchange of safety information and co-operation on dealing with safety risks.

ASSESSING OUR SAFETY MANAGEMENT SYSTEM

We also participate in a program developed by the Civil Air Navigation Services Organisation (CANSO) to assess the maturity of an air navigation service provider's SMS. Under this program, called the Standard of Excellence in Air Navigation Services – Safety (SEANS–Safety), our SMS is assessed annually against CANSO's standard. Its rating has consistently been among the highest worldwide. The CANSO assessment also allows us to evaluate areas such as emergency management, safety risk management and designing in safety, where further enhancements may produce additional benefits.



In 2017, CANSO recognized our safety pillar program as one of 13 safety management best practices. We will evaluate the other 12 best practices to identify areas for further improvement to our SMS.

— Air Traffic
Controllers
Craig Morrison
and Bradley
Young at the
Fort McMurray,
Alberta, Control
Tower.

SAFETY PERFORMANCE

One key indication of a strong safety culture and an effective SMS is an excellent safety record. Our safety record reflects our continuing focus on safety excellence and our overarching objective of being amongst the

safest air navigation service providers worldwide, and driving continuous improvement in the reduction of operational safety risks. We have consistently met that objective since 1996.

Contributing to this record are our widespread use of safety-enhancing technologies; an emphasis on getting the basics right, from staffing to procedures to sharing safety information; building a just safety culture; and the skill, training, and safety commitment of our people.

To evaluate the effectiveness of our safety initiatives, we benchmark our safety data against that of air navigation service providers around the world and against our own past performance.

The key international benchmark for safety among air navigation service providers is IFR-to-IFR losses of separation⁴ per million

flight hours. Using this measure, we are down from 25.0 losses of separation per million flight hours in 2004 to 21.0 as of August 2017. Our benchmark rate for this measure is less than 39. We continue to be among the safest of major air navigation service providers worldwide.

Beyond these rates, each loss of separation is classified based on risk, a measure of how close the aircraft came to one another. We have not had an IFR-to-IFR loss of separation classified as A1 Critical since 1998. In 2017, 97 per cent of the losses of separation that occurred were classified at the lowest risk level, with the vast majority having no risk of collision.

We are reviewing how we track our safety performance and will be implementing changes in 2018.

⁴ Aircraft flying under instrument flight rules where less than the authorized minimum separation existed, or in which the minimum was not assured.



SAFETY

Monique Hobson, a Flight Service Specialist at the Nanaimo, B.C., Flight Service Station.

SAFETY REPORTING

NAV CANADA also identifies and reports any operating irregularity (OI), an incident where aircraft come too close to one another or safety is otherwise jeopardized. We track all OIs and report them daily to Transport Canada and the Transportation Safety Board. Every OI, no matter how minor, is recorded, reported and, if appropriate, investigated so that we can learn and improve.

Another important tool in managing safety risk is recognizing hazards that can lead to aviation losses. Our safety reporting program, ARGUS, provides employees with the opportunity to identify and report potential hazards in confidence. Collecting, analyzing and tracking these employee-identified safety

hazards helps manage safety risk. Over the last 20 years, ARGUS has received an average of 52 submissions a year. In 2017, the system received 40 submissions, of which 25 have been closed. We are currently monitoring 24 (15 from 2017 and nine from 2016) of the 1,048 submissions received since ARGUS began.

SAFETY OVERSIGHT

Transport Canada regulates aviation safety under the *Aeronautics Act* and the *Civil Air Navigation Services Commercialization Act*. One of the advantages of the privatization of the civil ANS in 1996 was the separation of the safety regulator from the service provider, guaranteeing an arm's-length relationship.

NAV CANADA and Transport Canada participate in a joint Safety Oversight Committee. This and other forums support open communication between the regulator and the service provider. Our relationship with Transport Canada is a partnership committed to the safety of the ANS.

Following an audit of our SMS in 2017, Transport Canada determined that one of our quality assurance programs was not sufficiently connected across departments. We prepared and prioritized a corrective action plan, which Transport Canada accepted. We will implement the plan over the next two years. Our SMS is otherwise fully compliant with applicable Canadian federal regulations.

In addition to Transport Canada's formal oversight, our safety management includes oversight at multiple levels within the Company. These include the safety committee of the Board of Directors, which is responsible for monitoring the Company's operational risk-management safety policies, and our Safety and Quality department, which monitors the application of the SMS. It is also responsible for safety audits, investigations and other safety oversight activities.

SAFETY COLLABORATION

Collaborating and sharing safety information with our aviation customers and partner organizations is essential to a safe ANS. We continue to work with our aviation partners to share best practices and proactively manage safety risks in the industry.



We support the Runway Safety and Incursion Prevention Panel, which includes pilots, air traffic controllers and flight service specialists, airports and the federal government, and works to improve runway safety. The Canadian Aviation Safety Officer Partnership (CASOP) meets twice annually to share safety

information and discuss safety issues. The partnership has grown from 70 members in 2010 to more than 200 members in 2017.

GLOBAL COLLABORATION

We also contribute to international safety initiatives. As a member of CANSO, we lead benchmarking activities and help to develop safety-related best practices. For more than a decade, we have supported international reporting of safety data through CANSO. More than 40 air navigation service providers now contribute safety data to this initiative.

We have also contributed to developing CANSO's human performance standard of excellence. CANSO's human performance task force worked to identify how to apply human performance principles to maximize air traffic management safety and efficiency. We are using CANSO's human performance standard of excellence to benchmark our strengths in performance management.

GREATER SAFETY THROUGH AIREON

Aireon, a joint venture of Iridium Communications, NAV CANADA and the air navigation service providers of Ireland, Italy and Denmark, will extend the safety benefits of real-time surveillance across the globe.

Using ADS-B⁵ receivers mounted on Iridium's constellation of 66 low-earth-orbit satellites, which are currently being replaced, Aireon will be able to provide 100 per cent global surveillance coverage of ADS-B equipped aircraft in real time.

Once fully operational, Aireon will offer a free public service to the world's aviation industry to help track and locate suitably equipped aircraft in emergencies. Called Aireon Aircraft Locating and Emergency Response Tracking (ALERT), the service will provide air navigation service providers,

aircraft operators, regulators and search-and-rescue organizations with the most recent position of any ADS-B equipped aircraft.

Aireon ALERT will fill a critical need, ensuring emergency organizations have the most accurate aircraft position data when responding to an incident anywhere in the world. Aireon ALERT will utilize Aireon's satellite-based ADS-B data and will be operated by the Irish Aviation Authority (IAA). Aireon ALERT users will not have to be customers of Aireon.

Aireon is also partnering with flight-tracking data company FlightAware to provide airlines with real-time global tracking of ADS-B equipped aircraft. The service, called GlobalBeaconSM, will combine data from Aireon's space-based ADS-B network and FlightAware's flight-tracking data and web interface to help



airlines meet the requirements of ICAO's Global Aeronautical Distress and Safety System.

SAFETY INNOVATION

Our industry changes constantly, and we need innovative thinking to manage the safety risk associated with that change. Among our new approaches to managing safety risk are:

- an enhanced investigation process used to analyze

⁵ Automatic dependent surveillance – broadcast (ADS-B) is a surveillance technology that receives transmissions from aircraft containing their position and other information derived from GPS and on-board systems, and then transmits this information to air traffic control.

operational incidents and determine whether organizational factors contributed to them;

- a hazard identification and risk assessment (HIRA) process that has been effective at identifying and mitigating potential risks to operational safety during changes in technology, procedures and facilities; and
- two new tools to support safety risk analysis that provide a simpler alternative to the HIRA process:
 - the Change Safety Assessment, which can be used to assess a change to determine what safety activities should be applied to simple, routine or low-risk changes; and
 - the Change Safety Checklist, which uses a pre-defined checklist to assess the hazards and determine the required mitigations

associated with a change, and can be used for routine change or repetitive implementations of a change.

New processes were also added to our quality management system to collect, review and distribute best practices and lessons learned.

