

ANNUAL REPORT 2018



INSIDE

- 2 About NAV CANADA
- 4 2018 Highlights
- 6 Message from the Chair of the Board
- 8 Message from the President and CEO
- 11 Strategic Plan Update
- 31 Points of Pride Award Recipients
- 33 Corporate Governance
- 44 Advisory Committee
- 47 Officers and Other Information
- 48 Glossary
- 49 Consolidated Financial Statements



*On the Cover:
Aircraft fly simultaneous "side
by side" RNP-AR approaches
at YYC using the new EoR
standard captured here on
a controller's radar display.*

About NAV CANADA

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 its innovative technology used by air navigation service providers (ANSP) worldwide.

Innovation has been a hallmark of NAV CANADA from the very beginning, when key stakeholders in Canada's air navigation system came together to create a new way of managing the country's civil airspace.

From the outset, NAV CANADA found novel approaches for delivering on its promise of a safer, more efficient and cost-effective system. For example, technology development, a key driver of performance, was brought in-house and into the hands of innovative employees. The result is that systems and solutions developed by NAV CANADA teams are now in use across our Canadian facilities and at many of the world's busiest airports. Today, we are also partners in one of the most transformational changes in our industry since the advent of radar: the introduction of space-based air traffic surveillance technology.

In our dynamic industry, the need for progress never stops. We at NAV CANADA have proven our ability to rise to challenge and change, and look forward to building on our 22-year legacy.

ABOUT NAV CANADA

Our Vision

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

- in the eyes of the 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.

Our Mission

To 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 Company will achieve its Mission by:

1. Being among the safest ANSPs worldwide and driving continuous improvement in the reduction of operational safety risks;
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 among 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.

Michelle Philp Flight Service
Specialist Team Supervisor,
Victoria FSS

BY THE NUMBERS



**18
million**

KM² OF AIRSPACE



**3.3
million**

FLIGHTS ANNUALLY



5,000

EMPLOYEES

Our employees are the air traffic controllers, flight service specialists, engineers, technologists, software developers, managers, analysts and other professionals who manage air traffic, maintain systems and infrastructure, run our business, and develop solutions for improving aviation safety and efficiency.



40,000

CUSTOMERS

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



1,500

FLIGHTS

in Gander oceanic airspace daily



114

STAFFED SITES

from coast to coast to coast

2018 HIGHLIGHTS



5.1%

INCREASE IN AIR TRAFFIC VOLUMES, the fifth consecutive year of growth



FIVE-YEAR MOVING AVERAGE OF

0.67

IFR-TO-IFR LOSSES OF SEPARATION* per 100,000 aircraft movements, ranking us in the top decile of major air navigation service providers for safety



AVERAGE

0.4%

REDUCTION IN CUSTOMER SERVICE CHARGES

announced in August 2018, our third rate decrease in as many years



\$185 million

INVESTMENT IN TECHNOLOGY AND INFRASTRUCTURE in fiscal 2018



13

SITES WITH REQUIRED NAVIGATION PERFORMANCE ARRIVAL PROCEDURES, helping aircraft operators save fuel and reduce greenhouse gas emissions



300+

REGISTERED CHARITIES AND NON-PROFIT COMMUNITY ORGANIZATIONS supported through employee and company charitable contributions



1,600

ACTIVE CONTROLLER WORKSTATIONS using NAVCANatm technology at over 100 sites worldwide

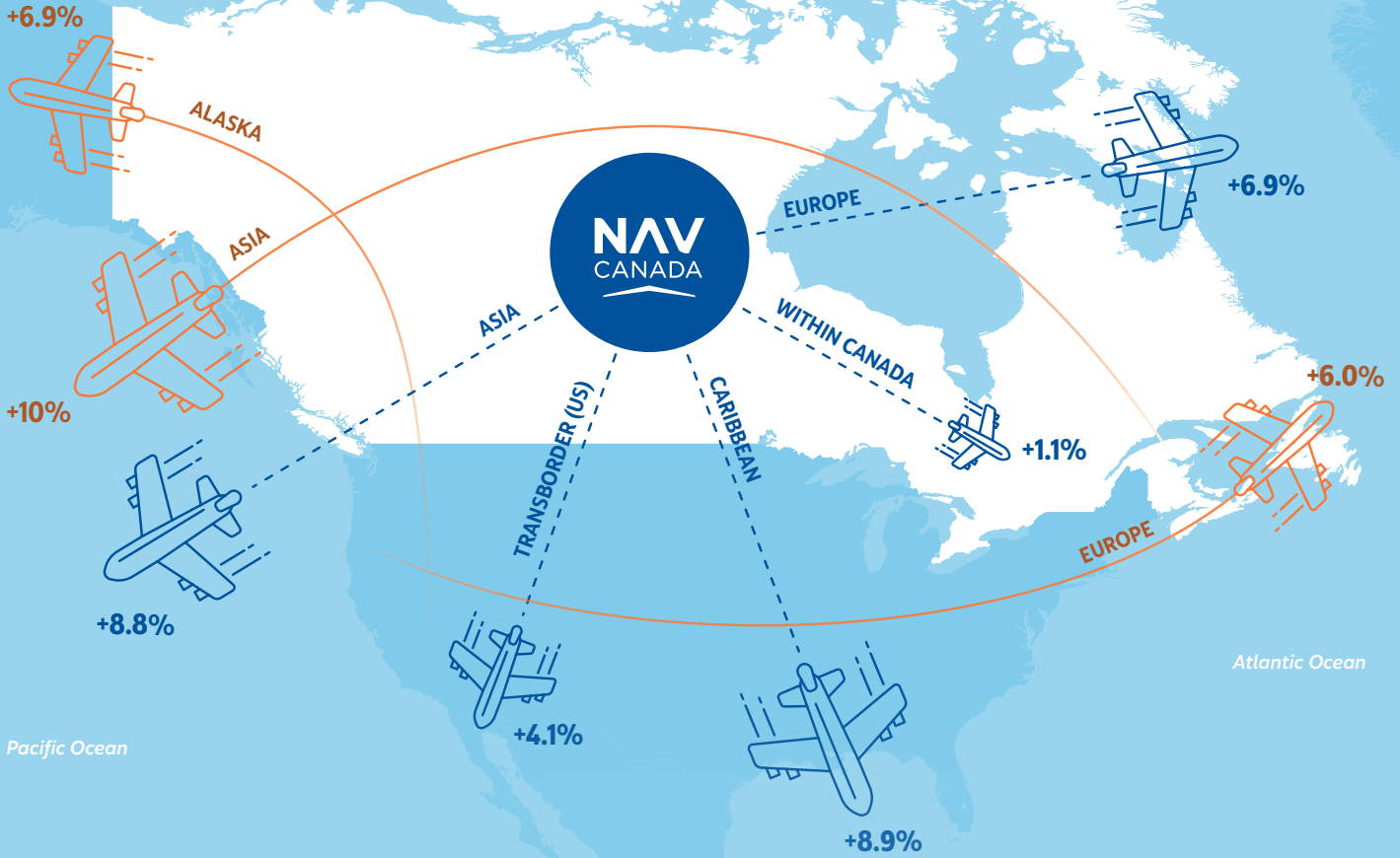
*IFR-to-IFR losses of separation measures aircraft flying under instrument flight rules (IFR) where less than the authorized separation existed or in which the minimum was not assured.



OVERFLIGHTS



FLIGHTS WHICH LAND AND/OR TAKE OFF IN CANADA



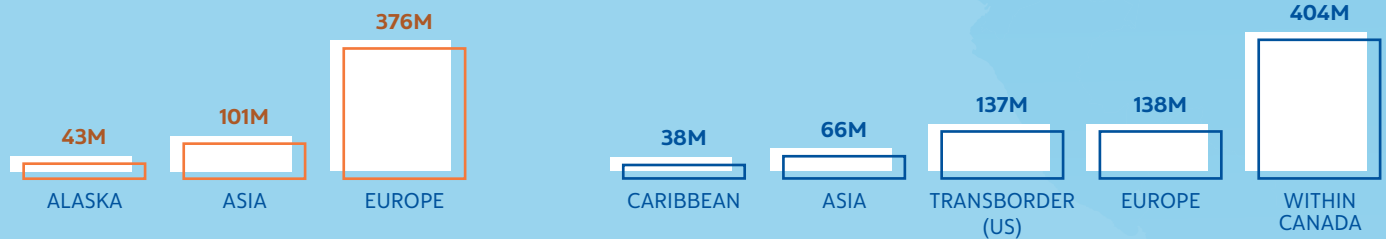
TRAFFIC GROWTH

NAV CANADA measures traffic in weighted charging units. Traffic through NAV CANADA-controlled airspace grew 5.1 per cent year-over-year in fiscal 2018. The graphic below shows 2018 traffic growth by weighted charging units, accounting for 90 per cent of traffic.

WEIGHTED CHARGING UNITS BY ROUTE, Fiscal 2018

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**.



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

MESSAGE FROM THE CHAIR OF THE BOARD

From the time NAV CANADA was founded in 1996, the Company has continued to break new ground as an air navigation service provider. In every aspect of the business, we look at what we can do today to serve our stakeholders better – and how we can prepare to meet their future needs. This perspective drives innovation, both for today and for tomorrow.

Our commitment to innovation has its roots in the Company's origin, when the major stakeholders in Canada's air navigation system collectively decided that they needed a better way of doing things. They created a non-share capital corporation that would be governed by a multi-stakeholder Board of Directors, in which all interests are represented but none dominates. This model has served us well for 22 years – ensuring that our air navigation system is safe, efficient, cost-effective and innovative – and set us up to address the changes we are now seeing in aviation.

Fiscal 2018 performance highlights

A look at our fiscal 2018 achievements points to the merits of our innovative approach.

The NAV CANADA safety record is among the best in the world and, in fiscal 2018, we achieved our safest year

ever. Our five-year moving average, as measured by the rate of IFR-to-IFR losses of separation, was 0.67 per 100,000 aircraft movements, improving from 0.68 in 2017.

As air traffic volumes have grown, we not only have kept pace with demand for our services, but have also been able to reduce customer service charges. In August, we announced an average 0.4 per cent reduction in charges, our third rate decrease in as many years. This effectively continues the one-year temporary rate reduction implemented on September 1, 2017, and it means that, on average, customers will pay the same rates in fiscal 2019 as they did in fiscal 2018. In fact, we have not had an overall rate increase since 2004.

At the same time, we continue to position the Company for the future through smart investments in people, technology and infrastructure. We increased capital expenditures to



Marc Courtois
Chair of the Board

almost \$185 million in fiscal 2018, in the second year of a three-year program. Much of this spending is focused on system upgrades, investments in new air traffic management technology and business systems that support the work of our people, and facility refurbishments and replacements. We're also modernizing our communications, navigation and surveillance infrastructure, especially related to our upcoming operational deployment of space-based ADS-B technology.

Inroads in stakeholder relations

As a Board, we could not be prouder of the progress NAV CANADA has made, in fiscal 2018 and over the past several years. We are especially pleased to see inroads made in stakeholder relations, having ourselves benefited for many years from the advice and support of the NAV CANADA Advisory Committee. The Committee's report can be found on page 44 of this Annual Report.

Today, the Company is reaching out to more customers, industry partners and communities to find out how we can improve and work together on common issues – improving safety, responding to increasing capacity, reducing the industry's environmental impact, and managing noise. In so doing, we learn, we improve, we innovate.

Heartfelt thanks

I would like to thank my colleagues on the Board for their contributions this past year. Through your efforts, you are

reaffirming the value of the Company's unique governance structure and ensuring a solid foundation for the future. I would also like to welcome David Weger, who was elected by the Canadian Business Aviation Association and joined our Board in January 2018.

Lastly, our Board would like to thank Neil Wilson, his management team and all NAV CANADA employees for the incredible job they have done again this year. They are an inspiration to us all, raising the bar on aviation safety, efficiency and cost-effectiveness, and in the process helping to transform the industry.

It was my pleasure to present Chairman's Awards for Employee Excellence to some of our outstanding employees at our national awards night. Their skills, competence and leadership shine through in support of our air navigation service, our communities and our environment. The 32 winners are listed on pages 31 and 32 of this report.

Thank you to the entire NAV CANADA team. As much as we have achieved in the past year – and indeed over the past 22 years – we believe the best is yet to come.

Sincerely,



Marc Courtois
Chair of the Board

MESSAGE FROM THE PRESIDENT AND CEO

This is an exciting time to be working in aviation, with ongoing air traffic growth bringing real-time challenges and unprecedented opportunities in equal measure. NAV CANADA people and systems are being put to the test on a daily basis, and we are excelling at every turn: safely and efficiently moving more aircraft, and innovating in both small steps and quantum leaps.

This is a company that by its nature has changed the way air navigation services around the world are viewed and deliver their services. When we look at the issues we have faced in aviation in Canada throughout our history, or at the growth in air traffic we are currently experiencing, a clear pattern emerges of NAV CANADA rising to the challenge. We have been able to anticipate and respond to customers' evolving needs, connect with stakeholders and communities to address operational issues, and innovate to make the next leap forward in aviation safety and efficiency. With the imminent deployment of space-based ADS-B technology, we are now joining forces with industry partners to usher in a new era for air traffic surveillance.

Building a solid foundation

So much of what we accomplished in fiscal 2018 has helped build a solid foundation for what's ahead. Details are

provided in the Strategic Plan Update section of this report, but I would draw your attention to the following:

Safety – We expanded the scope of our Corporate Safety Plan to include specific actions for enhancing our safety management system and mitigating key operational safety risks. Following a robust risk assessment, we are addressing head-on a range of safety-related issues, with student pilots and unmanned aerial vehicles (or drones) flying in our airspace at the top of our list.

People – To staff up for the projected growth in air traffic, we recruited and trained more new air traffic controllers and flight service specialists this past year. We also made progress on our journey to be one of the best workplaces in Canada: our overall employee engagement score rose since our last survey in 2016 and NAV CANADA was named among Canada's Top 100 Employers for the third consecutive year.



Neil R. Wilson
President and CEO

Service – Our focus on enhancing service delivery paid dividends, with material improvements in on-time operations and declines in delays and restrictions. This was achieved through the excellent work of our employees, who stepped up repeatedly to deliver when needed, and through our efforts to upgrade training, increase collaboration and consultation with customers, stakeholders and communities, and invest in the right tools for those on our operational frontlines to work more efficiently.

Technology – While multiple teams across the Company were involved in preparing and testing our systems for space-based ADS-B, others closer to the ground were spearheading innovations aimed at improving performance at Canada’s four major airports, starting with Toronto Pearson. Other teams were launching a multi-year initiative to shift our internal business systems to next-generation cloud-based solutions.

Finance and governance – Running the business in a sound and cost-effective way enabled us to announce an average 0.4 per cent reduction in customer service charges, delivering our third rate decrease in as many years.