SAFETY INFORMATION SYSTEM

One of our safety goals is to ensure the integration of safety data into our SMS so that data-analysis tools can identify and address safety issues more effectively and efficiently. We are developing the NAV CANADA Safety Information System (NC-SIS) to support that goal. This multi-year project is designed to enhance our safety management processes and to replace applications that sometimes require duplicate data entry and manual efforts to measure and analyze safety information.

Phase One of the system has been implemented in all operational units, incorporating non-routine events, aviation occurrence reports, oceanic events, the SMS follow-up and preliminary investigations of operating irregularities. Subsequent phases will address flight operations events, ARGUS, operational condition reports, audits and HIRA, and introduce enhanced analytics.

The goal is to make SMS processes more efficient by delivering a system that captures, manages, analyzes and shares safety data and promotes collaboration, improves our ability to analyze trends and supports informed decision-making with respect to our safety risks.

CORPORATE SAFETY PLAN

Our Corporate Safety Plan plays a vital role in ensuring that we continue to lead the way in safety. The plan defines how we will continue to strengthen safety management and manage operational risks across the ANS.

In the coming fiscal year, our goals include:

- supporting the integration of safety data into our SMS;
- validating the alignment of business continuity and business resumption plans with emergency management program methodologies; and
- modernizing the Corporate Safety Plan.



WE ARE

Marc Alivio, Electronics Technologist at St. John's Control Tower, stands beside a NAV CANADA VHF omnidirectional range.

590 million litres

Estimated amount of fuel that our initiatives have helped our customers save in 2017 with a corresponding reduction in GHG emissions of more than 1.5 million metric tonnes.



We work with our industry partners to help reduce aviation's contributions to Canada's greenhouse gas emissions.

COMMITTED TO REDUCING ENVIRONMENTAL IMPACTS



ENVIRONMENTAL STEWARDSHIP

At NAV CANADA, we are committed to pursuing measures that reduce the impact of our operations, and those of our customers, on the environment.

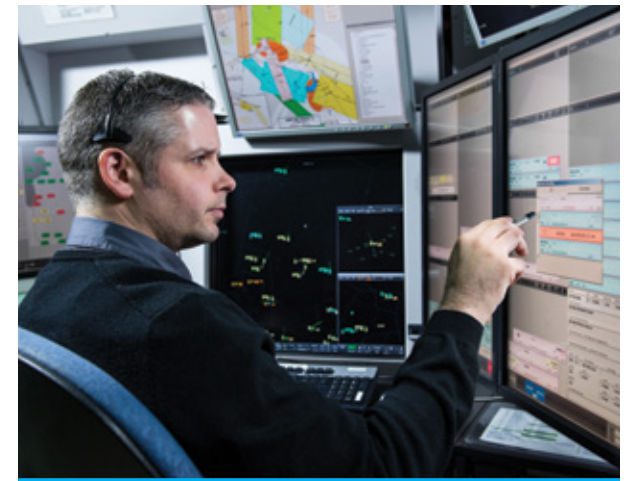
While we use only a small amount of aviation fuel in our own operations, our provision of air traffic services can have significant effects on our aviation customers' fuel consumption. We work closely with our industry partners to implement technologies and procedures that will reduce aviation's contributions to Canada's greenhouse gas emissions.

In 2012, we became a signatory, along with the Government of Canada and the rest of the Canadian aviation industry, to *Canada's Action Plan to Reduce Greenhouse Gas Emissions from Aviation*, referred to as the Action Plan. The plan outlines how the industry intends to reduce greenhouse gas emissions from aviation activities. Its goal is to improve aviation fuel efficiency from a 2005 baseline by an average of at least two per cent per year until 2020.

The plan focuses on three primary means of reducing greenhouse gas emissions:

- fleet renewals and upgrades;
- more efficient air operations; and
- improved capabilities in air traffic management.

The latest annual report under the Action Plan cited a number of achievements related to improved air traffic management. These included greater use of improved air traffic management technologies, such as performance-based navigation and advanced surveillance technologies.



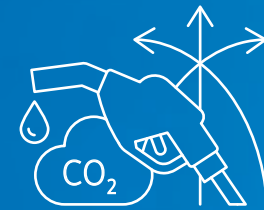
In December 2015, the Minister of Transport endorsed the Canadian Performance-Based Navigation (PBN) State Plan and presented it to the International Civil Aviation Organization (ICAO). The plan will help the

Jean-François Raymond, Air Traffic Controller at the Montreal Area Control Centre.

Canadian aviation community make the transition to performance-based navigation.

We are working on a variety of initiatives that help our customers to reduce their greenhouse gas emissions. These programs aim to improve in-flight and ground-movement efficiency and are supported by procedural changes and technological innovation. These initiatives enabled our customers to save an estimated 590 million litres of fuel in 2017, with a corresponding reduction in greenhouse gas emissions of more than 1.5 million metric tonnes.

From modernizing the design of Canada's airspace to implementing new technologies, we continue to find better ways to manage air traffic safely and efficiently, and reduce greenhouse gas emissions. This report highlights some of the initiatives we have undertaken to optimize air traffic services while improving efficiencies for our customers.



Required navigation performance helped aircraft operators save more than 980,000 litres of fuel and reduce their GHG emissions by 2,522 metric tonnes in 2017.





Increasing Flight Efficiency

NORTH ATLANTIC INITIATIVES

— Sadik Ahmad, an AIM Geographic Information System Assembly Specialist at the Ottawa ANS Combined Facility.

NAV CANADA is responsible for providing air traffic services in Canadian domestic airspace and the portion of international airspace delegated to Canada by ICAO.

This includes the airspace over the western portion of the North Atlantic (NAT), known as the Gander flight information region. This is part of the busiest oceanic air corridor in the world, with 445,700 flights crossing the NAT in 2017.

During the past several years, NAV CANADA has collaborated with the United Kingdom's air navigation service provider, NATS, on initiatives to reduce aviation fuel consumption and greenhouse gas emissions in this airspace.

The implementation of Reduced Longitudinal Separation Minimum (RLongSM) and the Gander Oceanic Flight Level Initiative (GOFLI) have helped airlines save significant amounts of fuel and reduce associated greenhouse gas emissions. These initiatives increase airspace capacity on the most efficient routes, allowing pilots to climb to higher altitudes as they cross the ocean.

In December 2015, we tested another initiative, Reduced Lateral Separation Minima (RLatSM), by adding a one-way centre track to the North Atlantic track structure. This track, separated by a half-degree of latitude⁶, can be used by suitably equipped aircraft.

This is particularly important for eastbound flights, because it allows more aircraft to fly with tailwinds.

In 2017, more than 10,000 flights used the new core track to fly more efficient routes, reducing fuel burn and greenhouse gas emissions. Additional new routes separated by a half-degree of latitude are planned for 2018.



The NAV CANADA Board of Directors has included the following environmental corporate objective in the Company's overarching objectives:

“The Company will achieve its mission by introducing measurable projects and initiatives which support a reduction of the environmental footprint of the aviation industry wherever feasible.”

Our corporate policy on the environment, designed to ensure company-wide support for our environmental goals, is supported by our environmental management system, which is registered to ISO 14001:2015, the world standard for environmental performance.

We are committed to providing air navigation services on a sustainable basis; conducting all of our activities in accordance with applicable environmental laws and regulations; and achieving levels of environmental protection and environmental performance beyond those required by law, whenever reasonably achievable.

⁶ 25 NM versus the normal lateral separation of 60 NM.

Modernizing Our Airspace

PERFORMANCE-BASED NAVIGATION

Performance-based navigation (PBN) is becoming the world standard for aircraft navigation. PBN redefines an aircraft's required navigation capability from sensor (equipment) based to performance based.

By using GPS technology and sophisticated electronic communications and navigation systems, PBN improves flight efficiency and reduces environmental impact. It makes it possible to design and use shorter flight paths and constant descent operations, which help to reduce fuel consumption and greenhouse gas emissions.

More PBN-based arrivals reduces the need for intervention by air traffic controllers and gives airlines greater predictability. PBN-based arrivals can also improve airport accessibility and reduce the likelihood of unstable approaches, which increase the risk of accidents.

AREA NAVIGATION AND REQUIRED NAVIGATION PERFORMANCE

Area navigation (RNAV) is a PBN technology that enables suitably equipped aircraft to fly on any flight path covered by navigational aids. NAV CANADA has published more than 1,500 RNAV procedures nationally.

Required navigation performance (RNP) is an advanced form of navigation that adds on-board performance monitoring and alerting to RNAV. In 2017, we published RNP arrival procedures for airports at Ottawa, Halifax and Edmonton, with more planned for the coming year.

Implementing RNP helped aircraft operators save more than 980,000 litres of fuel and reduce their greenhouse gas emissions by 2,522 metric tonnes in 2017. We are working toward implementing RNP procedures at 40 Canadian airports, which were selected in consultation with customers.





New RNP approaches were implemented for Calgary International Airport in May 2016. Their use in 2017 reduced cumulative track miles by 88,377 NM, a distance equivalent to flying four times around the Earth.

Managing Our Community Impact

Reducing the environmental impact of the aviation industry goes beyond initiatives to reduce fuel. We must also be conscious of the noise impact of aircraft operations for communities located near airports, and work to reduce that impact where possible.

Noise from airport operations can become a problem for nearby residential communities, and it's an issue that the

aviation community works to manage. NAV CANADA is an active member of airport noise management committees, providing technical expertise in our area of responsibility.

To facilitate effective consultation with affected communities on new flight procedures, we have joined with the Canadian Airports Council in the *Airspace Change Communications and Consultation Protocol*, which is designed to guide public consultation about these changes. The protocol provides a framework for talking about and considering noise issues in the design of flight paths, along with safety, efficiency and environmental considerations. It also outlines the roles played by various organizations; what type of airspace changes are



subject to consultation; and how those consultations will be conducted. It applies to proposed changes at airports with more than 60,000 IFR aircraft movements annually.

In 2017, NAV CANADA led community consultation efforts in Ottawa, Edmonton and Halifax on new performance-based navigation procedures. Those efforts resulted in the implementation of new flight paths that deliver efficiency benefits to our customers without negative impact on the communities, as shown by post-implementation reviews.

Also in 2017, the Independent Toronto Airspace Noise Review completed its work identifying community issues and determining whether

all reasonable efforts to reduce noise were being undertaken in airspace design. The review made 18 specific recommendations dealing with:

- reducing noise at source;
- improving collaboration;
- achieving quieter operations through air traffic management and flight operations techniques;
- new air traffic management and navigational technologies; and
- transparency on performance and performance-improvement goals.

NAV CANADA responded to the recommendations of the review in November 2017 and published implementation plans and clear timelines for action. This will be a significant focus of activity in 2018.

Our effort to work with our industry to manage aviation noise remains a work in progress and an area of significant focus. While we will be unable to eliminate operations of concern to communities, we are committed to working collaboratively to pursue improvements where possible.

This work is part of NAV CANADA's broader, proactive Stakeholder Relations Program. This program will formally manage our interactions with operators, airports and communities and has been developed to position the Company positively among these groups while protecting our corporate reputation and managing risk and increasing stability.

The program's purpose is to enhance our understanding of stakeholder needs, issues and concerns, and to identify where we best add value. It is directly aligned with NAV CANADA's corporate priorities, and capitalizes on the operational excellence of our people, ongoing innovation, and increased community involvement.

The program will be rolled out throughout the organization in 2018, aligning the Company on its approach to key stakeholders while building a stronger culture focused on the importance of stakeholder value.

Air Traffic Surveillance Goes Global with Aireon

Terrestrial surveillance systems, such as radar, are limited to line-of-sight and can be expensive to implement and maintain in remote locations. In airspace over oceans and polar regions, where there currently is no surveillance, airspace and air traffic management procedures must be highly structured, given that there is limited ability to provide optimum flight profiles and routes.

Aireon will change this by offering space-based ADS-B technology.

This ADS-B receiver network, mounted on the Iridium NEXT satellite constellation, will relay signals from all ADS-B equipped aircraft, allowing real-time

global air traffic surveillance, without requiring additional infrastructure by air navigation service providers.

Extending air traffic surveillance over oceanic and remote airspace will support more-efficient use of airspace, substantial fuel savings, lower greenhouse gas emissions, fewer delays and significantly greater safety over large parts of the world.

We made significant progress in 2017 when SpaceX launched 40 Iridium satellites into orbit. The remaining satellites are expected to be in orbit by mid-2018, and Aireon service will come online in the fall of 2018.



Following system acceptance testing, we will use Aireon data to increase our surveillance of oceanic and other remote airspace. Annual fuel savings on North Atlantic routes are expected to be more than 125 million litres per year, reducing greenhouse gas emissions by more than 300,000 metric tonnes annually.

We are working with Aireon on various testing protocols while preparing our own systems to use satellite-based ADS-B data to provide air traffic services. We began incorporating live Aireon data into our testing protocols following the launch of the first 10 satellites in early 2017.

SpaceX launch carrying payload of 10 Iridium satellites with Aireon ADS-B receivers. Photo courtesy of SpaceX, 2017.



Aireon ADS-B payload on Iridium low-earth-orbiting satellite.

AIREON'S FIRST FLIGHT TEST

The first flight test of the Aireon system was conducted in March 2017 by a NAV CANADA team flying one of our CRJ-200 flight inspection aircraft across northern Canada. The team's first goal was to confirm that the ADS-B payload was operating as intended. Its second goal was to determine whether the system could generate the data required for air traffic control. The flight, which crossed three flight information regions, was successful. The test yielded positive results. Overall testing results have exceeded expectations with respect to the ADS-B payload's update rate and sensor range.

GLOBAL BENEFITS

While we are looking forward to improving service in our airspace, the benefits of satellite-based ADS-B will be global. A 2016 study by the Purdue University School of Aeronautics and Astronautics⁷ found that by enabling full global surveillance, satellite-based ADS-B can help airlines save, on average, about two per cent of the fuel they currently consume in oceanic and remote airspace.

⁷ Environmental Benefits of Space-based ADS-B. Karen Marais, Ph.D., Associate Professor, School of Aeronautics and Astronautics, Purdue University, October 2016.

Sustainability Begins at Home

Helping our customers save fuel through more efficient operations is where we can have the greatest impact, but we also work to reduce the environmental impact of our own operations. Our corporate policy on the environment was designed to ensure company-wide support for our environmental goals. It is backed by our environmental management system, which is certified to the industry standard, ISO 14001.

ISO REGISTRATION

ISO 14001:2015 is the world standard for environmental performance. NAV CANADA is certified to this standard for strategic environmental direction and support for the operation and maintenance of the civil air

navigation service. We are one of the first air navigation service providers (ANSPs) to achieve that milestone.

Registration to this standard entails independent audits at least annually. Our registration demonstrates that we are committed to protecting the environment, improving our environmental performance and implementing our policies effectively.

Our Technical Operations department, which procures, designs, builds and maintains all the Company's land holdings, facilities and electrical power systems, has the lead on Environmental Management System (EMS) ISO 14001:2015 certification and is also certified to ISO 9001. The upgrade to ISO 14001:2015 was accomplished a year ahead of deadline.

FLIGHT INSPECTION OPERATIONS

We operate three aircraft for flight inspection: two Bombardier CRJ-200s and one Dash 8-100. Their crews ensure the accuracy and safety of both navigational aids and instrument approach and departure procedures. They also calibrate surveillance systems and troubleshoot communications issues.

With a country as big as Canada to inspect, all three of our planes are sometimes active for eight to 12 hours at a time. Flight checks themselves can be lengthy. Improvements to our flight inspection procedures have reduced the average time required for an inspection. We have been able to reduce fuel consumption per flight check by an average of 11.2 per cent per year for the last five years.

NAV CANADA CRJ-200 Flight Inspection Aircraft conducting a flight check.





Did you know that only one out of five plastic water bottles is recycled? And that the production of the plastic bottle itself requires up to three bottles of water?