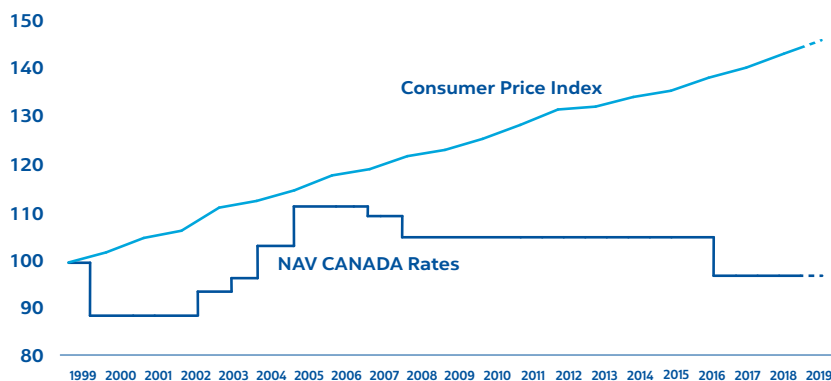
Brand – NAV CANADA plays an important role in aviation around the world, in Canada and in our communities, but like most Canadians, we tend to be modest about our accomplishments. This past year, we put greater effort into communicating our activities and accomplishments with stakeholders, employees and our communities. We were proud to be designated a Caring Company by Imagine Canada for our leadership in charitable giving, and the superb volunteer efforts of our employees. We also went to our employees to find out what makes NAV CANADA unique and their answers led to the rollout of our recruitment brand, *Leave Ordinary Behind*.

Recognizing excellence

Each year, we recognize and celebrate NAV CANADA employees who embody our company values and have done something extra special to help us achieve our goals. NAV CANADA’s success is thanks to them – and all of our highly motivated employees working in every province and territory.

In the fall of 2018, I presented President’s Awards for Outstanding Achievement to one individual and two teams. A manager was recognized for her strong leadership and team building skills through a period of organizational transformation. A team

HISTORY OF NAV CANADA RATE CHANGES⁽¹⁾ VERSUS CONSUMER PRICE INDEX⁽²⁾ INDEXED TO 1999



(1) Average changes since charges were fully implemented on March 1, 1999.
 (2) Consumer Price Index – Growth assumed to be 2.0 per cent for 2018 and beyond.

of 53 people was recognized for a remarkable response to the Williams Lake Wildfire in BC in the summer of 2017. Another team of 17 people, the Periodic Review Team, was recognized for creating a new tracking method for responding to regulatory requirements, which reduced the time required to do updates from days to minutes.

The names of all of our Points of Pride award recipients are listed on pages 31 and 32 of this report.

Innovating for tomorrow

Looking ahead, there are a number of projects that will reach key milestones in fiscal 2019 and help us take safety, efficiency and sustainability to the next level. Clearly, space-based ADS-B is one of them, but there are many more, ranging from our continued deployment of an integrated safety information system to new technologies and procedures that will directly affect service delivery and impact the environment. These changes and new technologies will bring real benefits, but they will not be without impact. We are sensitive to this, and it's why consultation is a priority – whether it is to gain insight from our employees as we implement systems, to understand the potential impact of noise around airports, or to better support efficient operations in the air and on the ground.

In closing, I would like to acknowledge changes to the Company's senior management team. Earlier this year, Charles Lapointe, Vice President, Technical Operations, retired after a distinguished 35-year career at



Winnipeg Control Tower

NAV CANADA. Following a review of our Technical Operations and Engineering functions, the two have been brought together as one department under Kim Troutman's leadership, better aligning our services to deliver and maintain highly reliable technology in support of our strategic mandate. In Operations, Ben Girard has been appointed to the role of Vice President, Operational Support, and Trevor Johnson to the role of Vice President, Air Traffic Service Delivery, to deliver on our strategic priorities for air traffic services.

I would also like to say what an honour and privilege it is to serve as the President and CEO of NAV CANADA. I am grateful to our Board, and to our customers and stakeholders, for their trust and support.

Finally, to each and every NAV CANADA employee, thank you for all you have done to help us build a solid foundation from which we will continue to innovate and keep our skies safe.

Sincerely,

A handwritten signature in black ink, appearing to read 'Neil R. Wilson'.

Neil R. Wilson
President and CEO

STRATEGIC PLAN UPDATE

Our Strategic Plan guides us as we build for the future and create value for all stakeholders. It is focused on six high-priority areas for our business. On the following pages, we discuss external factors affecting each of these areas and what we are doing about them.



SAFETY

World leading



PEOPLE

Best employer



SERVICE

Value focused



TECHNOLOGY

Modern platform



BRAND

Most respected



FINANCE AND GOVERNANCE

Stable and sustainable



*Amber Doiron Air Traffic Controller,
Halifax Tower*

“With an eye to the future, NAV CANADA is investing in infrastructure, enhancing recruitment and training to keep pace with service demands, and innovating when and where we can to improve safety and efficiency.”

Neil R. Wilson, President and CEO



SAFETY

INDUSTRY CONTEXT

There is no standing still when it comes to aviation safety. Our working environment changes constantly as new technology is implemented, customer operations are re-shaped, and domestic and international standards evolve.

Safety has always been the linchpin of our Company, connecting all parts of a complex air navigation system and integral to everything we do. Our commitment to safety is reflected in our safety record, which is among the best in the world.

Making a safe system safer

Our Corporate Safety Plan plays a vital role in ensuring that we continue to lead the way in safety. For fiscal 2019, we expanded the annual plan to include actions for mitigating our top operational safety risks, as identified through a robust risk assessment.

The top two were as follows:

- Miscommunication between air traffic services and student pilots, as a result of increased flight school activity and students who are just learning standard aviation phraseology and protocols
- An aircraft accident occurs with an unmanned air vehicle (UAV), also known as a drone, as use of UAVs for commercial and recreational purposes grows

Each of the top risks has an action plan and performance metrics that have become part of the 2019 Corporate Safety Plan and will be incorporated into the delivery of our services.

For student and general aviation pilots, we have a detailed action plan that includes promoting proper use of phraseology, sharing safety data with Transport Canada, developing a national NAV CANADA flight school agreement template and assessing options to reduce the complexity in managing the volume of student pilot training.



For UAVs, we are providing recommendations to Transport Canada as new regulations are being crafted and we sit on the Remotely Piloted Aircraft Systems panel of the International Civil Aviation Organization, working on the development of international regulatory standards and recommended practices. We are also supporting the development of an airspace situational awareness app that will help UAV operators identify where they can safely and legally fly their UAVs.

An SMS among the best

The NAV CANADA Safety Management System (SMS) is assessed annually to ensure our structures, policies and procedures remain relevant and keep pace with changes in the industry. We have strong working relationships with the aviation industry at various levels, domestically and internationally, and support forums that encourage the exchange of information, best practices and collaboration on shared issues. We also regularly participate in a benchmarking program that assesses the maturity of our SMS against an international standard: the Civil Air Navigation Services Organisation (CANSO) Standard of Excellence in Air Navigation Services – Safety. Our rating has consistently been among the highest worldwide, and the program offers important information that allows us to evaluate planning and assessment protocols, investigations,

and risk management initiatives, among other things, to identify where we can make further improvements to the system.

Optimizing human performance

Even with all the right systems and processes, it's people who are the builders of a safe air navigation system. That's why we prioritize our safety culture, communications and training, and look for ways to help our people perform at their best every day.

NAV CANADA is at the forefront of an industry initiative to optimize human performance at a time when new technologies and procedures are being introduced and the need for frontline staff to be adaptable and resilient has never been greater. We are participating with other members of CANSO in the development of a Human Performance Standard of Excellence aimed at helping ANSPs assess and improve their employees' ability to perform in this complex environment, which was presented at the CANSO

18.0

IFR-to-IFR losses of separation per million flight hours in fiscal 2018, compared to 21.0 in the year prior

99%

of IFR-to-IFR losses of separation were classified at the very lowest severity level



Global ATM Safety Conference in November 2018. Within the Company, we have conducted a gap analysis to identify what we are doing well and where we need to focus more attention.

Digging deeper into data

We are two years into a multi-year NAV CANADA Safety Information System (NC-SIS) project that will give us deeper insights into safety-related data and trends, and thereby drive improvement.

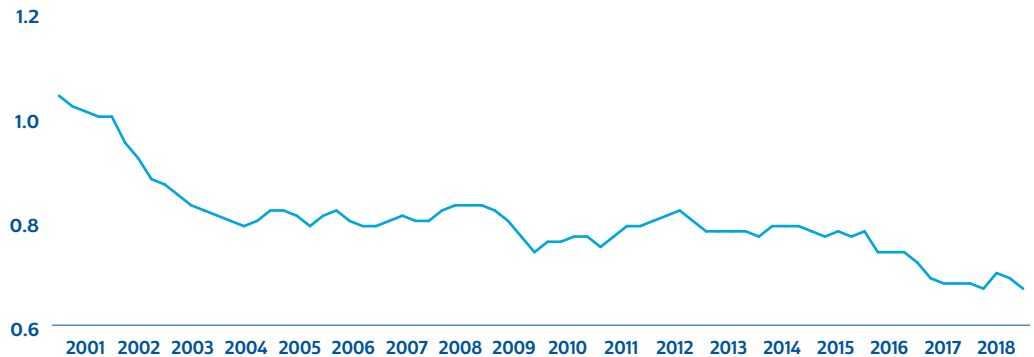
Phase I went live in 2017, replacing our mandatory aviation occurrence reporting system. Frontline air traffic controllers and specialists now have direct access to report on and review occurrences. With deployment of a safety risk management module in fiscal 2019, we will soon begin establishing analytics capabilities, which will enable us to mine data available from both the NC-SIS itself and existing sources.

IQA is well on its way

We are developing an Integrated Quality Assurance (IQA) program that will ensure the integrity of our safety management system, comply with Canadian Aviation Regulations' requirements and help us meet our Company's business obligations.

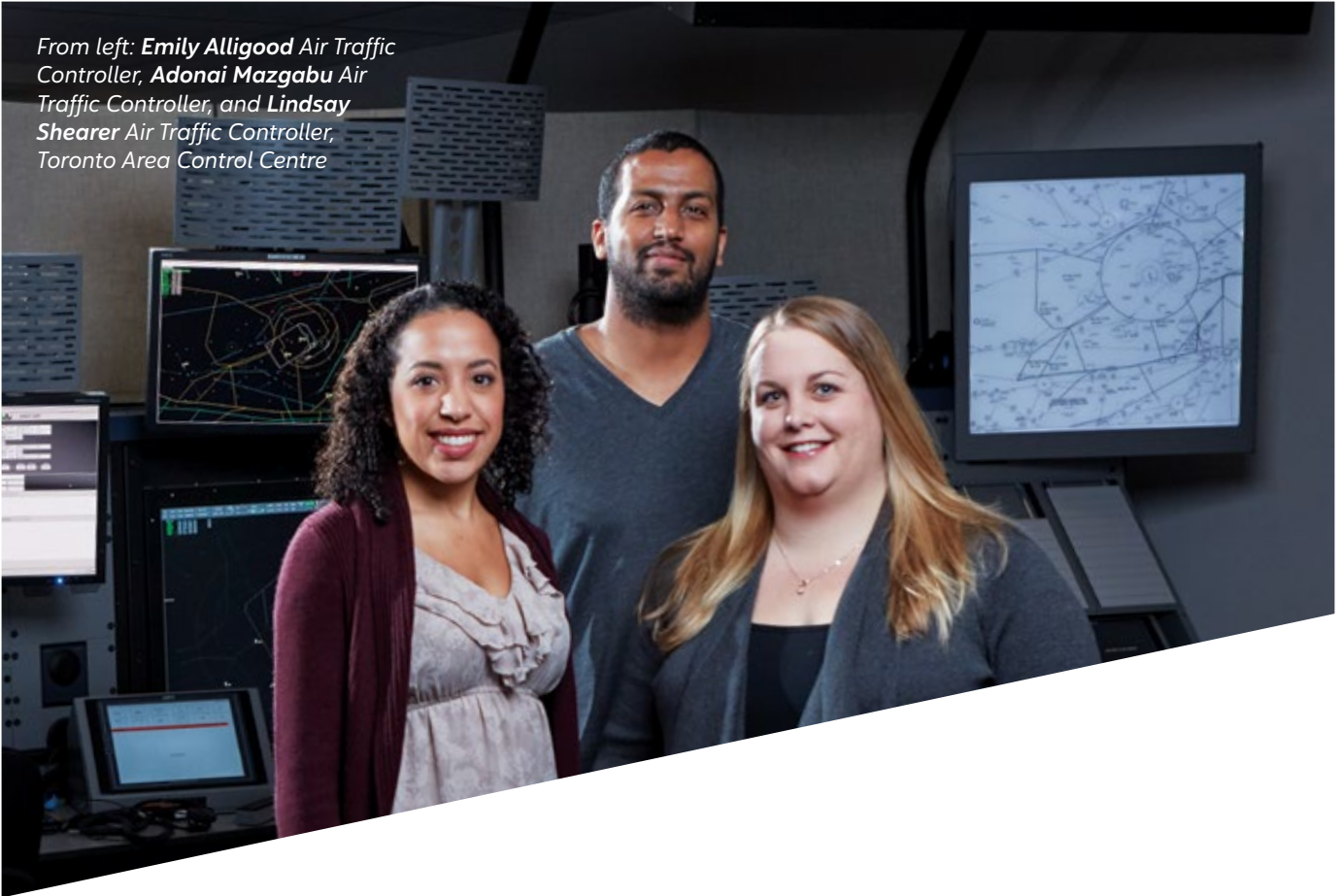
Development of the program began in May 2017 with input from employees in safety-critical roles in our Service Delivery and Safety and Quality departments. We are currently compiling process information from all our flight information regions to establish one master process network. We are also creating mechanisms for safeguarding the program's integrity through ongoing monitoring, measuring and improvement. Program implementation is scheduled for calendar year 2019.

RATE OF IFR-TO-IFR LOSSES OF SEPARATION* PER 100,000 MOVEMENTS (FIVE-YEAR MOVING AVERAGE)

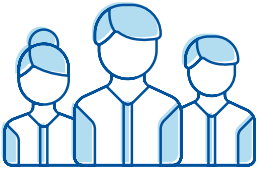


*IFR-to-IFR losses of separation measures aircraft flying under instrument flight rules where less than the authorized separation existed or in which the minimum was not assured.

From left: *Emily Alligood* Air Traffic Controller, *Adonai Mazgabau* Air Traffic Controller, and *Lindsay Shearer* Air Traffic Controller, Toronto Area Control Centre



PEOPLE



INDUSTRY CONTEXT

Our fast-paced, tech-driven industry seeks out the brightest and best people to help us operate the air navigation system safely and efficiently. Preparing for the capacity demands of tomorrow, while managing retirements and normal attrition, takes a strategic approach to recruiting, selecting, training and engaging employees.

NAV CANADA people strategies are focused on having the right number of employees, recruiting and developing the right talent, nurturing the right culture, embedding the right performance management approach, and delivering the right employee rewards.

Supporting success

To keep pace with growing service demands, we're making a concerted effort to improve recruitment and selection. Using our new recruitment brand, rolled out in fiscal 2018, we are visiting career fairs and airshows, schools and conferences, and supporting cross-country events and workshops to let people know that a career with NAV CANADA is anything but ordinary. We offer some of the most exciting careers in the

field of aviation, from providing air traffic services to delivering a wide variety of engineering, technical and professional services.

We piloted a new approach to candidate selection for air traffic services (ATS) staff that uses advanced simulation tests and problem-solving exercises to help us identify the very best candidates. New employees then undergo rigorous in-house training, which for ATS hires is

delivered in classrooms and simulators to reproduce the operational environment. To further support student progression, we've introduced programs such as IGNITE, an enhanced performance coaching model with tools for on-job instructors, and THRIVE, a peer-support program.

In fiscal 2018, 125 people completed the rigorous air traffic services training programs, achieving either an air traffic controller licence or flight service specialist certification.