To reduce the need for disposable water bottles, many of our facilities have been outfitted with water-bottle filling stations. Each filling station is saving approximately 12,000 bottles per year.

GREENING OUR FACILITIES

Our Three Green program, launched in 2006, engages employees in resource conservation at work, at home and in our communities. This helps us to identify opportunities to improve efficiency and reduce the environmental impact of facility operations. It also promotes energy efficiency, carpooling, cycling, no-idling and new energy-efficient technologies.

An initiative that is supporting our employees to “go green” is the installation of electric car charging stations in parking lots at our major facilities. At our Montreal ACC, 12 charging stations are installed, one at every other parking space, over 24 designated spots. This way, one station can serve two parking spaces and it is possible to charge 24 vehicles a day.

THE NAV CENTRE

Staff at our conference centre, the NAV CENTRE in Cornwall, Ontario, are working to reduce the facility’s impact on the environment. With 550 guest rooms and 50,000 square feet of meeting space, the NAV CENTRE maintains the International Association of Conference Centres’ (IACC) Gold Tier certification. It has also earned the coveted four-leaf status from the Audubon Green Leaf™ program, an international standard for environmental protection and energy efficiency in the hospitality industry, and a 4 Green Keys rating from Green Key Global.

These ratings are based on comprehensive voluntary audits, which cover all aspects supported by the NAV CENTRE’s environmental management

The NAV CENTRE has a comprehensive environmental management system.

system. Environmental objectives include upgrading to energy-efficient LED-based lighting; upgrading HVAC systems and water conservation practices; installing a “smart” facility control system; implementing waste-reduction plans; and conducting an annual waste audit.



SUPPORTING THE GRASSROOTS

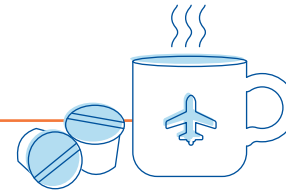
In 2017, we implemented the Grassroots Initiatives Sustainability Funding Program to provide financial support for employee-led environmental initiatives. NAV CANADA contributed more than \$19,000 to 14 grassroots sustainability projects.

Projects are submitted in four categories:

1. Green locations – beautify and improve the sustainability of the immediate surroundings with a green wall, company cleanup, company garden, etc.;
2. Green protection – protect species and provide a positive environmental impact by installing beehives, bat habitat boxes, vermicomposting, etc.;

3. Green conservation – improve quality of life by planting trees and through community cleanup, extended recycling programs, trail/park adoption programs, outreach, etc.; and
4. Green initiatives – advance innovation with independent activities like bike fix-it stations, farm-to-table cafeteria events, a green exchange for reuse, a work carpool application, etc.

Projects funded have included a hydroponic growing system, community gardens, a greenhouse project, tree planting, a beehive, bat habitats, a natural playground, vermicomposting, and whale-protection signs to remind boaters to slow down near whales. Tapping our employees' innovative thinking and local engagement has been successful, and we will expand this initiative in 2018.



Brian Leitch, a Flight Service Specialist at Grande Prairie Flight Service Station, shows a commitment to sustainability with a proposal for local recycling of coffee K-Cups that considers airport safety.

“I’d like to thank the Grassroots Sustainability Initiative team for accepting my proposal. You’ll also recall that greenhouses, compost heaps and anything that might create foreign-object debris were not a good fit for the Grande Prairie Flight Service Station. We are located inside the airport security fence, in the centre of a triangle made up of runways and a taxiway. Despite these limitations, we’ve found a way to do our part and be considerate of our customers and the flying public.”




WE ARE

Richard Surendrakumar, a Systems Engineer at the Technical Systems Centre in Ottawa, our hub of ATM software development.

\$2 billion+

The amount the Company has invested in new technology and facilities over the last 20 years.



The aviation sector supports high-value jobs across the country, and NAV CANADA is a key part of this vital sector.

INVESTING FOR THE FUTURE

ECONOMIC IMPACT

NAV CANADA's primary economic impact is providing Canada and our aviation customers with a safe, cost-effective and sustainable air navigation system (ANS). We support the provision of aviation services for Canadian and international air travellers and a safe and efficient Canadian aviation industry, which helps to link communities and people.

We are proud to provide an essential service in support of a vital industry that makes an important contribution to Canada's economy. As the *Canada Transportation Act Review Report*, known as the Emerson Report, noted: "Not only does air travel provide access and labour mobility to urban, rural, and

remote locations in Canada, but airports and air carriers act as economic engines for communities and for the country as a whole..."

The aviation sector supports more than 400,000 high-value jobs in industries – including aerospace, construction and tourism – across the country, and NAV CANADA is a key part of this vital sector.

Financial Performance

NAV CANADA receives no government funding and is financially self-sustaining. As we are a not-for-profit corporation delivering an essential safety

service, our operations and capital requirements are fully funded by service charges paid by our customers: commercial airlines and other owners and operators of aircraft flying in Canadian-controlled airspace.

Our customers measure value in safe and expeditious service, but also in reasonable service charges. It is critical that we manage the ANS in a cost-efficient manner and ensure that spending goes toward achieving our key goals. Our business operates 24 hours a day, 365 days a year, providing an essential national and international safety infrastructure. With most costs fixed and directly related to service delivery, we have



We manage costs and improve service by deploying new technology, developing new revenue sources and putting the right staff at the right place at the right time.

relatively few options to reduce costs further without reducing service, which is not acceptable in most cases.

To manage costs and improve service, we focus on three primary strategies: developing and deploying new technologies, deploying the right number of staff at the right place at the right time, and developing new revenue sources, including selling or licensing our technology and renting our conference facilities. These efforts help us keep customer service charges low while continuing to meet our business obligations.



James Zietak,
Manager, ATCISE
Simulation.

Our service charges are designed in accordance with charging principles established in the *Civil Air Navigation Services Commercialization Act*. In addition to these principles, the Act requires notices, consultation and announcements of new or revised charges.

The level of our charges is set to generate sufficient revenue to meet financial requirements. As a result of stronger than predicted traffic growth and effective cost control, we have reduced our base service charges twice in the last two years. Our rates today are lower than they were when they were first introduced in 1999. Additionally, this year we will refund customers 4.6 per cent of last year's billings.

REVENUE

In 2017, the Company continued its strong financial performance, supporting the continued operation and development of the Canadian ANS. Revenue for 2017 was \$1,294 million, compared to \$1,333 million in 2016. This reduced revenue was primarily due to lower revised service charges (7.6 per cent on average) that became effective September 1, 2016. Revenue decreases were partially offset by a 5.1 per cent growth in air traffic volumes.

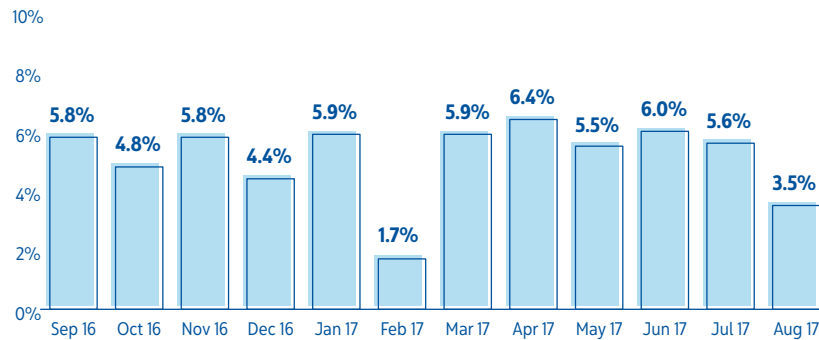
TRAFFIC GROWTH

We had forecast healthy traffic growth for 2017, but growth exceeded our expectations. This was particularly true for overflight traffic.