Engaging conversations

While winning awards for our people programs shows that we're on the right track, being among the best places to work in Canada in the eyes of our employees is a top priority.

We were pleased to see employee engagement scores rise in our biennial employee engagement survey. Our overall score was 63 per cent and continues an upward trend since the survey was first implemented in 2004. In key indicator areas, 74 per cent of employees would not hesitate to recommend NAV CANADA to a friend seeking employment and 73 per cent have a strong commitment to staying with the Company.

To help build engagement and reinforce a strong performance culture, we've begun rolling out a new performance management strategy that includes more in-the-moment feedback and development support. Leaders are incorporating performance

conversations into their regular meetings with their direct reports and discussing their strengths and professional development needs. We are continuing to train leaders to have these types of conversations and will further develop our programming in fiscal 2019.

We've also introduced a Leader Success Profile (LSP) that explains what effective leadership looks like at NAV CANADA, and provides our current and future leaders with a clear path to reach their potential. A workbook helps employees create a development plan to build on their capabilities and share with their managers.

Modernizing employee communications tools

Upon learning from an internal communications audit that our employees wanted to be more connected with their colleagues across the Company, we decided to launch new digital tools that would facilitate more two-way conversations. Yammer, an enterprise social networking tool, was piloted late in the fiscal year, and will be rolled out across the country in 2019. Other tools like Stream, a corporate video-sharing service, and a digital newsletter are under review.

Embracing diversity and inclusion

Recognizing that embracing diversity and inclusion (D&I) is both the right thing to do and the smart thing to do from a business perspective, we doubled down on our D&I efforts in

125

newly licensed air traffic controllers and certified flight service specialists in fiscal 2018



Recognized as one of Canada's Top 100 Employers for the third year in a row

fiscal 2018. For us, D&I is about bringing all voices to the table, encouraging diversity of thought, and removing barriers that prevent people from participating fully at work.

Our employees have been on board from the beginning, willingly sharing their personal stories on our *We Are NAV CANADA* story portal, taking part in training on topics like checking your biases or understanding intergenerational issues, and welcoming groups of young women to our sites to inspire them to consider aviation as a career.

In addition to having a CEO D&I forum, we are piloting region-specific D&I forums, in which interested employees volunteer to be part of a team charged with leading activities at their site. The reception has been overwhelmingly positive. When we put out calls for participants, more people signed up than the forums could accommodate.

Our D&I efforts have already yielded results in terms of focusing recruitment efforts and ensuring that flight information regions have diversity recruiting plans. We were very pleased to see that D&I had the highest rating of all dimensions in our employee engagement survey, at 85 per cent.

Collective bargaining

With 87 per cent of our workforce represented by eight unions, collective bargaining is an important focus for us. In fiscal 2018, agreement renewals were negotiated with three of our unions and successfully ratified. These include the ACFO, the CFPA and IBEW Local 2228. An arbitration board decision provided for a fourth agreement with UNIFOR Local 1016.

The collective agreements with the four other unions (representing about 72 per cent of employees) will expire in the upcoming fiscal year. Our goal is to renew them in a timely fashion with our ongoing focus on meaningful terms and conditions of employment.

31%

of NAV CANADA senior management positions are held by women



Barry Lake Air Traffic Controller, Edmonton Area Control Centre



SERVICE



INDUSTRY CONTEXT

Traffic in the airspace we manage has grown in each of the past five years. To keep up with future predicted growth, our customers are expanding, innovating and working to increase efficiency. Ongoing communication and collaboration are more important than ever for advancing and enhancing service delivery together.

One of NAV CANADA's top priorities is continuous improvement in the delivery of air traffic services, leading to increased operational efficiency for our customers. We strive for short-term, iterative improvements and invest in disruptive technologies that will lead to long-term enhancements. Our employees do an exemplary job of both managing the day-to-day and supporting new projects.

Listening, learning, collaborating

Great service begins with understanding our customers' needs. Stakeholder relations and communication are a company priority as we look to our industry partners for feedback on our performance, insight into common issues, and opportunities to work together. As such, we are expanding our stakeholder outreach program to include more operators, major airports and national aviation associations. We

have started our fiscal 2019 program, which will include meetings with 33 stakeholder organizations, and will follow up with an online satisfaction survey early in 2019.

Our 2017 outreach and survey program encompassed 19 major airline customers. The results, which were published in 2018, were highly positive, with an overall satisfaction rating of 8.8 out of 10. Every airline rated us 8.0 or higher.

Shifting gears with the four majors

Our collaboration with Canada's four major airports (Calgary, Montreal, Toronto and Vancouver) is shifting to a higher gear, beginning with specific initiatives at Toronto Pearson International Airport.

The Greater Toronto Airports Authority (GTAA) – which manages Pearson – is committed to furthering the airport's development, with the goal of making it a global "mega hub" by 2035. We are preparing for the increased demand by aligning our technology development with the airport's efforts to enhance operational efficiencies through technological and procedural innovations.

New initiatives will optimize arrival and departure sequencing, and improve on-time arrivals and landing rates, helping to increase aircraft throughput. A collaborative decision-making initiative led by the GTAA will also enhance information sharing among all airport partners, enabling them to make decisions based on the most up-to-date data.

Partners in noise management

Other work with the GTAA is focused on noise management in the airspace surrounding Toronto Pearson.

In 2017, we launched a third-party review to identify options for reducing community exposure to aircraft noise. The reviewers assessed air traffic management practices, flight path design and aircraft operating practices and consulted with a range of concerned stakeholders – including residents – from across the Greater Toronto Area.

The final report was released in September 2017 and we accepted the majority of the 18 recommendations, which dealt with reducing noise at source, improving collaboration, quieter operations, new air traffic management and navigational technologies, and transparency on performance. Our response, entitled "Response to the Independent Toronto Airspace Noise Review," is posted on our website, and includes clear action plans and timelines.

Separately, we have started implementing recommendations from a significant joint NAV CANADA-GTAA public consultation. These include a summer weekend runway alternation trial, new nighttime approach and departure procedures, and the implementation of procedures that increase opportunities for continuous descent approaches.

A world first

In November 2018, NAV CANADA became the first ANSP in the world to implement a new ICAO standard – Established on RNP AR* (EoR) – at the Calgary International Airport. The result of a collaborative effort with our domestic and international industry partners, the new separation standard safely enables simultaneous arrivals on parallel runways, improves how traffic is integrated and increases use of quieter continuous descent operations. In addition, we estimate that the continuous descent operations associated with EoR will reduce greenhouse gas emissions by 2,500 metric tonnes in the first year alone.

8.8/10

major airline customer satisfaction score

99%+

equipment and systems availability in fiscal year 2018

*Required Navigation Performance (RNP) is a technology that combines highly accurate satellite-based positioning with an aircraft's modern Flight Management System to enable it to fly a precise, pre-programmed three-dimensional approach path.

All systems go, all the time

NAV CANADA had a stellar record of greater than 99 per cent equipment and systems availability this past fiscal year. For a company like ours, operating on a 24/7 basis with equipment installed on mountaintops and in some of the country's most remote regions, this is a significant achievement.

Regular maintenance on NAVAIDs, and weather and communications systems, is essential to ensure that every piece of equipment is performing reliably and generating precise data. Beyond that, we attribute our outstanding record to continuous system monitoring, good life cycle management of our assets, rigorous planning for failure so we have backup equipment and systems in place and ready to go when needed, and a remarkable team of Engineering and Technical Operations people who work – often in difficult conditions – to keep everything running safely and smoothly.

ICWP goes live in Halifax

In 2018, the first phase of the Integrated Controller Working Position (ICWP) went into operational use in our Halifax Tower. ICWP merges electronic strips with flight plans and data from applications running on up to four separate monitors onto a single interactive surveillance display – making it easier for controllers to manage the growing volumes of

air traffic. With ICWP, controllers can easily adapt the integrated flight data elements on their situational display to bring up just the information they want presented to them. A prime example of how NAV CANADA develops technology, our Operations and Engineering personnel worked together to build the ICWP product and interface, ensuring that it's as user-friendly as it is progressive. ICWP will be rolled out to more sites throughout fiscal 2019.

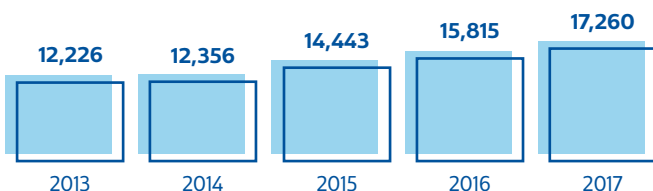
Infrastructure renewal

Investing in our infrastructure continues as another facet of making sure we provide our customers with the best service possible, and our employees with a modern workplace. In fiscal 2018, we completed construction on new replacement towers in Oshawa, Ontario, and Pitt Meadows, British Columbia. Several other facilities across the country also had refurbishments completed to tower and flight service station cabs.

We announced the relocation of our Ottawa-based head office to a site nearby. Following a full renovation of the building, the Company will take possession in spring 2021 to prepare for occupancy, incorporating workspace best practices and employee feedback into the interior design.

Other major technology modernization projects continued through the year and many will extend into the next fiscal year and beyond. The Weather Systems Upgrade program, a \$16 million program approved in 2017, is ongoing and will continue through to 2021 with the installation of precipitation gauges, barometers, laser ceilometers, weather cameras and other work that ensures the accuracy of critical weather information.

POLAR FLIGHTS BY CALENDAR YEAR





TECHNOLOGY



From the beginning, NAV CANADA has differentiated itself through its technology. We have repeatedly shown that we understand what's needed to improve air traffic management, or to run our business more efficiently, and have subsequently developed or invested in the necessary technology.

INDUSTRY CONTEXT

Technological advances are revolutionizing the aviation industry, opening up unprecedented opportunities to improve safety, efficiency, capacity, predictability and environmental impact. Other technologies support cloud and mobile computing, facilitate collaboration, enable advanced data analytics, and more, while lowering costs.

Innovating for tomorrow

There is no question that Aireon, our joint venture, is the lead story when it comes to fiscal 2018 technology highlights. Aireon will expand air traffic surveillance to the entire planet, using automatic dependent surveillance–broadcast (ADS–B) receivers installed on a constellation of 66 Iridium NEXT satellites.

Space-based ADS–B will significantly enhance safety: for the first time, air traffic will be visible where it hasn't

been before in the 70 per cent of the world that is not covered by ground-based systems. Controllers will know the precise altitude, speed and direction of ADS–B equipped aircraft at all times in relation to other traffic, ensuring we meet and exceed target safety levels.

It will also save time, money and fuel, because it will enable our industry to reduce separation between aircraft, without compromising safety, and

\$2.4 billion

invested in technology and infrastructure over the past 20 years

NAVCANatm tools are deployed at over

100

sites worldwide on

1,600

active controller workstations

provide more direct and efficient routes. It's estimated that space-based ADS-B could reduce greenhouse gas emissions by more than 14 million metric tonnes over a 10-year period.

NAV CANADA controllers in Edmonton FIR and in Gander FIR will be among the first in the world to use the technology, starting with domestic airspace for both regions, and followed by operational trials in the North Atlantic.

All hands on deck

Multiple NAV CANADA teams have been busily updating our air traffic management systems, and testing and validating their ability to use the ADS-B flight data, as satellites have been launched and integrated into the Iridium constellation.

A new system called Fusion will merge all available forms of surveillance data, including Aireon data, to provide a more accurate aircraft position and deliver the information directly to the controller's display screen. Fusion is in full operational use in the Winnipeg and Edmonton FIRs, and deployment is underway in the Gander FIR.

Advanced satellite voice communications, or SATVOICE, is another innovative technology developed by NAV CANADA and being implemented at all our area control centres (ACC). Across the global air navigation system, the most prevalent form of communication between aircraft and air traffic control is currently controller-pilot datalink communications, essentially text messages. SATVOICE will be an additional tool for direct voice

communications when messages need to be received right away. To date, SATVOICE has been successfully deployed at both the Edmonton ACC and the Gander ACC.

Balancing capacity and demand

To support improved capacity and throughput, two new technologies are being developed for implementation at Canada's four major airports.

ONTIME is a gate-to-gate air traffic flow management tool designed to balance airport and airspace demand and capacity, reducing congestion and increasing air traffic management performance. Ongoing evaluations are being conducted at Toronto Pearson with our internal team, and implementation is scheduled for 2019.

Another technology, AMAN or Arrival Manager, is a scheduling and sequencing system that offers flow and arrival management in terminal airspace, helping to minimize delays and maximize runway usage. The new system is being used in Toronto, and Vancouver is targeted for a spring implementation. The new AMAN system is anticipated to save customers \$20 million in fuel over five years once implemented at the four majors.

Becoming a cloud-first company

We've launched a multi-year initiative to shift many of our internal business systems to cloud-based solutions to ensure a modern, effective technology platform that gives our employees the tools they need to excel in their jobs and improves the overall value of our IT investments.

Office 365 and the Windows 10 operating system were rolled out in fiscal 2018, introducing anytime, anywhere access to email and work files as well as new collaborative tools such as Skype for Business. We're also implementing a new enterprise resource planning system from Workday that will improve people and financial management, and updates to Maximo, a critical business application used to manage operational equipment and facility maintenance activities.

NAVCANatm technology around the world

Our strong track record of technology development enables us to sell many of our solutions to other air navigation service providers under the NAVCANatm brand. These enterprise-wide, fully integrated air traffic management tools include electronic flight strips, surveillance displays, airfield lighting and control, and information displays. These products are used in air traffic control towers, area control centres and terminal operations, and for apron management.



In 2018, we completed the deployment of NAV CANADA EXCDS technology (electronic integrated flight data systems) in the London Terminal Control operation of NATS, the UK-based ANSP. The culmination of nearly three years of collaboration between NATS and NAV CANADA, this was a complex undertaking given that the terminal handles traffic from all airports in the greater London area, which is one of the busiest airspaces in the world.

CHIP earns honours

Our Common Hardware Integration Platform (CHIP) deployment earned international honours, winning a Jane's ATC Award in the service provision category for innovative contributions to safe and efficient airspace. The CHIP platform was fully deployed in 2017 and has already generated significant benefits, by consolidating and standardizing the hosting platform for many of our ATM systems and allowing for innovative features to be added.

NAV CANADA was recognized by NATS, of the UK, as a D-SESAR Supplier of the Year for our work on the EXCDS London Terminal Control project. Jason Shadbolt, Data Systems Coordinator, Moncton ACC, was also recognized for his outstanding contributions to the deployment of our EXCDS technology in London Terminal Control airspace.

***Dwight Swimmer**
Installation Technologist,
Edmonton Engineering
Workcentre*

Canada Day 2018 sponsored
by NAV CANADA at the Canada
Aviation and Space Museum



BRAND



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. We strive to be both a good neighbour and a good corporate citizen, and encourage and support our employees in their community efforts.

INDUSTRY CONTEXT

To earn and maintain public trust, companies today must demonstrate that they operate to high ethical standards and are contributing to a better tomorrow through their day-to-day work and their above-and-beyond efforts to make our communities and planet more sustainable.

Helping hands in our communities

For more than 20 years, our employees' volunteer efforts have been extraordinary, helping to support causes that impact community well-being, health and the environment, and rallying to assist those in need of disaster relief. Together, employee and company charitable contributions have supported about 300 registered charities and non-profit community organizations annually.