AIR TRAFFIC REVENUES
(\$ millions)



YEAR-OVER-YEAR CHANGE IN WEIGHTED CHARGING UNITS⁹
12 Months (Up to August 2017)

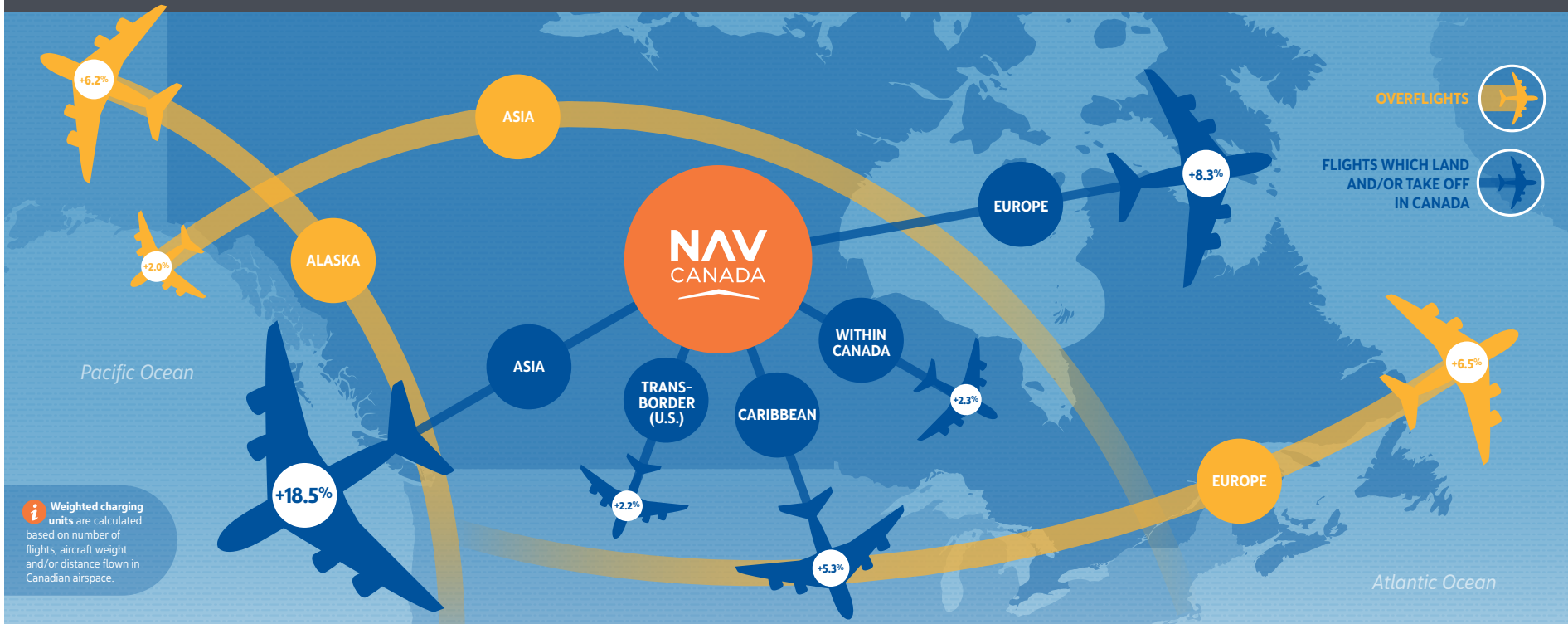


⁸ Excluding \$60M refund.

⁹ Weighted charging units represent a traffic measure that reflects the number of flights, aircraft size and distance flown in Canadian airspace.

TRAFFIC GROWTH

NAV CANADA measures traffic in weighted charging units. Traffic through NAV CANADA-controlled airspace grew **5.1%** year-over-year in fiscal 2017. The graphic below shows 2017 traffic growth by weighted charging units, accounting for **90%** of traffic.

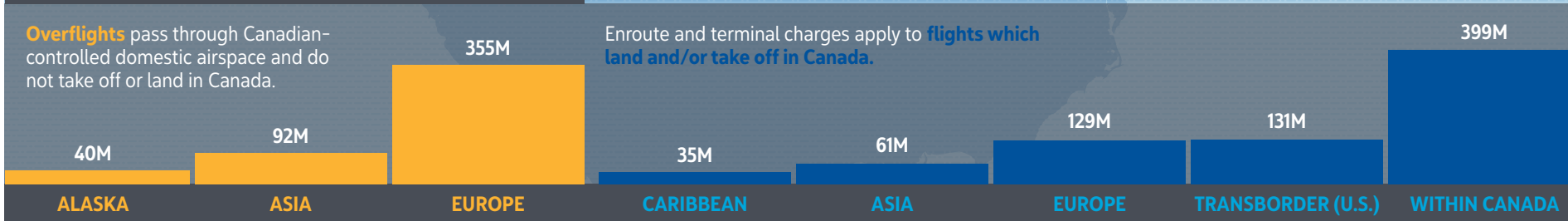


i Weighted charging units are calculated based on number of flights, aircraft weight and/or distance flown in Canadian airspace.

WEIGHTED CHARGING UNITS BY ROUTE, Fiscal 2017

Overflights pass through Canadian-controlled domestic airspace and do not take off or land in Canada.

Enroute and terminal charges apply to **flights which land and/or take off in Canada.**



ECONOMIC FOOTPRINT

Our mandate to provide service throughout Canada requires us to staff facilities across the country. Service is provided from 114 staffed sites, located in every province and territory.

Our workforce comprises management, technical and administrative support personnel and employees providing air traffic services. These include air traffic controllers, flight service specialists, operational support specialists, electronics technologists, engineers and pilots.

SMART INVESTING

Our operations benefit the economies of the communities where they are located, and our local spending on maintaining and updating our facilities and technology delivers local economic benefits.

The Company has invested more than \$2 billion in new technology and facilities over the last 20 years. Following several years of traffic decline, lower revenues and resulting cost-control measures, we plan to invest more in people, technology, systems and facilities.

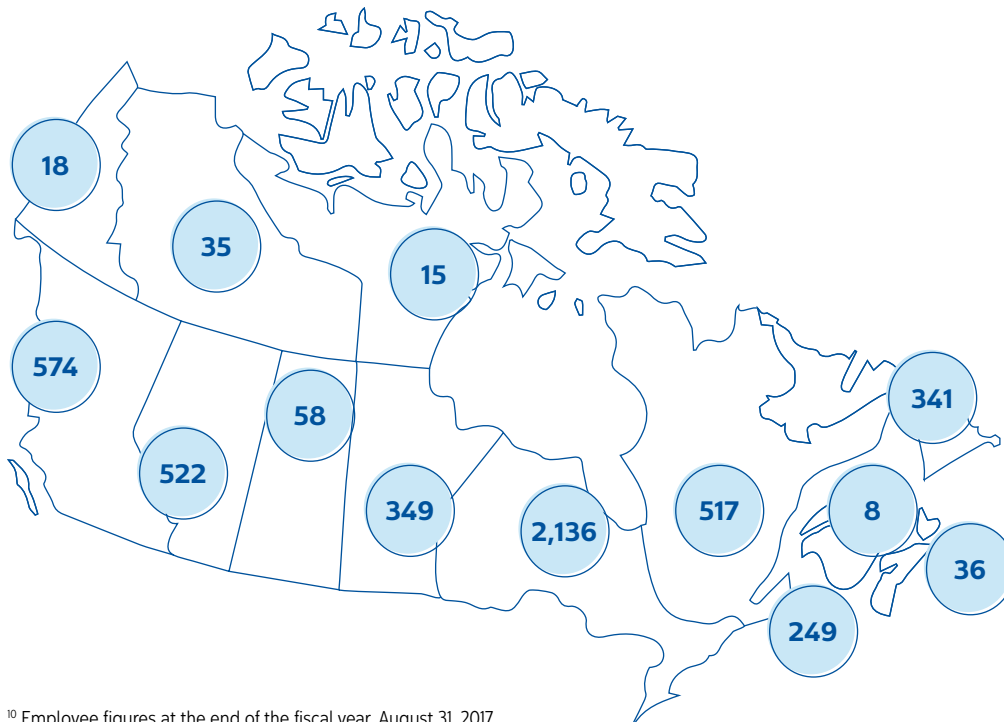
In fiscal year 2017, we initiated a three-year expanded capital program, which will see some \$500 million invested in our business. This includes training, air traffic management and business systems; new facilities;

communications, navigation and surveillance infrastructure; and satellite-based air traffic surveillance through our Aireon joint venture.