Each year, our people find inventive ways to raise funds for community causes, including an annual employee talent show called NAV CAN Jam; charity golf and hockey tournaments in Gander, Montreal, Toronto, Ottawa, Edmonton and Vancouver; walks in support of the homeless; runs and rides for cancer and other diseases; and campaigns to raise funds for hospitals and other care and research foundations.

We also use our unique talents and resources to help out where we can. Recently, we protected airspace so that environmental agencies could track the movements of endangered whales, and we delivered gently used hockey gear to youth in northern communities during our scheduled northern flight inspections.

The organizations receiving the most support from us in fiscal 2018 were the Ottawa Hospital Foundation, Hope Air, Children’s Hospital of Eastern Ontario, Shock Trauma Rescue Society and Children’s Wish Foundation.

NAV CANADA Cares

To amplify our community impact, we introduced an updated charitable contributions program in early fiscal 2019 that offers our employees more options to support the community groups and events they care about the most. The updated program has four separate funds:

- **Giving Fund** provides contributions to organizations where our employees volunteer 10 or more hours, or for which they participate in a fundraising event.
- **Fundraising Fund** matches funds raised by employees for registered charities, non-profits or disaster relief.
- **Supporting Fund** enables employees to apply for a donation to a registered charity or non-profit active in NAV CANADA communities of all sizes.

- **Partnering Fund** is awarded annually to one of our flight information regions to support a charitable partnership.

Canada Day at the Aviation and Space Museum

We had an extra reason to celebrate Canada Day in 2018: NAV CANADA was the presenting sponsor of events at the Canada Aviation and Space Museum. Signs, posters and videos describing our work and showing aircraft over Canada were on display in the museum to the more than 7,000 visitors. Outside, we gave tours of our Dash 8 flight inspection aircraft to enthusiasts of all ages. It was a great way to tell our story, and to create awareness about our role in maintaining the safety and efficiency of Canada’s civil air navigation system.

Our grassroots are growing

Our Grassroots Initiatives Sustainability Funding program provides funding for employee-driven environmental initiatives. Launched in 2017, we have now paid out about \$75,000 for more than 30 projects, ranging from community gardens and greenhouses, to beehives and rainwater collection systems.

One such project is in La Ronge, Saskatchewan, where an employee team built and continues to nurture a community garden. A total of 27 garden plots were created for the community and another 12 are

\$1 million+

contributed to community causes in fiscal 2018*



NAV CANADA was recognized as a Caring Company by Imagine Canada for our excellence and leadership in community investment

*Estimated contribution based on total company donations, funds raised by employees, and volunteer time and administration.

In fiscal 2018, the Company released its first Corporate Social Responsibility (CSR) Report, communicating on topics such as safety and social impact, and initiatives to reduce the environmental impact of our operations and those of our customers. A CSR highlights report will be released early in 2019.

maintained by La Ronge flight service specialists. Produce from the NAV CANADA plots was donated to Scattered Site Outreach Program in time for Thanksgiving.

Beehive bonanza

At the Oshawa Control Tower, we were pleased to present an \$8,000 donation to Hope Air, a charitable organization that has been strongly supported by NAV CANADA employees over the years. The charity provides free flights to families in need: those who require air transportation to get to crucial medical care at hospitals located hundreds of kilometres from their homes.

What was extra special about this donation was that all the money raised was the result of a NAV CANADA Grassroots sustainability initiative: Bee-YOO-ty Honey. Friends from

the aviation community bid on jars of honey produced at a beehive created by an employee team in 2017 to support a healthy local bee population. Some of the jars sold for as high as \$500 a piece.

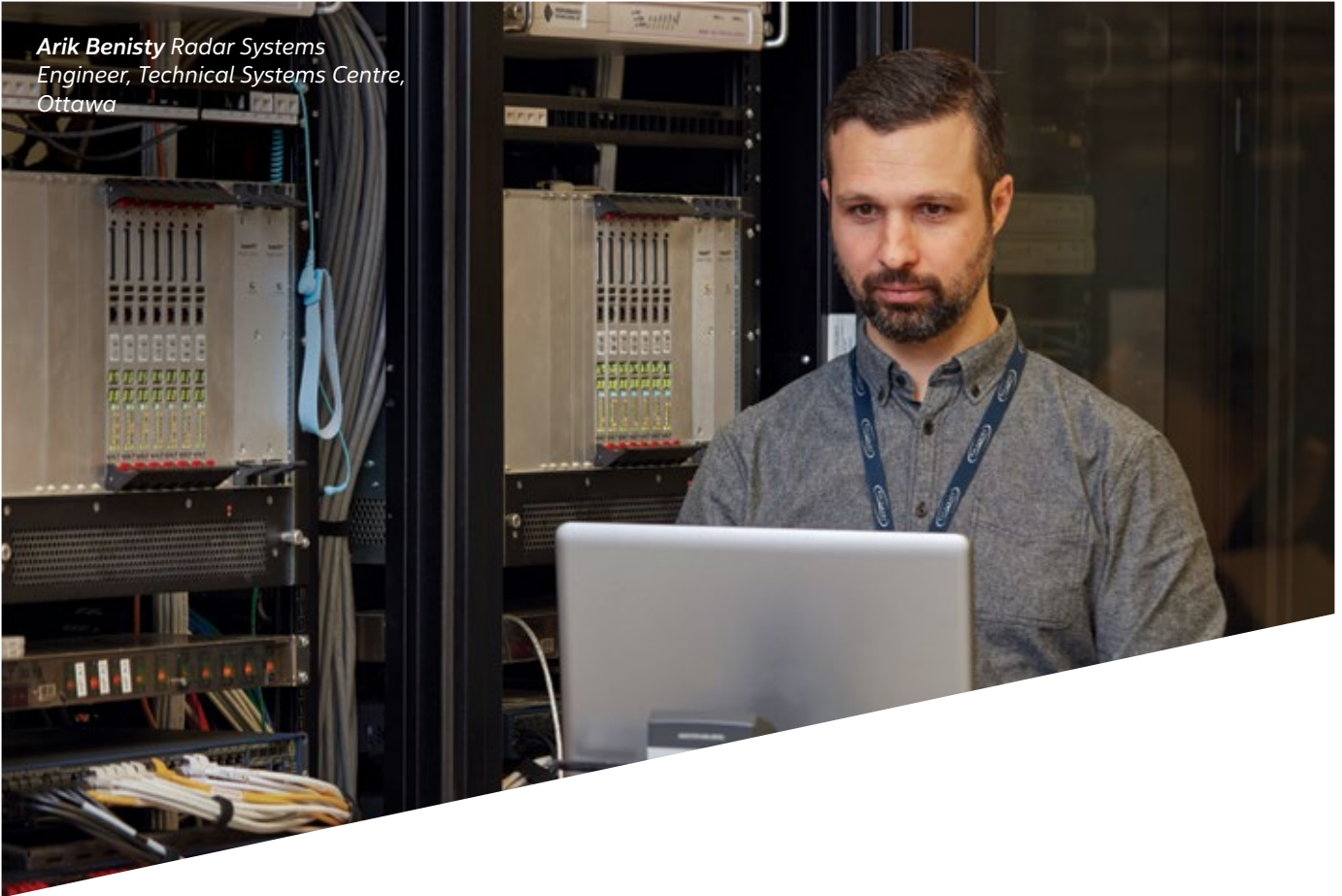
Inspiring young leaders

We held the inaugural Explore Aviation Summer Camp at the NAV CENTRE in Cornwall in July, inviting 30 young women from across Canada to take part in a hands-on, week-long learning adventure as a way of inspiring young leaders and showcasing career possibilities within NAV CANADA. Given the success of the camp, we plan to host two Explore Aviation camps in the summer of 2019, one each for male and female students going into grade 10.

We hope to continue to inspire other career seekers with our new recruitment brand that was rolled out in fiscal 2018: *Leave Ordinary Behind*. Using surveys, interviews and focus groups, we asked our employees to help us define what makes NAV CANADA unique, and their answers were the inspiration for our new brand and campaigns, which emphasize doing exciting work that matters, being part of a high-achieving team, and finding personal and professional fulfillment.



Arik Benisty Radar Systems
Engineer, Technical Systems Centre,
Ottawa



FINANCE AND GOVERNANCE



INDUSTRY CONTEXT

Financial strategies and governance practices that balance the interests of key stakeholders, and comply with applicable laws and standards, are essential for running a strong business and building a sustainable company.

Financial highlights

Fiscal 2018 marked the fifth consecutive year of air traffic growth, allowing us to continue to invest in our people, technology and infrastructure and to return value to our customers through a further base rate reduction.

The Company's revenue was \$1,415 million, compared to \$1,291 million in fiscal 2017, mainly due to a 5.1 per cent growth in air traffic volumes and a

We manage our business in a sound and cost-effective way aimed at maintaining air navigation service charges among the lowest of major ANSPs worldwide, and ensuring over the long term that the growth in our operating costs does not exceed the growth in traffic.

\$60 million one-time refund of customer service charges revenue in fiscal 2017. Operating expenses were \$1,396 million as compared to \$1,330 million in fiscal 2017, with the increase largely attributable to higher compensation levels and overtime costs.

At year end, our rate stabilization account balance of \$124 million was in line with expected results and reflected a planned reduction of \$10 million from August 31, 2017.

Average

0.4%

reduction in customer service charges, effectively continuing the one-year temporary rate reduction implemented on September 1, 2017

Completed a successful

30-year bond issue

for \$275 million

The Company also reduced debt by \$100 million, ending the fiscal year with a cash balance of \$38 million.

On August 7, 2018, we issued an announcement detailing the implementation of revised customer service charges for fiscal 2019. Strong traffic results in fiscal 2018, along with traffic growth projections for fiscal 2019, enabled us to implement revised customer service charges, whereby existing base rates decreased by an average of 0.4 per cent on September 1, 2018. This effectively continues the one-year temporary rate reduction implemented on September 1, 2017.

Successful bond issue

We were pleased to have our credit ratings reaffirmed in 2018, recognizing the Company's overall financial strength as well as the strength of our rate stabilization account. This allowed us to complete a successful 30-year

bond issue for \$275 million at the end of March. We used the proceeds from this issue to partially retire the general obligation notes that matured in April. The remainder of the maturity was repaid with available cash and by drawing on our syndicated credit facility.

Credit ratings

The Company's debt obligations have been assigned the following ratings and outlooks:

AGENCY	SENIOR DEBT	GENERAL OBLIGATION	OUTLOOK
DBRS Limited	AA	AA (low)	Stable
Moody's Investors Service	Aa2	Aa2	Stable
Standard & Poor's	AA	AA-	Stable

Responsible investing

Given the long-term investment horizon of our pension plan, the NAV CANADA Pension Committee drafted a Responsible Investing Policy which emphasizes the importance of environmental, social and governance (ESG) factors in the plan's investment decision-making processes. The policy is premised on the belief that ESG factors can have a material impact on long-term risk and return outcomes and should therefore be evaluated alongside other risk factors. The policy will be submitted for Board approval in January 2019.



Kim George Air Traffic Controller, Gander Area Control Centre

Stronger together: collaborating on cyber security

NAV CANADA's cyber security practices have kept pace with the rising risk level and complexity of cyber threats. We have a formal governance program at the senior-most levels of the organization, and continually invest in technology on both the air traffic and business sides of our Company to strengthen endpoint protection, access management and cyber security monitoring.

We're striving to entrench cyber security in our culture in much the same way we've done with safety. Activities include annual mandatory computer-based training; phishing simulation testing to assess vigilance and awareness; free endpoint cyber security software for home use; and annual security training for our software developers.

Our annual NAV CANADA Cyber Summit has evolved from an employee-only event in 2015 to an industry event in 2018 that was jointly organized with the Ottawa International Airport Authority. The two-day conference attracted more than 200 participants, with people from airlines, airports, airport authorities, CATSA and aviation companies, as well as non-aviation representatives from health service agencies and local businesses. Government and regulatory

agencies, the RCMP, and security experts from various sectors were on hand as presenters and participants. The common theme was that we will be much stronger if we face cyber risks together, learning from one another and becoming more resilient as an industry.

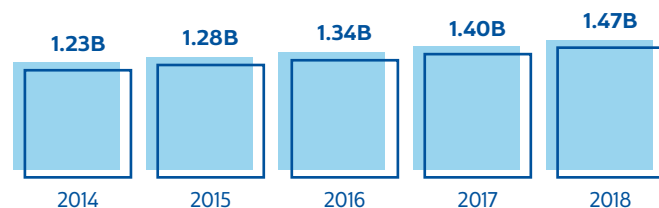
Eye on the future

We've created a new group, Corporate Planning and Performance, to oversee our corporate strategic planning, performance measurement and analysis, workforce planning and analytics, and change management activities. High-priority initiatives for the next year will include workforce planning and analytics to meet future service needs.

In case of emergency

In fiscal 2018, we implemented a new emergency notification system (ENS) that delivers urgent messages to all employees by text, phone and email, as part of an effort to improve safety, security, protection of critical assets and the restoration of critical services. Our first national test of the system in July achieved a 99 per cent delivery rate, with some employees receiving messages within 10 seconds. We plan to run national testing twice a year and local testing at least once a year.

AIR TRAFFIC ACTIVITY IN WEIGHTED CHARGING UNITS



POINTS OF PRIDE AWARD RECIPIENTS

Each year, we recognize and celebrate NAV CANADA employees who have done something extra special to help us achieve our goals through our Chairman's Awards for Employee Excellence and President's Awards for Outstanding Achievement. Our 2018 award winners are listed below. For more information about their achievements, please see our 2018 Corporate Social Responsibility Highlights report, which is posted on our website.

CHAIRMAN'S AWARD FOR EMPLOYEE EXCELLENCE

The Chairman's Award for Employee Excellence recognizes those employees whose efforts have made a truly significant difference in their workplaces or in their communities.

Safety

Individual Award
Stephen Newman

Team Award
Benjamin Kotrla
Eric Muench

People

Individual Award
Mario Noël

Customer Service

Individual Award
Dennis Grantham

Individual Award
Trent Stenmark

Team Award
Carlos Arranz
Benoît Gosselin
Harmony Mac Lellan
Bernie Ramar

Team Award
Jeff De Haan
Garnet Miller
Michel Tremblay

Performance

Individual Award
Mike Horner

Individual Award
Melissa Power

Individual Award
Lyne Théorêt

Team Award

Dean Baker
Neil Collins
Steve Humphries
Richard Kendall
Julee O'Keefe

Resource Management

Team Award
Peter Bradley
Ian Lawson
Ying (Audrey) Zou

Technology

Team Award
Keith Bourdon
Elie Francis
Todor Gurov
Bill Langdon
George Popadich

Community Service

Individual Award
Keith Blimkie

Individual Award
Scott Turner

CHAIRMAN'S AWARD FOR OUTSTANDING ACHIEVEMENT

Rosemarie D'Amico,
Director, Corporate Services & Assistant Corporate Secretary, Head Office, retired

PRESIDENT'S AWARD FOR OUTSTANDING ACHIEVEMENT

The President's Award for Outstanding Achievement recognizes those individuals or teams of employees who have made an exceptional contribution to NAV CANADA through their dedication to excellence.