We normally conduct about 200 capital projects a year throughout Canada; the expanded capital program will see spending rise to \$170 million each year. This is about \$40 million per year above the normal level of such expenditures.

A significant portion of our capital expenditure from now through 2019 will focus on key facilities, including area control centres, air traffic control towers and flight service stations. These projects include the new air traffic control tower at the Region of Waterloo International Airport, which opened in 2017.

NUMBER OF EMPLOYEES BY PROVINCE¹⁰



¹⁰ Employee figures at the end of the fiscal year, August 31, 2017.

2017 CAPITAL SPENDING BY PRIMARY AREA OF STRATEGIC FOCUS



New dual redundant power systems will enhance the overall reliability of this critical system. Highly tolerant against electrical faults and with a longer life cycle, this important upgrade will help avoid unanticipated downtime and ensure that we are able to provide uninterrupted air navigation services in the event of a power outage. The new power system has been successfully tested at

our Toronto ACC. Projects at Moncton, Edmonton and Gander ACCs are scheduled for completion in 2019.

We will also make a significant investment in modernizing critical elements of the communications, navigation and surveillance infrastructure, including new terminal surveillance radar at 12 sites. The radar replacement project

will take 10 years and cost \$159 million, making it the largest capital project in our history. The first of the new radars is scheduled to go into operation in Hamilton, Ontario, by August 2019, with the last installed in Halifax, Nova Scotia, in 2028.

The 2017 capital expenditure plan provided for spending \$64 million on facilities, \$89 million on operational systems and \$18 million on corporate business systems. In 2017, our capital spending broke down according to our strategic priorities, as illustrated above.



WE ARE

Sania Swaffield works at the National Depot Order Desk in the Company's Logistics Centre.

2 years

The number of consecutive years NAV CANADA has been selected as one of Canada's Top 100 Employers (2017, 2018).



People are the foundation of our success,
and we strive to create a work environment
where our employees can thrive.

A GREAT PLACE TO WORK

Flight Service Specialists Steve Connolly
and Michael Bird at the Kingston Flight
Service Station.

PEOPLE

We have an important social impact as an employer – on the health and well-being of our employees and on the communities in which we live and work.

Top Employer

We strive to be seen as a top employer in the eyes of our employees. People are the foundation of our success, which is why we have made “having a work environment which places NAV CANADA amongst the best employers in Canada” part of our mission statement.

In return for their dedication and skill, our people receive excellent compensation, market-leading benefits, and opportunities to grow and advance. Based on the latest Statistics Canada data, most of our employees are in the top 10 per cent of Canadian wage earners, with a 10-year record of wage increases above the rate of inflation. NAV CANADA is also one of the few Canadian private-sector employers to offer a defined-benefit pension plan.

We strive to create a work environment where employees can thrive. Employees are supported by an industry-leading package of health and wellness programs. They have opportunities for

training and development and may be recognized for their efforts through our employee recognition programs.

This generates a positive energy that makes employees want to build a career at NAV CANADA. As a result, our attrition levels are low compared to other companies in our sector and in Canada. It is not unusual to see employees reach and exceed 35 years of service, but this does not preclude our welcoming new employees. We had 181 people join our ranks in 2017, bringing vibrancy and new energy to the Company.

DEFINING OUR EMPLOYEE VALUE PROPOSITION

In 2017, we consulted employees to help define our “employee value proposition,” the set of values and benefits that make working for NAV CANADA unique and that give employees a reason to build careers here. Feedback showed that employees value NAV CANADA because they can:

- do exciting work that makes a difference;
- be part of a high-achieving team; and
- do rewarding work that gives back.

These pillars will be integrated into our recruitment efforts in 2018 to demonstrate that a career at NAV CANADA is anything but ordinary.

LABOUR RELATIONS BUILT ON TRUST

Our employees have a say in how their company is run. As one of the Company’s founding stakeholder groups, they are represented on our Board of Directors. With 87 per cent of our workforce represented by eight unions, collective bargaining is an important focus for us.



Employees at NAV CANADA value doing exciting and rewarding work and being part of a high-achieving team.



Brian Cox and David Courtice, Flight Service Specialists, Kamloops Flight Information Centre.

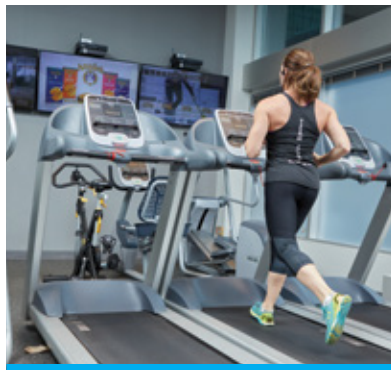
We take a constructive approach to labour relations, which are governed by mutual respect and trust. Our grievances have decreased tenfold over the past 10 years, a sign that we are now managing issues in a healthy and productive manner. This productive and collaborative working relationship has facilitated agreements that benefit all parties, and we have a 10-year record of wage increases above the rate of inflation.

This year, collective agreements have been renewed with four unions. Three of these – the Canadian Air Traffic Control Association (CATCA); the Air Traffic Specialists Association of Canada (ATSAC); and the Professional Institute of the Public Service of Canada (PIPSC) – include approximately 71 per cent of our represented employees. Their agreements will expire in the fiscal year ending August 31, 2019.

The collective agreement with the fourth union, the Association of Canadian Financial Officers (ACFO), representing approximately one per cent of our unionized employees, has also been renewed and will expire in the fiscal year ending August 31, 2020.

MAINTAINING WELLNESS

Among the factors that impressed the judges of the Canada’s Top 100 Employers competition was our focus on wellness, particularly the health spending account of up to \$750 per year for each employee. This



can be used to top up existing coverage or cover additional wellness-related expenses.

Our other market-leading health benefits and wellness programs include:

- an employee and family assistance program that provides professional counselling, consultations and health and wellness resources;
- fatigue-management resources aimed at enhancing safety and reducing fatigue-related risks through education, alertness strategies and scheduling practices;
- the Live Well website, which hosts a variety of tools, articles and links to useful information supporting healthy lifestyles, including details on our wellness programs and initiatives;
- the Best Doctors service, which provides access to expert medical specialists who support employees in understanding medical conditions and treatment options; and
- the CAREpath program, which provides clear advice, information and support to people with cancer.



One of our stated overarching objectives is to have a work environment that places us among the best employers in Canada.

We were pleased to be selected as one of Canada’s Top 100 Employers in 2017 and again in 2018, and to have placed second in Forbes’ Best Employers list for 2017.

**PEER SUPPORT—
THE BEST SUPPORT**

Our four peer-support programs have also been successful, including Light the Way, our mental health peer-support program, which has been recognized by the Canadian Mental Health Association. Since the program’s inception in 2012, peer volunteers have provided support to colleagues dealing with a mental health challenge.

Another successful peer-support program is Critical Incident Stress Management (CISM). With more than 180 peers, CISM provides support to employees following an operational incident or other stressful event. CISM peers are specially trained employees who volunteer to provide support to colleagues. All CISM discussions are strictly confidential.



Harry Nguyen, Electronics Technologist, and Shane Dale-Hicks, Team Supervisor, in the Toronto Area Control Centre Systems Control Room.

Our Chemical Dependency Education and Rehabilitation Program (CDERP), which helps employees get confidential treatment for chemical dependencies, also includes peer support.

THRIVE, our newest peer-support program, helps air traffic services students and instructors cope with the stresses of operational training. All of the peers are operational staff who have experienced the challenges associated with training and can offer empathy and practical support.

OCCUPATIONAL SAFETY AND HEALTH

Employee health and safety is also the focus of our robust occupational safety and health (OSH) program. All of our work sites with more than 20 employees have OSH committees. All other staffed sites have OSH site representatives, for a total of 160 OSH site representatives. Remote (unstaffed) sites are inspected annually for OSH compliance during scheduled employee visits.