Individual Award

Anik Bertrand



Periodic Review Team – members include:

Operations

Gheorghe Adamache
Pascal Bilodeau
Jake (Jacqueline) Blair
Andrea Cocks
Michael Cooke
Amanda Devine
Caroline Doucet
Greg Evans
Jim Ferrier
Joe Grubestic
Amanda Hicks
Reuben J. Jonker
Sylvain Larue
Sean McCarthy
Tejal Patel
Judy Roe
Susan Welch

Williams Lake Wildfire Response Team – members include:

Engineering

Matt Collishaw
Brent Dowding
Kent Fulton
Brian Johnston
Pawel Kisielewski
Doug Ramsden
Chris Stauble

Human Resources

Lisa Nowostawski
Jennifer Savard

Operations

Ria Yasmin Ali
Mary-Ann Astoria
Bryan Bourdon

Don Boyd
Fraser Brandwood
Kevin Brewster
Greg Dansereau
Chris Ford
Fred Gagnon
Marie Gerroir
Brittany Impey
Clyde Jacobs
Jackie Keatinge
Pascal Larochelle
Darrin Linders
Guylaine Marshall
Joel Martin
Chris Marwood
Neal Matoga
Bobby McKay
Trevor Moore
Sandy Nightingale
Inderjit Rai
Paul Sagodi
Antonio Scardillo
Christina Schmidt
Erik Seifert
Gillian Simpson
Kelly Smith
Charmayne Taylor
Paul B. Thornley
Dawn Toth
Louise Wakabayashi
Michelle Webster

Technical Operations

Charles Chanthaphasouk
Tom Esterle
Kevin Fransen
Kevin Gooden
Jason Heron
Faraz Khan
May Lam
Vic Mundi
Chris Orosz

CORPORATE GOVERNANCE

NAV CANADA represents a unique consensus among the major stakeholders in Canada’s air navigation system – the Government of Canada, commercial air carriers, general aviation and our unionized employees. Our corporate governance structure and practices reflect this consensus, with a board of directors that operates independently of management and is composed of representatives of each stakeholder group.

BOARD OF DIRECTORS STRUCTURE AND COMPOSITION

The Company’s overall approach to corporate governance follows best practices and keeps pace with evolving requirements, including those under applicable securities legislation.

The Board is comprised of 15 directors, all of whom are required to be Canadian citizens. One director (the President and CEO) is an employee of the Company. All other directors are “independent” directors as that term is defined in National Instrument 52-110 *Audit Committees* (NI 52-110).

NAV CANADA represents a unique consensus among the major stakeholders in the ANS – the Government of Canada, commercial air carriers, general aviation and our unionized employees. Our governance structure reflects this consensus. All four of these major stakeholders are members of the Company together with a Director member (collectively, the Members).

The result is a board of directors where all stakeholder interests are represented but none dominates. The Board’s committees are similarly constituted except for the Human Resources & Compensation Committee.

The five Members elect the directors as follows:

MEMBER	NUMBER OF DIRECTORS
Government of Canada	3
Commercial Air Carriers	4
General Aviation	1
Labour Unions	2
Directors	4

The Board discharges its responsibilities directly and through committees. The Board holds five scheduled meetings each year and unscheduled meetings are held from time to time as required.

Our By-Laws disqualify from directorship any person elected to the Parliament of Canada or any provincial legislature or territorial legislative assembly; federal, provincial or territorial government employees; and directors or employees of an entity that has a material interest as a supplier, client or customer of the ANS. Every director and officer of the Company is required to sign and abide by our *Code of Conduct and Conflict of Interest Guidelines for Directors and Officers* (Code of Conduct).

DIRECTORS

Directors are elected for terms not exceeding three years, with terms expiring at the Company's annual general meeting. No director, other than the President and CEO, may serve as a director for more than 12 years in total. Set out below is information on the current directors, including their Committee membership and meeting attendance records for fiscal 2018.



Marc Courtois

Director; Chair of the Board
Quebec, Canada

Elected by: Board of Directors
Director since: February 16, 2012
Current term expires: 2021

Meeting Attendance/Committee Membership

Board	9/9
Audit & Finance Committee*	4/5
Corporate Governance Committee	4/4
Customer Service Charges Committee*	3/3
Human Resources & Compensation Committee*	8/8
Pension Committee*	5/5
Safety Committee	4/4

*Ex officio member

Principal Occupation Held in Last Five Years

Corporate Director



Mary-Ann Bell

Director; Chair of the Safety Committee*
Quebec, Canada

Elected by: Government of Canada
Director since: May 30, 2014
Current term expires: 2020

*Ms. Bell became the Chair of the Safety Committee on January 10, 2018.

Meeting Attendance/Committee Membership

Board	9/9
Customer Service Charges Committee	3/3
Human Resources & Compensation Committee	8/8
Safety Committee	4/4

Principal Occupation Held in Last Five Years

Corporate Director. From 2009 to 2014, Senior Vice President, Quebec and Ontario, Bell Aliant Regional Communications.



Edward M. Barrett

Director; Chair of the Customer Service Charges Committee
New Brunswick, Canada

Elected by: Board of Directors
Director since: February 7, 2013
Current term expires: 2019

Meeting Attendance/Committee Membership

Board	9/9
Corporate Governance Committee	4/4
Customer Service Charges Committee	3/3
Human Resources & Compensation Committee	8/8
Pension Committee	5/5

Principal Occupation Held in Last Five Years

Co-CEO and Chair of Barrett Corporation



Jean Coté

Director
Quebec, Canada

Elected by: Commercial Air Carriers
Director since: January 14, 2015
Current term expires: 2021

Meeting Attendance/Committee Membership

Board	9/9
Audit & Finance Committee*	5/5
Human Resources & Compensation Committee*	5/5
Pension Committee	5/5

*Mr. Coté was a member of the Audit & Finance Committee until January 10, 2018, at which time he joined the Human Resources & Compensation Committee.

Principal Occupation Held in Last Five Years

Corporate Director. Prior to January 2015, Vice President, Commercial Operations at Air Transat.

**Robert J. Davis**

Director

Ontario, Canada

Elected by: Commercial Air Carriers**Director since:** April 8, 2009**Current term expires:** 2021**Meeting Attendance/Committee Membership**

Board	9/9
Audit & Finance Committee	5/5
Safety Committee*	4/4

Mr. Davis was the Chair of the Safety Committee until January 10, 2018.*Principal Occupation Held in Last Five Years**

Corporate Director

**Michael DiLollo**

Director

Ontario, Canada

Elected by: Commercial Air Carriers**Director since:** February 7, 2013**Current term expires:** 2019**Meeting Attendance/Committee Membership**

Board	9/9
Audit & Finance Committee	5/5
Safety Committee	4/4

Principal Occupation Held in Last Five Years

Senior Director, Investment, Specialty Finance, Fixed Income at Caisse de dépôt et placement du Québec. Chief Executive Officer of Caribbean Airlines from May 21, 2014 until October 28, 2015.

**Bonnie DuPont**

Director; Chair of the Human Resources & Compensation Committee

Alberta, Canada

Elected by: Board of Directors**Director since:** February 7, 2013**Current term expires:** 2019**Meeting Attendance/Committee Membership**

Board	9/9
Corporate Governance Committee	4/4
Human Resources & Compensation Committee	8/8

Principal Occupation Held in Last Five Years

Corporate Director

**Linda Hohol**

Director; Chair of the Audit & Finance Committee

Alberta, Canada

Elected by: Board of Directors**Director since:** February 16, 2012**Current term expires:** 2021**Meeting Attendance/Committee Membership**

Board	9/9
Audit & Finance Committee	5/5
Customer Service Charges Committee	3/3
Pension Committee	5/5

Principal Occupation Held in Last Five Years

Corporate Director

**Robert Reid**

Director; Chair of the Corporate Governance Committee

Ontario, Canada

Elected by: Commercial Air Carriers**Director since:** April 8, 2009**Current term expires:** 2021

Meeting Attendance/Committee Membership	
Board	9/9
Corporate Governance Committee	4/4
Human Resources & Compensation Committee	8/8

Principal Occupation Held in Last Five Years

Corporate Director

**Michelle Savoy**

Director; Chair of the Pension Committee

Ontario, Canada

Elected by: Government of Canada**Director since:** December 15, 2015**Current term expires:** 2021

Meeting Attendance/Committee Membership	
Board	9/9
Corporate Governance Committee	4/4
Pension Committee	5/5

Principal Occupation Held in Last Five Years

Corporate Director

**Umar Sheikh**

Director

British Columbia, Canada

Elected by: Labour Unions**Director since:** January 13, 2016**Current term expires:** 2019

Meeting Attendance/Committee Membership	
Board	9/9
Audit & Finance Committee	5/5
Safety Committee	4/4

Principal Occupation Held in Last Five Years

Chief Executive Officer of the British Columbia Nurses' Union.

**Scott Sweatman**

Director

British Columbia, Canada

Elected by: Labour Unions**Director since:** April 8, 2010**Current term expires:** 2019

Meeting Attendance/Committee Membership	
Board	7/9
Corporate Governance Committee	4/4
Customer Service Charges Committee	3/3
Pension Committee	5/5

Principal Occupation Held in Last Five Years

Partner at Dentons Canada LLP.

**Louise Tardif**

Director

Ontario, Canada

Elected by: Government of Canada**Director since:** April 29, 2016**Current term expires:** 2019**David Weger**

Director

Saskatchewan, Canada

Elected by: General Aviation**Director since:** January 10, 2018**Current term expires:** 2021**Meeting Attendance/Committee Membership**

Board	9/9
Audit & Finance Committee	5/5
Pension Committee	5/5

Principal Occupation Held in Last Five Years

Corporate Director

Meeting Attendance/Committee Membership

Board*	7/7
Audit & Finance Committee*	2/2
Customer Service Charges Committee*	2/2

*Mr. Weger became a member of the Board, the Audit & Finance Committee and the Customer Service Charges Committee on January 10, 2018.

Principal Occupation Held in Last Five Years

Corporate Director. From January 2011 to May 1, 2018, Senior Director, Administration Services at Nutrien Ltd. (formerly Potash Corporation of Saskatchewan Inc.).

**Neil R. Wilson**

Director

Ontario, Canada

Director since: January 1, 2016**Current term expires:** N/A**Meeting Attendance/Committee Membership**

Board	9/9
Pension Committee	5/5
Safety Committee	4/4

Principal Occupation Held in Last Five Years

President and CEO of the Company from January 1, 2016. From December 1, 2012 to December 31, 2015, Executive Vice President, Administration and General Counsel of the Company.

GENDER DIVERSITY

The Company and the Board recognize the importance of diversity, including gender, in the selection of directors and executive officers, and believe that diversity enhances corporate and board discussion, viewpoints and, ultimately, performance.

While there are no targets in place regarding the representation of women on the Board or when hiring executive officers, the Company has an *Employment Equity and Diversity Policy* which applies when hiring and promoting executive officers. This policy sets out an objective that the Company's hiring practices are to be as much a reflection of the Canadian labour market as possible, while improving designated group representation within the workplace and supporting diversity in its business practices.

Two-thirds (67 per cent) of the Board's members are elected by the Company's stakeholder members, and while the Board cannot dictate requirements to those

stakeholders, the Corporate Governance Committee of the Board regularly examines the experience, skills and attributes, including gender, required for filling Board vacancies, and communicates these requirements to our stakeholder members for their consideration when electing directors. The Corporate Governance Committee similarly identifies desirable competencies and attributes, including gender, while ensuring an appropriate mix of skills and experience with respect to those directors elected by the Board.

Currently, one-third (33 per cent) of the Board members are women, with 100 per cent of the directors elected by the Government of Canada, and 50 per cent of the Board-elected directors, being women. There are also three women (23 per cent) on the Executive Management Committee of the Company. Within the senior management group, which by definition includes individuals in policy-making functions, 31 per cent are women.



From left: **Michael Mammone** Senior Radar Systems Engineer; **Olivia Orwin** Manager, New Surveillance Technologies; **Afiya Kassim** Software Design and Development Specialist, Technical Systems Centre, Ottawa

BOARD COMMITTEES

Our Board has six committees, as described below, which do not take action or make decisions on behalf of the Board unless specifically mandated to do so.

Audit & Finance Committee

MANDATE	MEETINGS HELD IN FISCAL YEAR	CURRENT MEMBERSHIP
Responsible for assisting the Board in fulfilling its oversight responsibilities relating to the Company's financial reporting and disclosure obligations, including review of annual and interim financial statements, the integrity of the Company's financial reporting and internal controls, the oversight of the Company's internal audit function, compliance with legal and regulatory requirements, and the qualifications, independence and performance of the Company's public accountants. The Committee also provides oversight on treasury matters and reviews and recommends to the Board any financing and/or financial risk management transactions proposed by management. In addition, the Committee provides oversight of the Company's cyber security strategies and implementation as they relate to the Company's business systems.	Five	Linda Hohol, Chair Robert Davis Michael DiLollo Umar Sheikh Louise Tardif David Weger

Corporate Governance Committee

MANDATE	MEETINGS HELD IN FISCAL YEAR	CURRENT MEMBERSHIP
Develops general policies relating to corporate governance to ensure that the Company has in force an effective corporate governance system that adds value and assists the Company in achieving its objectives.	Four	Robert Reid, Chair Edward Barrett Marc Courtois Bonnie DuPont Michelle Savoy Scott Sweatman

Customer Service Charges Committee

MANDATE	MEETINGS HELD IN FISCAL YEAR	CURRENT MEMBERSHIP
Assists the Board in fulfilling its responsibilities in establishing or revising the Company's customer service charges.	Three	Edward Barrett, Chair Mary-Ann Bell Linda Hohol Scott Sweatman David Weger

Human Resources & Compensation Committee

MANDATE	MEETINGS HELD IN FISCAL YEAR	CURRENT MEMBERSHIP
Provides oversight to ensure a high quality of leadership within NAV CANADA, an employee and labour relations strategy that provides for a productive and fulfilling work environment, and ongoing flexibility and productivity throughout the Company. As well, the Committee ensures that the human resources plans and programs reflect the Company's human resources values and principles.	Eight	Bonnie DuPont, Chair Edward Barrett Mary-Ann Bell Jean Coté Robert Reid

Pension Committee

MANDATE	MEETINGS HELD IN FISCAL YEAR	CURRENT MEMBERSHIP
Oversees the investment management of plan assets and the administration of the Company's retirement plans, which include two registered pension plans and supplementary retirement arrangements. At the invitation of the Chair, an observer member, nominated by the employees' unions, attends the meetings.	Five	Michelle Savoy, Chair Edward Barrett Jean Coté Linda Hohol Scott Sweatman Louise Tardif Neil R. Wilson Peter Duffey, Observer

Safety Committee

MANDATE	MEETINGS HELD IN FISCAL YEAR	CURRENT MEMBERSHIP
Oversees the safety of the Company's air navigation services and products, primarily by monitoring the integrity and effectiveness of our risk management safety policies. In addition, the Committee provides oversight of the Company's cyber security strategies and implementation as they relate to the Company's operational facilities and operational systems.	Four	Mary-Ann Bell, Chair Marc Courtois Robert Davis Michael DiLollo Umar Sheikh Neil R. Wilson

DIRECTOR COMPENSATION

Directors' compensation fiscal 2018

NAME	FEES EARNED	ALL OTHER COMPENSATION ⁽⁵⁾	TOTAL
Edward Barrett	\$118,000	\$7,500	\$125,500
Mary-Ann Bell	\$102,250	-	\$102,250
Jean Coté	\$93,500	-	\$93,500
Marc Courtois	\$197,250 ⁽¹⁾	-	\$197,250
Robert Davis	\$94,750	-	\$94,750
Michael DiLollo	\$91,000	-	\$91,000
Bonnie DuPont	\$102,500	\$10,250	\$112,750
Linda Hohol	\$112,500	\$9,000	\$121,500
Arthur LaFlamme ⁽²⁾	\$42,500	-	\$42,500
Robert Reid	\$100,000	\$1,250	\$101,250
Michelle Savoy	\$96,500	-	\$96,500
Umar Sheikh	\$91,000	\$9,000	\$100,000
Scott Sweatman	\$94,500	\$7,500	\$102,000
Louise Tardif	\$91,500	-	\$91,500
David Weger ⁽³⁾	\$54,528	\$4,500	\$59,028
Neil R. Wilson ⁽⁴⁾	-	-	-

⁽¹⁾ Mr. Courtois receives an annual fee of \$182,750 as Chair of the Board and no other additional fees for attendance at meetings of the Board and committees of the Company. Mr. Courtois also receives an annual retainer of \$10,000 and a per meeting fee of \$1,500 from the Company for serving as the chair of the board of directors of Aireon LLC. He is entitled to reimbursement for travel fees.