We have two OSH policy committees: one for the general employee population and a second for members of the International Brotherhood of Electrical Workers union. This second committee was formed to address issues specific to these employees, who are most exposed to workplace hazards related to physical infrastructure and skilled-trades work.

Employer and employee representatives on both committees review incident reports, monitor trends, recommend new or revised policies or procedures, and review upcoming changes to practices and technology. Workplace committees and representatives ensure that regular workplace safety inspections are conducted, and they work together to resolve any local complaints or issues.

The Company has an OSH Emergency procedure in place for all sites, with access to a 24/7 monitoring centre and professional personnel. Our hazard management policy includes a job-hazard identification and assessment process, through which job hazards are identified by each working group.

OSH TRAINING

We provide an introductory course on the rights and responsibilities of employees and the employer related to occupational health and safety, with additional training for OSH workplace committee members and representatives and policy committee members.

Various other training tools provide information and training on specific systems or procedures to ensure personnel understand the details of working safely. These include our competency programs, defensive driving, fall protection and electrical safety.

The Company enjoys a good relationship with all workplace safety and policy committees. Our Environmental Occupational Safety and Health (EOSH) Services provide in-house OSH advisory services and expertise to help sites maintain personnel safety at all times. They are available to assist in dealing with job-related hazards, provide advice and clarify regulations.

RECRUITMENT AND TRAINING

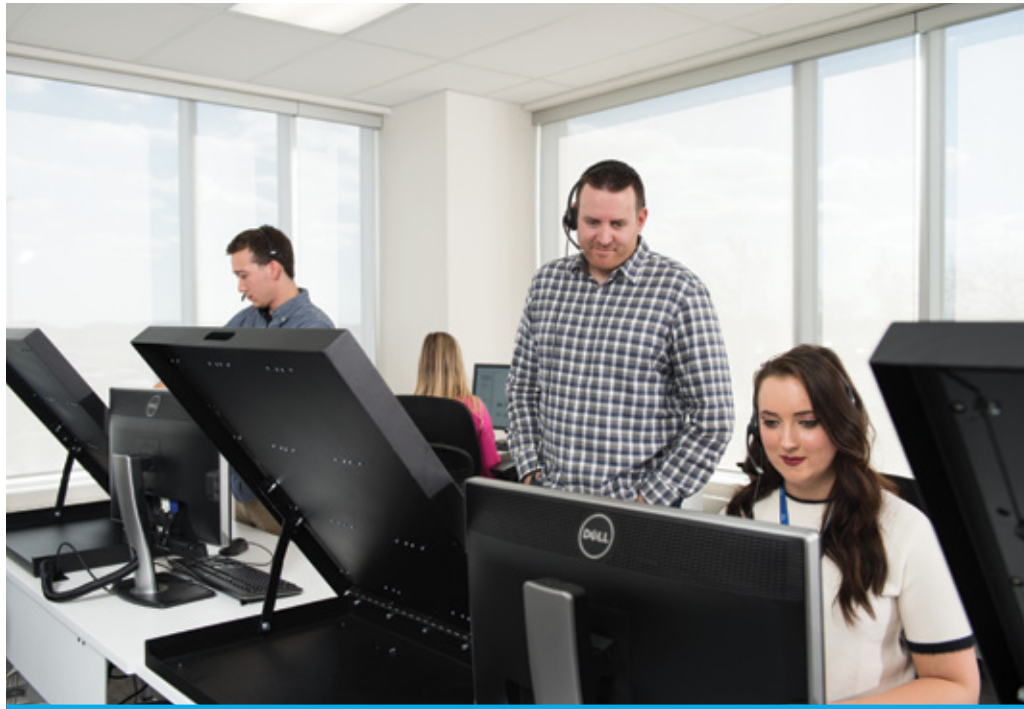
We are bringing an even sharper focus to making NAV CANADA a great place to work by ensuring appropriate staffing levels; supporting a diverse and respectful workplace culture; and providing a path to career advancement and leadership positions.

Recruiting and training skilled operational personnel is an important priority for the Company. Our objective is to reach 100 per cent of required staffing levels in all operational units. We are refining our recruitment and selection practices to ensure that we attract and select top talent. We are also making significant improvements to our training curriculum to ensure a coherent learning path.



We will continue to focus on improving recruitment, training and development strategies. Our expanded capital program earmarks investments in air traffic services training. Initiatives will include improvements to predictive tools and simulation tests to streamline the application process; enhancements to training materials and simulations; and additional professional development and support for instructors.

Until we achieve our staffing objective, we will continue to utilize overtime as needed to maintain service levels. Comprehensive planning helps to ensure an appropriate number of licensed and certified staff are available when and where required.



— **Darian Looyen, student, and Tyler Wilkinson, IFR Program Specialist, at the Toronto Area Control Centre.**

RECRUITING THE BEST

To attract top performers and to support our students, we eliminated student testing and tuition fees in 2016 and introduced a yearly student

training allowance of \$30,000. We also introduced an employee referral program to encourage employees to act as “talent scouts” in the search for candidates with the right aptitudes for the job.

In 2017, 5,800 candidates sought air traffic services positions. Of these, 190 students were hired for our air traffic services training programs, with 53 per cent recruited from our employee referral program. We also saw improved student success rates in air traffic services training in 2017, with 68 new air traffic controllers and 29 new flight service specialists taking up positions.

SUMMER STUDENT PROGRAM

Our summer student program offers students enrolled full time in college or university a summer job, as well as an immersive experience that provides insight into the aviation industry and NAV CANADA. The program continues to grow in popularity, as shown by the increase in the number of applicants,



PEOPLE

• Data Systems Coordinators Sébastien Hubert and Andrew Herscheid at the Montreal Area Control Centre.

from 1,192 applicants in 2016 to 2,032 applicants in 2017. Forty-eight students participated in the program in 2017. Many of our summer students have returned to become permanent employees following the completion of their studies.

FOSTERING LEADERSHIP

Leadership is critical if we are to deliver on our strategic business priorities, and we are working to support and grow our leadership ranks. This will mean determining what makes a great leader, identifying leadership candidates, and offering them challenges and opportunities.

We are also working to enhance our performance management tools to support leadership development and succession planning. This past year we developed a succession-management strategy and

continued developing Pinnacle, our internal leadership training program. Several other training programs began in 2017. Employees took training on harassment prevention, on the *Canadian Human Rights Act* and on cybersecurity.

DIVERSITY AND INCLUSION

NAV CANADA is committed to creating an inclusive and respectful work environment. We believe that valuing the unique skills and approaches found in a diverse workforce enables all employees to reach their full potential. This supports continuous growth in innovation, efficiency and overall organizational success.

As a federally regulated employer, NAV CANADA is subject to Canadian employment equity legislation. In 2011, the Canadian Human Rights Commission deemed our company an employment equity leader in the air transportation sector.

We continue to strive for excellence within the employment equity framework, but we have made a decision to go beyond this legislated framework and move toward an advanced culture of inclusion. To achieve that goal, we developed our first Diversity and Inclusion Strategic Plan.

Building an inclusive work environment requires a deliberate shift from our previous focus on internal diversity statistics and employment equity compliance. We are now

focusing on the business value and organizational effectiveness that can be achieved by actively encouraging diversity and inclusion.

We also know that an advanced culture of diversity and inclusion will bring positive changes to our business. These include:

- improving business performance and advancing business success;
- attracting and retaining top talent;
- improving the employee experience, leading to higher levels of employee engagement; and
- engaging leaders and employees in developing a professional and fulfilling workplace.

We are confident that, by fostering an inclusive work environment where employees with diverse backgrounds and experiences are encouraged to contribute their thoughts and opinions, we will be better equipped to attract and retain top talent while advancing our business goals.

We will continue our efforts to recruit more women and members of other groups that are under-represented in the Company, as well as in technical and operational positions and in senior management. In the Company overall, 24 per cent of employees are women. One third of our Board of Directors are women, and 35 per cent of senior management positions, defined as director level and higher, are held by women.



“This strategy is rooted in the thoughts and ideas that we heard from employees about diversity and inclusion. I feel inspired by the perspectives shared by employees and HR leaders across the Company that are reflected in our plan for moving forward. People at NAV CANADA have valuable and vibrant ideas about what inclusion can look like at work, making this kind of dialogue integral to the advancement of our efforts within the organization.”

– Deanna Fialho, Diversity and Inclusion and Privacy Specialist

In the Community

With a national presence as large as ours, we want to benefit the communities where we operate. The Company strives to be both a good neighbour and a good corporate citizen, and encourages and supports employees in their community activities.

CHARITABLE GIVING

Recognizing our employees' impressive commitment to their communities, we support their engagement in worthy causes and offer financial support to charitable and not-for-profit community activities. This support is allocated proportionally to our seven flight information regions, the NAV CENTRE in Cornwall, Ontario, and the National Capital Region based on our workforce

distribution. We will be reviewing our charitable support programs in 2018 to ensure that they achieve maximum benefit.

The regional matching program, with a \$350,000 investment, provides matching funds for employee group fundraisers in each flight information region. The employee contributions program earmarks \$130,000 annually for small donations to community-based activities. More than 300 organizations have received small donations at the request of employees.

Every year, our employees donate thousands of hours – and hundreds of thousands of dollars – to campaigns in support of their communities. These campaigns include:

GROWING HOPE

Employees in Ottawa have been major contributors to the Ottawa Hospital Foundation through our Growing Hope campaign, and 2017 was our 10th year raising funds for the hospital and its cancer research. This year's campaign raised more than \$371,000, with the 10-year total now at \$3.15 million.

Fundraising events included the NAV CANADA hockey tournament, which raised \$8,700, and this year's NAV CANADA golf tournament, which brought in more than \$118,000. Everyone at NAV CANADA takes pride in knowing that our partnership with the Ottawa Hospital Foundation supports the work of Dr. John Bell, Senior Scientist,

NAV CANADA's employees helped keep winter's chill away by supporting the Snowsuit Fund.



Cancer Therapeutics, and his team's research in developing cancer-fighting viruses.

Our employees also contribute to causes across Canada, such as the United Way and the Movember campaign, and to local initiatives including the Be My Hero campaign for the Children's Hospital Foundation of Winnipeg, the Défi-Vélo in Quebec, and the Terry Fox Run in Yellowknife and other locations.

HOPE AIR

With a keen understanding of how important air travel can be for those in need, NAV CANADA employees are enthusiastic champions of Hope Air. This charity has worked for more than 30 years to provide free flights to low-income people who must travel for medically necessary health care. The Company has raised more than \$600,000 in

recent years through charity golf tournaments and other fundraising activities, supporting the purchase of more than 2,000 flights for individuals in need.

SPECIAL OLYMPICS

We also played a central role this year in the Special Olympics Summer Games, which took place in and around Moncton, New Brunswick. Our Company was the title sponsor for the event, which included competitions in athletics, swimming, golf, bowling, softball, bocce ball, soccer and powerlifting. In addition to a corporate financial contribution, our employees donated their time. Nearly a quarter of the more than 140 volunteers at the event were from NAV CANADA.



Nearly a quarter of the volunteers at the Special Olympics Summer Games in Moncton were from NAV CANADA.

THE PUSH FOR CHANGE

Many of our employees raised money this year to fight youth homelessness as part of The Push for Change campaign. Joe Roberts launched the national campaign in Newfoundland on May 1, 2016, when he began pushing a shopping cart across Canada to raise funds to support his goal of ending youth homelessness. His journey ended 17 months later in Vancouver, British Columbia, on September 29, 2017.

Joe met with our employees in Gander on May 14. On September 26, he was in Ottawa, where he received a NAV CANADA corporate contribution of \$13,025 for the campaign, matching the amount raised by employees across the country. Each of our flight information regions hosted a 5K walk/run organized by a designated Push for Change representative in the region.

GOVERNANCE

NAV CANADA's governance model is unique in many ways and drives our stakeholder focus. We are a non-share capital corporation, created in 1995 to acquire the civil air navigation system from the Government of Canada.

Following Parliament's passage of the enabling *Civil Air Navigation Services Commercialization Act* in June 1996, the transfer of ownership took place on November 1, 1996, with NAV CANADA paying \$1.5 billion to the federal government. Financing for the purchase was raised in the bond market.

Today, NAV CANADA is responsible for providing air traffic control and related services in 18 million square kilometres of Canadian-controlled airspace.

Our dedicated employees provide services to 40,000 commercial and general aviation customers from facilities throughout Canada. These services include air traffic control, flight information,

weather briefings, aeronautical information services, airport advisory services and electronic aids to navigation.

Our facilities include area control centres, airport control towers, flight service stations, flight information centres and community aerodrome radio stations, as well as the surveillance, navigation and communications infrastructure necessary for the system.

Stakeholder Representation

NAV CANADA represents a unique consensus among the Company's four founding stakeholders: the Government of Canada, commercial air carriers, business and general aviation, and our employees, represented by their unions.

The corporation has five Members: the Government of Canada, the commercial air carrier Member, the general aviation Member, the labour unions Member, and the Director Member. These Members elect 14 of the 15 Directors. The President and CEO is also a Director.

Board of Directors

The Board is composed of Members as follows, all of whom must be Canadian citizens:

- four Directors elected by commercial carriers through the National Airlines Council of Canada (NACC);
- one Director elected by business and general aviation through the Canadian Business Aviation Association (CBAA);
- three Directors elected by the Government of Canada;
- two Directors elected by employee unions;

- four independent Directors elected by the Board through the Director Member; and
- the Chief Executive Officer.

While appointees to the Board are elected by specific stakeholder interests, they do not represent those interests, and they must abide by the common-law fiduciary duty to act honestly, in good faith and in the best interests of the corporation. Additionally, no one may be elected to the Board who is an elected official or an employee of any level of government in Canada, or an officer, director or employee of a significant ANS customer or supplier, or an active union officer.

Advisory Committee

The Company's by-laws provide for a 20-member Advisory Committee appointed by aviation stakeholders. The role of the Advisory Committee is to study, report, and make recommendations on any matter relating to the ANS as it may determine in its sole discretion. For transparency purposes, the report of the Advisory Committee is included in the NAV CANADA Annual Report.



Installation Technologist Wei Wang at the Edmonton, Alberta, Engineering Workcentre.



OUR VISION, MISSION AND OBJECTIVES

Sonia Piccinin,
Unit Operations
Specialist,
Edmonton
Control Tower.

NAV CANADA's vision is to be the world's most respected ANS:

- in the eyes of the flying public for our safety record;
- in the eyes of our customers for our fee levels, customer service, efficiency and modern technology; and
- in the eyes of our employees for establishing a motivating and satisfying workplace with competitive compensation and challenging career opportunities.

That vision drives a mission that we be a world leader in the provision of safe, efficient and cost-effective air navigation services on a sustainable basis, while providing a professional and fulfilling work environment for our employees.

Our Overarching Objectives

The Board of Directors establishes overarching objectives for the Company that are reviewed regularly. While many have been achieved, they remain a guidepost that directs our ongoing efforts and keeps the Company focused:

- 1** Being amongst the safest ANSPs worldwide and driving continuous improvement in the reduction of operational safety risk.

- 2** Maintaining ANS customer service charges among the lowest of major ANSPs worldwide, and ensuring over the long term that the growth in operating costs does not exceed the growth in traffic.

- 3** Providing value to our customers by contributing to improving their operational efficiency through the use of innovative technology and effective delivery of service, domestically and internationally.

- 4** Having a work environment which places NAV CANADA amongst the best employers in Canada.

- 5** Introducing measurable projects and initiatives which support a reduction of the environmental footprint of the aviation industry wherever feasible.



Corporate Information

Inquiries for additional information relating to the Company should be directed to:

NAV CANADA
Communications
77 Metcalfe Street
Ottawa, Ontario
Canada K1P 5L6

General inquiries can also be made by calling 1-800-876-4693, or by visiting our website at navcanada.ca.

Serving a world in motion
navcanada.ca