⁽²⁾ Mr. LaFlamme retired from the Board on January 10, 2018.

⁽³⁾ Mr. Weger joined the Board on January 10, 2018.

⁽⁴⁾ As President and CEO, Mr. Wilson does not receive directors' fees.

⁽⁵⁾ Includes travel fees paid to directors who are required to travel across two provinces for meetings, and per diems, which are paid when a director is required to conduct business on behalf of the Board other than attendance at seminars, trade association meetings, training, or for preparation for Board and/or committee meetings.

EXECUTIVE COMPENSATION

An executive compensation package at NAV CANADA consists of the following components (referred to as the total compensation package):

- base salary;
- annual cash incentive;
- long-term cash incentive;
- pension plan; and
- benefits and perquisites.

The compensation of executive officers, other than the President and CEO, is recommended by the President and CEO and reviewed and approved by the Human Resources & Compensation Committee. The compensation of the President and CEO is reviewed and approved by the Human Resources & Compensation Committee. Base salaries for all executive officers, including that of the President and CEO, are designed to be competitive and are determined on the basis of outside market data as well as individual performance and experience level. Actual individual salary levels are determined according to a number of factors, including the individual's performance, responsibilities and experience. Base salaries are reviewed annually by the Human Resources & Compensation Committee.



Base salaries for fiscal 2018 for the five highest paid executive officers were as follows:

NAME AND POSITION	ANNUAL BASE SALARY
Neil R. Wilson, President and CEO	\$600,000
Rudy Kellar, Executive Vice President, Service Delivery	\$341,400
Alexander N. Struthers, Executive Vice President, Finance and Chief Financial Officer	\$340,600
Raymond Bohn, Executive Vice President, Human Resources, Communications and Public Affairs	\$322,900
Donna Mathieu, Vice President, Pension Investments and Treasurer	\$293,000

ETHICAL BUSINESS CONDUCT

The Code of Conduct is designed to govern the conduct of all directors and officers, and the disclosure and avoidance of conflicts of interest. This disclosure is updated annually, or more frequently, as required. All of the Company's directors and officers have signed a Code of Conduct and Conflict of Interest declaration. During fiscal 2018, no proceedings were taken against any director or officer by the Board under the Code of Conduct.

In addition, NAV CANADA has a *Code of Business Conduct* (Code of Business Conduct) which applies to all directors, officers and employees of the Company. Copies of both the Code of Conduct and the Code of Business Conduct are available on the Company's website and on SEDAR at www.sedar.com. The Corporate Governance Committee has responsibility for reviewing with the Board and management the results of an annual review of compliance with the Code of Conduct.

Directors and executive officers of the Company who hold office as a director, officer or elected official of another entity or who are an associate or employee of another entity that might be in conflict with their duty or interest towards the Company, must file a written declaration to this effect with the Company. No director or officer who is in such a position may participate in the consideration of any transaction or agreement in which such other entity has an interest.

The Code of Business Conduct, which applies to all employees, directors and officers of the Company, is reviewed and approved by the Board and complies with the requirements of National Policy 58-201 *Corporate Governance Guidelines*. The Board is committed to bringing the highest degree of honesty, integrity and ethical conduct to the Company's operations and business relationships. This commitment is reflected in the NAV CANADA vision and values, as well as in all dealings with employees, customers, bargaining agents, suppliers and other stakeholders. The Code of Business Conduct describes how that commitment is put into everyday practice.

The Code of Business Conduct is not simply a list of rules. It is intended to help employees, directors and officers maintain the very high standard of ethical behaviour expected of a company entrusted with public safety. Throughout the Code of Business Conduct, employees, directors and officers are directed to appropriate internal review and redress mechanisms available within the Company to address specific situations and potential violations. Examples of internal review and redress mechanisms include the Alternate Dispute Resolution Process, the Workplace Accommodation Right of Review Process, the Official Languages Internal Complaints Procedure, grievance processes available to unionized employees, and the Internal Complaints Resolution Process.

The Company has in place policies and processes on whistleblowing. The NAV CANADA whistleblowing system, called Sentinel, is confidential and independently managed, and has procedures for the receipt, retention and treatment of complaints received regarding accounting, internal accounting controls, auditing or pension plan matters, as well as reporting of serious ethical, legal, fraudulent or other concerns that could harm the reputation and/or financial standing of the Company. Sentinel ensures that employees have an outlet for reporting concerns relating to the Company that are not being addressed through existing channels, and that concerns regarding accounting, internal controls or auditing matters are directed to the Chair of the Audit & Finance Committee, concerns relating to pension plan matters are directed to the Chair of the Pension Committee and serious ethical, legal, fraudulent or other concerns are directed to the Chair of the Board.

In addition, the Company has a confidential safety reporting program, called ARGUS, which provides employees with the opportunity to identify potential hazards while remaining anonymous. ARGUS ensures that employees who recognize a potential hazard can report their concerns confidentially. Every employee and manager is encouraged to use the ARGUS program, without fear of recrimination.

The Board, officers and management of the Company are committed to an active disclosure culture. The Company's Corporate Disclosure Policy (available on the Company's website) ensures communications to the investing public are timely, accurate, consistent, informative, compliant with legal and regulatory requirements and broadly disseminated.

ADVISORY COMMITTEE

ADVISORY COMMITTEE REPORT

Twenty-two years ago, NAV CANADA successfully transformed from a dedicated department within Transport Canada to an independent not-for-profit corporation. Using a highly effective privatized governance model, NAV CANADA has positively impacted its regional, national and international users since its inception. Today, NAV CANADA is a world leader in providing state-of-the-art air navigation system infrastructure, products and services. The NAV CANADA Advisory Committee plays an important oversight role to the above for the Board of Directors, NAV CANADA Executive and stakeholders as stipulated in the Corporation's By-Laws.

The Advisory Committee is comprised of 20 key industry stakeholders from numerous aviation industry associations across Canada. Just as NAV CANADA has evolved over the years, so too has the Advisory Committee. Each Association or Council nominates a representative industry expert to become a member for a three-year term. The selected member is appointed to their respective position after careful internal scrutiny to ensure the highest standard of professionalism and sponsorship is realized, thereby ensuring their collective input remains valuable to the Board of Directors and ultimately to NAV CANADA. The Advisory Committee members are reflective of the broad spectrum of industry stakeholders: from major industry unions to regional associations serving remote communities to hub airports serving our major metropolitan areas and from general aviation to major commercial airlines.

The Advisory Committee meets three times a year to review, report and make recommendations to the NAV CANADA Board of Directors on matters related to the delivery of services by NAV CANADA to its customers. Two meetings are strategically

aligned with major NAV CANADA events in Ottawa to permit efficient and productive interactions with NAV CANADA's senior leadership team and Board of Directors. A joint meeting is scheduled with the Safety Committee of the Board of Directors in October, and a January meeting is held in conjunction with the NAV CANADA Annual General Meeting. The third meeting is held offsite in key regions across the country to allow the members of the Advisory Committee to observe and understand NAV CANADA's operations in the regions and meet with stakeholders on their home turf. Over the past five years, the Advisory Committee has visited the Okanagan (Kelowna), Winnipeg, Vancouver and Whitehorse.

In 2018, the Advisory Committee travelled to St. John's, Newfoundland, to gain valuable exposure to NAV CANADA's operations in the east. NAV CANADA's Michael Oxner, Maritime Specialty Operations Team, gave very impressive briefings explaining the development and effectiveness of the Halifax and Moncton ACC airspace modernization initiatives. NAV CANADA Gander Unit Procedures Specialist Lyn Terris delivered a very comprehensive briefing on North Atlantic (NAT) operations, the Organized Track System and GAATS. During the St. John's meeting, the Committee visited both Provincial Airlines (PAL) and Cougar Helicopters. At PAL, the Committee toured their Strategic Operations Centre where specialty operations, ice patrols, search and rescue, and offshore operations are coordinated, while at Cougar Helicopters the Committee learned about Cougar's specialized helicopter operations supporting the offshore oil and gas industry. Both organizations spoke very highly of the professionalism, collaboration and services provided by NAV CANADA.

Over the past two years, the Advisory Committee has noted improvements in communication and collaboration with NAV CANADA at all levels. This

is particularly true with senior leadership teams as they share their successes and concerns along with their strategies for improvements. Through strategic coordination and resource reallocation, Aeronautical Information Management has reduced the backlog of products and publications. The growing development and implementation of performance-based navigation procedures at many airports is increasing system capacity, improving operational efficiency and enhancing safety. After a comprehensive aeronautical study process, NAV CANADA's NAVAID Modernization and GNSS Failure Recovery plans are very close to full execution. Space-based ADS-B surveillance is on the cusp of operational deployment through NAV CANADA's partnership with Aireon. This is an achievement that, when combined with Aireon ALERT, a free global, real-time emergency aircraft location service, and the implementation of SATVOICE communications, is expected to be a complete game-changer for navigation service delivery in oceanic airspace.

The Advisory Committee recognizes the challenges NAV CANADA faces in meeting the needs of a rapidly growing and evolving industry and is confident that NAV CANADA is taking appropriate measures to prepare itself to meet these challenges. Strategic plans on workforce management, terminal performance management and improvements in stakeholder consultation processes are all demonstrative of NAV CANADA's ongoing commitment to improve service delivery.



Robin Saldanha Air Traffic Controller, St. John's Tower

Finally, and arguably most important, is the acknowledgment by the Advisory Committee that NAV CANADA's Safety Management System continues to be world class. The redundancy built into the technical substructures and equipment, the open non-punitive reporting system and the enhanced data sharing processes measurably contribute to making aviation in Canada tremendously safe.

The Advisory Committee commends NAV CANADA for these remarkable achievements and looks forward to continuing to provide advice and support to the Board and the organization's senior leadership team to meet whatever challenges lie ahead. On behalf of the Advisory Committee, I wish to congratulate NAV CANADA on its many achievements this past year.

Respectfully submitted,

David Deere

Chairman

NAV CANADA Advisory Committee

ADVISORY COMMITTEE 2018

ADVISORY COMMITTEE MEMBER	NOMINATING ASSOCIATION
David Deere, Chair WestJet	Commercial User Association National Airlines Council of Canada (NACC)
Brett Patterson, Vice Chair Canadian Airports Council (CAC)	National Airports Association CAC
David J. Nowzek, Secretary British Columbia Aviation Council (BCAC)	Regional Aviation Association BCAC
Les Aalders Air Transport Association of Canada (ATAC)	Air Transport Association of Canada (ATAC)
Peter Black Air Line Pilots Association (ALPA), International	Professional Pilots Association ALPA
Daniel Cadieux Air Canada Pilots Association (ACPA)	Professional Pilots Association ACPA
Paul Cameron International Brotherhood of Electrical Workers (IBEW) Local 2228	Union IBEW Local 2228
Peter Duffey Canadian Air Traffic Control Association (CATCA) Unifor Local 5454	Union CATCA Unifor Local 5454
Bernard Gervais Canadian Owners and Pilots Association (COPA)	Recreational and Non-Commercial Aviation Association COPA
Fred L. Jones Helicopter Association of Canada (HAC)	National Helicopter Association HAC
Janet Keim Saskatchewan Aviation Council (SAC)	Regional Aviation Association SAC
Devin Lyall Summit Air	Regional Aviation Association Northern Air Transport Association (NATA)
Paul McGraw Airlines for America (A4A)	Foreign Air Operators Association A4A
Chris Mellen Manitoba Aviation Council (MAC)	Regional Aviation Association MAC
Jeff Miller International Air Transport Association (IATA)	Foreign Air Operators Association IATA
Anthony Norejko Canadian Business Aviation Association (CBAA)	Non-Commercial User Association CBAA
Elizabeth O'Hurley Air Traffic Specialists Association of Canada (ATSAC) Unifor Local 2245	Union ATSAC Unifor Local 2245
Bram Tilroe Alberta Aviation Council (AAC)	Regional Aviation Association AAC
Todd Tripp Regional Community Airports of Canada (RCAC)	Member-at-Large
Stephen Wilcox Total Aviation and Airport Solutions	Regional Airports Association Airport Management Council of Ontario (AMCO)

OFFICERS AND OTHER INFORMATION

Neil R. Wilson

President and Chief Executive Officer

Rudy Kellar

Executive Vice President, Service Delivery

Alexander N. Struthers

Executive Vice President, Finance and Chief Financial Officer

Raymond G. Bohn

Executive Vice President, Human Resources, Communications and Public Affairs

Elizabeth Cameron

Vice President, Labour Relations

Ben Girard

Vice President, Operational Support

Trevor Johnson

Vice President, ATS Service Delivery

Leigh Ann Kirby

Vice President, General Counsel and Corporate Secretary

Larry Lachance

Vice President, Safety and Quality

Donna Mathieu

Vice President, Pension Investments and Treasurer

Andrew Norgaard

Vice President, Communications and Public Affairs

Claudio Silvestri

Vice President and Chief Information Officer

Kim Troutman

Vice President, Engineering and Technical Operations

As of August 31, 2018.

LEGAL COUNSEL

Gowling WLG (Canada) LLP

AUDITORS

KPMG LLP

BANKERS

Royal Bank of Canada

CORPORATE AND FINANCIAL 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 www.navcanada.ca.

Copies of the Company's Financial Statements, Management Discussion and Analysis, and Annual Information Form are available on the System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com.

NOTICE OF ANNUAL MEETING

The Annual Meeting of the Members of NAV CANADA will be held on Wednesday, January 9, 2019, at 2 p.m. at the Shaw Centre, 55 Colonel By Drive, Ottawa, Ontario.

GLOSSARY

For full definitions of many of the terms in this section, please consult Terminav®, NAV CANADA’s bilingual terminology database, available online at navcanada.ca under “Related Sites.”

ACC	Area Control Centre	FAA	Federal Aviation Administration
ADS-B	Automatic Dependent Surveillance–Broadcast	FIC	Flight Information Centre
AIM	Aeronautical Information Management	FIR	Flight Information Region
AMAN	Arrival Manager	FSS	Flight Service Station
ANS	Air Navigation Services	ICAO	International Civil Aviation Organization
ANSP	Air Navigation Service Provider	ICWP	Integrated Controller Working Position
ARGUS	Confidential Safety Reporting Program	IFR	Instrument Flight Rules
ATM	Air Traffic Management	IQA	Integrated Quality Assurance
ATS	Air Traffic Services	LSP	Leader Success Profile
ATSAC	Air Traffic Specialists Association of Canada	NAT	North Atlantic
CAATS	Canadian Automated Air Traffic System	NAVAID	Navigation Aid
CANSO	Civil Air Navigation Services Organisation	NC-SIS	NAV CANADA Safety Information System
CATCA	Canadian Air Traffic Control Association	PBN	Performance–Based Navigation
CHIP	Common Hardware Integrated Platform	RNP	Required Navigation Performance
CNS	Communications/Navigation/Surveillance	SATVOICE	Satellite Voice Communications
CSR	Corporate Social Responsibility	SMS	Safety Management System
D&I	Diversity and Inclusion	SWIM	System–Wide Information Management
ENS	Emergency Notification System	UAV	Unmanned Air Vehicle
EXCDS	Extended Computer Display System		

MANAGEMENT'S REPORT TO THE MEMBERS OF NAV CANADA

These consolidated financial statements are the responsibility of management and have been approved by the Board of Directors of NAV CANADA (the Company). These consolidated financial statements have been prepared by management in accordance with International Financial Reporting Standards (IFRS) and include amounts that are based on estimates of the expected effects of current events and transactions, with appropriate consideration to materiality, judgments and financial information determined by specialists. In addition, in preparing the financial information we must interpret the requirements described above, make determinations as to the relevance of information to be included, and make estimates and assumptions that affect reported information.

Management has also prepared a Management's Discussion and Analysis (MD&A), which is based on the Company's financial results prepared in accordance with IFRS. It provides information regarding the Company's financial condition and results of operations, and should be read in conjunction with these consolidated financial statements and accompanying notes. The MD&A also includes information regarding the impact of current transactions and events, sources of liquidity and capital resources, operating trends, risks and uncertainties. Actual results in the future may differ materially from our present assessment of this information because events and circumstances in the future may not occur as expected.

Management has developed and maintains a system of internal control over financial reporting and disclosure controls, including a program of internal audits. Management believes that these controls provide reasonable assurance that financial records are reliable and form a proper basis for the preparation of financial statements, and we have signed certificates as required by National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* in this regard. The internal accounting control process includes management's communication to employees of policies that govern ethical business conduct.

The Board of Directors has appointed an Audit & Finance Committee that is composed of directors who are independent of the Company and to which the Board of Directors has delegated responsibility for oversight of the financial reporting process. The Audit & Finance Committee meets at least four times during the year with management and independently with each of the internal and external auditors and as a group to review any significant accounting, internal control and auditing matters. The Audit & Finance Committee reviews the consolidated financial statements, MD&A and Annual Information Form before these are submitted to the Board of Directors for approval. The internal and external auditors have free access to the Audit & Finance Committee.

With respect to the external auditors, the Audit & Finance Committee approves the terms of engagement and reviews the annual audit plan, the Independent Auditors' Report and the results of the audit. It also recommends to the Board of Directors the firm of external auditors to be appointed by the Members of the Company.

The independent external auditors, KPMG LLP, have been appointed by the Members to express an opinion as to whether the consolidated financial statements present fairly, in all material respects, the Company's financial position, results of operations and cash flows in accordance with IFRS. The report of KPMG LLP outlines the scope of their examination and their opinion on the consolidated financial statements.



Neil R. Wilson
President and Chief Executive Officer

October 25, 2018



Alexander N. Struthers
Executive Vice President, Finance
and Chief Financial Officer

October 25, 2018

INDEPENDENT AUDITORS' REPORT

To the Members of NAV CANADA:

We have audited the accompanying consolidated financial statements of NAV CANADA, which comprise the consolidated statements of financial position as at August 31, 2018 and 2017 and the consolidated statements of operations, comprehensive income, changes in equity, and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of NAV CANADA as at August 31, 2018 and 2017, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.



Chartered Professional Accountants, Licensed Public Accountants
Ottawa, Canada

October 25, 2018

NAV CANADA
Consolidated Statements of Operations
Years ended August 31 (millions of Canadian dollars)

	Notes	2018	2017
Revenue			
Customer service charges	4	\$ 1,359	\$ 1,294
Customer service charges refund	4	-	(60)
Other revenue	4	56	57
		1,415	1,291
Operating expenses			
Salaries and benefits	5	986	925
Technical services		114	112
Facilities and maintenance		72	72
Depreciation and amortization	14, 15	152	147
Other		72	74
		1,396	1,330
Other (income) and expenses			
Finance income	6	(58)	(55)
Net interest costs relating to employee benefits	12	54	55
Other finance costs	6	77	90
Other (gains) and losses	7	(13)	7
		60	97
Net income (loss) before income tax and net movement in regulatory deferral accounts		(41)	(136)
Income tax (recovery) expense		(8)	14
Net income (loss) before net movement in regulatory deferral accounts		(33)	(150)
Net movement in regulatory deferral accounts related to net income (loss), net of tax	8	33	150
Net income (loss) after net movement in regulatory deferral accounts	1	\$ -	\$ -

See accompanying notes to consolidated financial statements.

NAV CANADA

Consolidated Statements of Comprehensive Income

Years ended August 31 (millions of Canadian dollars)

	Notes	2018	2017
Net income (loss) after net movement in regulatory deferral accounts		\$ -	\$ -
Other comprehensive income (loss)			
Items that will not be reclassified to income or (loss):			
Re-measurements of employee defined benefit plans	12	600	209
Net movement in regulatory deferral accounts related to other comprehensive income	8	(600)	(209)
		-	-
Items that will be reclassified to income or (loss):			
Amortization of loss on cash flow hedge		1	1
Changes in fair value of cash flow hedges		5	38
Net movement in regulatory deferral accounts related to other comprehensive income	8	(6)	(39)
		-	-
Total other comprehensive income (loss)		-	-
Total comprehensive income (loss)	1	\$ -	\$ -

See accompanying notes to consolidated financial statements.

NAV CANADA

Consolidated Statements of Financial Position

Years ended August 31 (millions of Canadian dollars)

	Notes	2018	2017
Assets			
Current assets			
Cash and cash equivalents		\$ 38	\$ 222
Accounts receivable and other	9	102	107
Investments	10	71	95
Other		17	11
		228	435
Non-current assets			
Investment in preferred interests	11, 17	418	350
Employee benefits	12	2	11
Investment in equity-accounted investee	13	6	7
Property, plant and equipment	14	735	705
Intangible assets	15	932	930
Other non-current assets		13	3
		2,106	2,006
Total assets		2,334	2,441
Regulatory deferral account debit balances	8	954	1,475
Total assets and regulatory deferral account debit balances		\$ 3,288	\$ 3,916

See accompanying notes to consolidated financial statements.

NAV CANADA

Consolidated Statements of Financial Position

Years ended August 31 (millions of Canadian dollars)

	Notes	2018	2017
Liabilities			
Current liabilities			
Trade and other payables		\$ 247	\$ 230
Deferred revenue		4	6
Customer service charges refund payable	4	-	60
Current portion of long-term debt	16	275	375
		526	671
Non-current liabilities			
Long-term debt	16	1,219	1,220
Employee benefits	12	1,070	1,586
Deferred tax liability	11	49	55
Derivative liabilities	17	-	12
Other non-current liabilities		2	2
		2,340	2,875
Total liabilities		2,866	3,546
Equity			
Retained earnings		28	28
Total equity		28	28
Total liabilities and equity		2,894	3,574
Regulatory deferral account credit balances	8	394	342
Commitments and contingencies	18, 19		
Total liabilities, equity and regulatory deferral account credit balances		\$ 3,288	\$ 3,916

See accompanying notes to consolidated financial statements.

On behalf of the Board:



Marc Courtois, Director



Linda Hohol, Director

NAV CANADA

Consolidated Statements of Changes in Equity

(millions of Canadian dollars)

	Retained earnings	Accumulated other comprehensive income	Total
Balance August 31, 2016	\$ 28	\$ -	\$ 28
Net income (loss) and net movement in regulatory deferral accounts	-	-	-
Other comprehensive income (loss)	-	-	-
Balance August 31, 2017	\$ 28	\$ -	\$ 28
Balance August 31, 2017	\$ 28	\$ -	\$ 28
Net income (loss) and net movement in regulatory deferral accounts	-	-	-
Other comprehensive income (loss)	-	-	-
Balance August 31, 2018	\$ 28	\$ -	\$ 28

See accompanying notes to consolidated financial statements.

NAV CANADA
Consolidated Statements of Cash Flows
Years ended August 31 (millions of Canadian dollars)

	Notes	2018	2017
Cash flows from:			
Operating			
Receipts from customer service charges		\$ 1,338	\$ 1,289
Refund of customer service charges		(33)	-
Other receipts		49	62
Commodity tax refund		-	3
Payments to employees and suppliers		(1,051)	(989)
Pension contributions – current service	12	(94)	(89)
Pension contributions – solvency deficiency	12	-	(44)
Settlement of curtailed severance benefits	12	(42)	-
Other post-employment payments		(6)	(7)
Interest payments		(79)	(85)
Interest receipts		3	3
		85	143
Investing			
Capital expenditures		(176)	(157)
Investment in preferred interests		-	(36)
Proceeds from sale of investment in subsidiary		-	4
Loans to related parties	11	(10)	(1)
Income tax refund (payment) on investment in preferred interests		5	(5)
Proceeds from asset-backed commercial paper trusts		1	293
Settlement of derivative assets		2	-
		(178)	98
Financing			
Issuance of medium term notes	16	273	-
Repayment of medium term notes	16	(375)	(25)
Redemption of medium term notes	16	-	(110)
Disbursements from settlement of derivatives		(13)	-
Debt service reserve fund	10	24	-
		(91)	(135)
Cash flows from operating, investing and financing activities		(184)	106
Effect of foreign exchange on cash and cash equivalents		-	(3)
Increase (decrease) in cash and cash equivalents		(184)	103
Cash and cash equivalents at beginning of year		222	119
Cash and cash equivalents at end of year		\$ 38	\$ 222

See accompanying notes to consolidated financial statements.

1. REPORTING ENTITY

NAV CANADA was incorporated as a non-share capital corporation pursuant to Part II of the *Canada Corporations Act* to acquire, own, manage, operate, maintain and develop the Canadian civil air navigation system (the ANS), as defined in the *Civil Air Navigation Services Commercialization Act* (the ANS Act). NAV CANADA has been continued under the *Canada Not-for-profit Corporations Act*. The fundamental principles governing the mandate conferred on NAV CANADA by the ANS Act include the right to provide civil air navigation services and the exclusive ability to set and collect customer service charges for such services. NAV CANADA and its subsidiaries' (collectively, the Company) core business is to provide air navigation services, which is the Company's only reportable segment. The Company's air navigation services are provided primarily within Canada.

The charges for civil air navigation services provided by the Company are subject to the economic regulatory framework set out in the ANS Act. The ANS Act provides that the Company may establish new charges and amend existing charges for its services. In establishing new charges or revising existing charges, the Company must follow the charging principles set out in the ANS Act. These principles prescribe that, among other things, charges must not be set at levels which, based on reasonable and prudent projections, would generate revenue exceeding the Company's current and future financial requirements in relation to the provision of civil air navigation services. Pursuant to these principles, the Board of Directors of the Company (the Board), acting as rate regulator, approves the amount and timing of changes to customer service charges.

The Company plans its operations to result in an annual financial breakeven position on the consolidated statement of operations after recording adjustments to the rate stabilization account. As a result, we expect no net change in retained earnings on an annual basis. The impacts of rate regulation on the Company's consolidated financial statements are described in note 8.

The ANS Act requires that the Company communicate proposed new or revised charges to customers in advance of their introduction and to consult thereon. Customers may make representations to the Company as well as appeal revised charges to the Canadian Transportation Agency on the grounds that the Company either breached the charging principles in the ANS Act or failed to provide statutory notice.

NAV CANADA is domiciled in Canada. The address of NAV CANADA's registered office is 77 Metcalfe Street, Ottawa, Ontario, Canada K1P 5L6. These consolidated financial statements of NAV CANADA include the accounts of its subsidiaries.

2. BASIS OF PRESENTATION

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

These consolidated financial statements were authorized for issue by the Board on October 25, 2018.

(b) Basis of measurement

These consolidated financial statements have been prepared on the historical cost basis except for the following material items:

- financial instruments that are classified and designated as fair value through profit or loss (FVTPL), which are measured at fair value; and
- defined benefit liabilities that are recognized as the net of the present value of defined benefit obligations and plan assets measured at fair value.

2. BASIS OF PRESENTATION (CONTINUED)

(c) Functional and reporting currency

These consolidated financial statements are presented in Canadian dollars (CDN), which is the Company's functional and reporting currency. All information presented has been rounded to the nearest million dollars unless otherwise indicated.

(d) Critical accounting estimates and judgments

The preparation of these consolidated financial statements requires management to make estimates and judgments about the future.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Accounting estimates will, by definition, seldom equal actual results. The following discussion sets forth management's:

- most critical judgments in applying accounting policies; and
- most critical estimates and assumptions in determining the value of assets and liabilities.

(i) Critical judgments

- As a result of the changes in the Company's investment in preferred interests of Aireon LLC (Aireon) (as described in note 11), the Company no longer has joint control or classifies its investment as a joint arrangement. There are no other critical judgments with respect to the investment in preferred interests of Aireon.

(ii) Key sources of estimates and assumption uncertainties

- Fair value of investment in preferred interests

The Company's investment in preferred interests in Aireon is accounted for as a financial instrument and designated as FVTPL. In May 2018, an additional air navigation service provider (ANSP) made an investment in Aireon. The Company used the price paid by that investor (note 11) as a basis to estimate the fair value of Aireon and its investment in the entity through preferred interests. The measurement is subject to estimation uncertainty and is dependent on the successful achievement of operational, technical and financial objectives by Aireon, as described in notes 11 and 17.

- Employee benefits

Defined benefit plans, other long-term employee benefits, termination benefits, and short-term employee benefits require significant actuarial assumptions to estimate the future benefit obligations and performance of plan assets. Assumptions include compensation, the retirement ages and mortality assumptions related to employees and retirees, health-care costs, inflation, discount rate, expected investment performance and other relevant factors. The Company consults with an actuary regarding these assumptions at least on an annual basis. Due to the long-term nature of these benefit programs, these estimates are subject to significant uncertainty and actual results can differ significantly from the Company's recorded obligations.

The majority of the Company's employees are unionized with collective agreements in place. At times, one agreement expires before another is in place. Management is required to estimate the total employee cost for services rendered for the period, and as a result must estimate the retroactive impact of collective agreements when they are finalized. Management's estimate is based on, but not limited to, actual agreements expired, historical experience, number of employees affected and current salaries of those employees.

(e) New standards, amendments and interpretations adopted

Certain pronouncements were issued by the IASB or the IFRS Interpretations Committee that had mandatory effective dates for annual periods beginning on or after January 1, 2017.

The following standard and amendments were adopted by the Company effective September 1, 2017:

IFRS 9 (2014) – Financial Instruments

The Company early adopted all of the requirements of IFRS 9 (2014), *Financial Instruments* (IFRS 9) with a date of initial application of September 1, 2017. See note 3 (c)(i) for a discussion of the impact of the adoption and the change in significant accounting policies.

IAS 7 – Statement of Cash Flows

In January 2016, the IASB issued amendments to IAS 7 as part of the IASB's Disclosure Initiative. These amendments require entities to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including changes from cash flows and non-cash changes. These amendments do not result in any changes to the Company's consolidated financial statements.

IAS 12 – Income Taxes

In January 2016, the IASB issued amendments to IAS 12. These amendments clarify how to account for deferred tax assets related to debt instruments measured at fair value. These amendments do not impact the Company's consolidated financial statements.

(f) New standards, amendments and interpretations issued but not yet adopted

The IASB has issued a number of standards and amendments that are not yet effective. The Company continues to analyze these standards and amendments thereto to determine the extent of their impact on its consolidated financial statements. At this time, the Company does not expect to adopt any of these standards or amendments before their effective dates.

IFRS 15 – Revenue from Contracts with Customers

The Company has assessed the anticipated impact of IFRS 15 – *Revenue from Contracts with Customers* (IFRS 15) on its consolidated financial statements. IFRS 15 will be adopted in the Company's fiscal year ending August 31, 2019 (fiscal 2019). A detailed review of its current contracts under the standard's five-step model was completed. The recognition and measurement of customer service charges revenue, which represents approximately 96% of total annual revenue, will not change upon adoption of IFRS 15. The impact on adoption to the Company's revenue is largely related to service and development contracts included in other revenue on the consolidated statement of operations and is not significant.

In accordance with the transition provisions, IFRS 15 will be adopted retrospectively. The effect on net earnings to revenue contracts in progress at September 1, 2017 is \$nil. Disclosures related to the Company's contracts with customers will be enhanced as required by IFRS 15.

IFRS 16 – Leases

In January 2016, the IASB issued IFRS 16, completing its project to improve the financial reporting of leases. The new standard will replace IAS 17 *Leases*, and it sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract. For lessees, IFRS 16 eliminates the classification of leases as either operating or finance leases that exist under IAS 17, and requires recognition of assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. IFRS 16 substantially carries forward the lessor accounting requirements under IAS 17, maintaining the classification of leases as operating or finance leases, and accounting for the lease according to its classification. IFRS 16 is to be applied retrospectively, using either a full retrospective approach or a modified retrospective approach, for annual periods beginning on or after January 1, 2019. Earlier application is permitted, but only if IFRS 15 has also been adopted.

2. BASIS OF PRESENTATION (CONTINUED)

(f) New standards, amendments and interpretations issued but not yet adopted (continued)

IFRS 16 – Leases (continued)

The Company is in the process of assessing the anticipated impact of IFRS 16 on its consolidated financial statements. The Company has formed a project team, identified its current contracts containing lease components and is conducting a detailed review of those contracts to determine the accounting impacts. The Company anticipates using the modified retrospective approach on transition to IFRS 16.

IFRIC 22 – Foreign Currency Transactions and Advance Consideration

This interpretation clarifies that the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. IFRIC 22 is effective for annual periods beginning on or after January 1, 2018. Earlier application is permitted. The Company does not expect the interpretation to have a material impact on its consolidated financial statements.

IFRIC 23 – Uncertainty over Income Tax Treatments

This interpretation clarifies the accounting for uncertainties in income taxes. The interpretation is to be applied to the determination of taxable profit or loss, tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under IAS 12. IFRIC 23 is effective for annual reporting periods beginning on or after January 1, 2019. Earlier application is permitted. The Company does not expect the interpretation to have an impact on its consolidated financial statements upon adoption.

IAS 28 – Investments in Associates and Joint Ventures

In October 2017, the IASB issued narrow-scope amendments to IAS 28 – *Investments in Associates and Joint Ventures* (IAS 28), clarifying that long-term interests in associates and joint ventures, to which the equity method is not applied, are in the scope of both IFRS 9 (including its impairment requirements) and IAS 28. The amendments are effective for annual periods beginning on or after January 1, 2019. Early adoption is permitted.

The amendments to IAS 28 clarify that:

- an entity applies IFRS 9 to other interests in associates and joint ventures, including long-term interests to which the equity method is not applied and which, in substance, form part of the net investment in those associates and joint ventures;
- an entity applies the requirements in IFRS 9 to long-term interests before applying the loss absorption and impairment requirements in IAS 28; and
- in applying IFRS 9, the entity does not take into account any adjustments to the carrying amount of long-term interests that arise from applying IAS 28.

IAS 19 – Employee Benefits

In February 2018, the IASB issued amendments to IAS 19 – *Employee Benefits* clarifying that on amendment, curtailment or settlement of a defined benefit plan, an entity now uses updated actuarial assumptions to determine its current service cost and net interest for the period and that the effect of the asset ceiling is disregarded when calculating the gain or loss on any settlement of the plan and is dealt with separately in Other Comprehensive Income (OCI). The amendments apply for plan amendments, curtailments or settlements that occur on or after January 1, 2019. Earlier application is permitted.

Annual Improvements to IFRS – 2015–2017 Cycle

On December 12, 2017, as part of the annual improvements process, the IASB issued narrow-scope amendments to IFRS 3 – *Business Combinations*, IFRS 11 – *Joint Arrangements*, IAS 12 – *Income Taxes* and IAS 23 – *Borrowing Costs*. The amendments are effective for annual reporting periods beginning on or after January 1, 2019, with early application permitted. Each of the amendments has its own specific transition requirements. The Company does not expect these annual improvements to have an impact on its consolidated financial statements.

3. SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements.

(a) Basis of consolidation

(i) Subsidiaries

Subsidiaries are entities controlled by the Company. The Company controls an investee when it is exposed, or has rights to, variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. The accounting policies of the subsidiaries are aligned with the policies adopted by the Company. All intercompany balances and transactions are eliminated on consolidation.

The consolidated financial statements of the Company include the following subsidiaries:

Name of subsidiary	Principal place of business and country of incorporation	Percentage ownership
NAV CANADA Inventory Holding Company Inc.	Canada	100%
NAV CANADA ATM Inc.	Canada	100%
NAV CANADA Satellite, Inc.	United States	100%
NCPP Investment Holding Company Inc.	Canada	100%

(ii) Investments in joint ventures and associates

A joint venture exists when there is a contractual arrangement that establishes joint control over its activities and requires unanimous consent of the parties sharing control for strategic financial and operating decisions, and where the parties have rights to the net assets of the arrangement.

Associates are entities over which the Company is able to exert significant influence but which are not subsidiaries.

Interests in joint ventures and associates are accounted for using the equity method. They are initially recognized at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the participant's share of the net income (loss) and OCI of equity-accounted investees, until the date on which joint control or significant influence ceases. The Company's investment in an equity-accounted investee is reduced for distributions received during the fiscal year.

If the Company's share of losses of an equity-accounted investee equals or exceeds its interest in the equity-accounted investee, the Company discontinues recognizing its share of further losses. Additional losses are provided for, and a liability is recognized only to the extent the Company has incurred legal or constructive obligations or made payments on behalf of the equity-accounted investee.

3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(a) Basis of consolidation (continued)

(ii) Investments in joint ventures and associates (continued)

As discussed in note 11, the Company is party to an arrangement with Iridium and the additional investors which allows the Company to exert significant influence over the strategic financial and operating activities of Aireon. This arrangement is an investment in an associate since the Company is able to exert significant influence over Aireon's strategic financial and operating activities and will have a right to the net assets of Aireon upon exercising its right to convert its preferred interests to common interests. As at August 31, 2018, the Company's share of Aireon's net assets is \$nil and therefore the Company's share of Aireon's net income (loss) and OCI is \$nil. Until the Company exercises its right to convert its preferred interests to common interests, it does not have access to Aireon's net assets and accordingly this investment is accounted for as a financial instrument.

As discussed in note 13, the Company owns 50% (August 31, 2017 – 50%) of the issued and outstanding shares of Searidge Technologies Inc. (Searidge) which is owned through NAV CANADA ATM Inc. The Company has classified its investment in Searidge as an investment in a joint venture.

(b) Foreign currency

Foreign currency transactions are translated into the functional currency using the exchange rates in effect at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated into the functional currency at that date. Non-monetary assets and liabilities denominated in a foreign currency, which are accounted for at historical cost are translated using the rate in effect at the date of the initial transaction. Foreign currency gains and losses are reported on a net basis in the net income (loss) within other income and expenses, except for differences arising on foreign operations whose functional currency is not the Canadian dollar and designated cash flow hedges that are recognized in OCI.

(c) Financial instruments

(i) Adoption of new accounting standards

IFRS 9 – Financial Instruments

The Company early adopted all of the requirements of IFRS 9 with a date of initial application of September 1, 2017. This standard replaces IAS 39 – *Financial Instruments: recognition and measurement* (IAS 39) and introduces new requirements for the classification and measurement of financial assets and liabilities. It introduces a new general hedge accounting standard, which aligns hedge accounting more closely with risk management. It also modifies the existing impairment model by introducing a new 'expected credit loss' model for calculating impairment. This new standard also increases required disclosures about an entity's risk management strategy, cash flows from hedging activities and the impact of hedge accounting on the consolidated financial statements.

IFRS 9 uses a single approach to determine whether a financial asset is measured at amortized cost or fair value, replacing the multiple rules in IAS 39. The approach is based on how an entity manages its financial instruments and the contractual cash flow characteristics of the financial assets. Most of the requirements in IAS 39 for classification and measurement of financial liabilities have been carried forward in IFRS 9.

The following summarizes the classification and measurement changes for the Company's financial assets and financial liabilities as a result of the adoption of IFRS 9:

	IAS 39	IFRS 9
Financial assets		
Cash and cash equivalents	Loans and receivables (L&R)	Amortized cost
Accounts receivable and other	Loans and receivables	Amortized cost
Debt service reserve fund	Available-for-sale (AFS)	Amortized cost
Investment in preferred interests	FVTPL ⁽¹⁾	FVTPL
Derivative assets	FVTPL	FVTPL
Financial liabilities		
Trade and other payables	Other financial liabilities	Amortized cost
Derivative liabilities	FVTPL	FVTPL
Bonds and notes payable	Other financial liabilities	Amortized cost

⁽¹⁾ Under IAS 39, these financial assets were designated as at FVTPL because they contain one or more embedded derivatives and the entire hybrid (combined) contract was designated as at FVTPL rather than separating embedded derivatives. These assets have been classified as mandatorily measured at FVTPL under IFRS 9.

The adoption of IFRS 9 did not result in any measurement adjustments to our financial assets and financial liabilities. The impact of the change in the impairment model was not significant as the Company's credit-impaired financial assets are not significant.

The adoption of IFRS 9 did not result in any changes in the eligibility of existing hedge relationships, the accounting for derivative financial instruments designated as effective hedging instruments or the line items in which they are included in the consolidated statements of financial position.

The Company has applied IFRS 9 retrospectively but has elected not to restate comparatives in accordance with the transition requirements. As a result, the comparative information provided continues to be in accordance with the Company's previous accounting policy as disclosed in our 2017 annual consolidated financial statements.

(i) Recognition

Financial assets and financial liabilities including derivatives are recorded when the Company becomes party to the contractual provisions of the financial instruments.

Financial assets and liabilities are offset and the net amount is reported in the statement of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously.

(ii) Classification

The Company classifies its financial assets and financial liabilities in the following measurement categories:

- those to be measured subsequently at FVTPL; and
- those to be measured at amortized cost.

The classification of financial assets depends on the business model for managing the financial assets and the contractual terms of the cash flows. Financial liabilities are classified as those to be measured at amortized cost unless they are designated as those to be measured subsequently at FVTPL.

3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(c) Financial instruments (continued)

(i) Adoption of new accounting standards (continued)

(iii) Measurement

All financial instruments, other than trade receivables without a significant financing component, are required to be measured at fair value on initial recognition. If a financial asset or financial liability is not subsequently measured at FVTPL, then the initial measurement includes transaction costs that are directly attributable to the acquisition or issue of the instrument.

Trade receivables without a significant financing component are initially measured at the transaction price.

The Company's business model objective is to collect contractual cash flows and the contractual cash flows are solely payments of principal and/or interest, and as such financial assets are generally subsequently measured at amortized cost using the effective interest method net of any impairment loss. All other financial assets are measured at fair value with changes, including any interest or dividend income recognized in net income (loss) or other comprehensive income. The Company currently has no financial assets measured at fair value through other comprehensive income.

Financial liabilities are generally subsequently measured at amortized cost using the effective interest method unless they are held for trading, they are derivatives or they have been designated as those to be measured subsequently at FVTPL. The Company has not designated any financial liabilities as measured at FVTPL.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payments of principal and interest. Embedded derivatives in financial liabilities are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract, a separate instrument with the same terms as the embedded derivative meets the definition of a derivative, and the combined instrument is not measured at fair value through profit or loss. Changes in the fair value of separable embedded derivatives are recognized immediately in net income (loss).

(iv) Impairment

The Company uses the "expected credit loss" model for calculating impairment and recognizes expected credit losses as a loss allowance in the consolidated statement of financial position if they relate to a financial asset measured at amortized cost. For trade receivables, the Company applies the simplified approach as permitted by IFRS 9 which requires lifetime expected credit losses be recognized from initial recognition of receivables. The carrying amount of these assets in the consolidated statement of financial position is stated net of any loss allowance.

(v) Derivatives and hedge accounting

Derivatives are initially recognized and subsequently re-measured at fair value at each reporting date. The accounting for subsequent changes in fair value depends on whether the derivatives are designated as hedging instruments, and if so, the nature of the item being hedged and the type of hedge relationship designated. Changes in the fair value of derivative financial instruments designated as hedging instruments in cash flow hedging relationships are recognized in OCI. Changes in the fair value of derivative financial instruments that have not been designated are recognized through net income (loss) as they arise.

The Company uses derivative financial instruments to manage risks from fluctuations in foreign exchange rates and interest rates. The Company's derivative assets and liabilities consist of forward dated interest rate swap agreements and bond and foreign exchange forward agreements. The fair values of these derivatives are calculated by discounting expected future cash flows based on current interest and forward exchange rates.

Where permissible, the Company accounts for these financial instruments as cash flow hedges, which ensures that counterbalancing gains and losses are recognized in income in the same period as the hedged item. On initial designation of the hedge, the relationship between the hedged item and the hedging instrument is formally documented, including the Company's risk management objectives and strategies for undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship. The effectiveness of the hedging relationship is assessed at inception of the contract related to the hedging item and then again at each reporting date to ensure the relationship is and will remain effective. For a cash flow hedge of a forecasted transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported net earnings.

Cash flow hedges

When a derivative is designated as the hedging instrument in a hedge of the variability of cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that could affect net income (loss), the effective portion of the change in fair value of the derivative is recognized in other comprehensive income and presented as part of equity. The amount recognized in other comprehensive income is transferred to net income (loss) under the same line item in the statement of operations as the hedged item, in the same period or periods as the hedged cash flows affect net income (loss). Any ineffective portion is recognized immediately in net income (loss).

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, then hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognized in other comprehensive income remains in equity until the anticipated transaction affects net income (loss). If the forecasted transaction is no longer expected to occur, then the balance accumulated in equity is recognized immediately in net income (loss).

(d) Employee benefits

(i) Defined benefit plans

The defined benefit obligation and estimated costs of the Company's defined benefit pension plans and other post-employment benefits are calculated annually by a qualified actuary using the projected unit credit method. The actuarial calculations are performed using management's estimates of expected investment performance, compensation, the retirement ages of employees, mortality rates, health-care costs, inflation and other relevant factors. The real discount rate is determined using the yield at the reporting date on high quality Canadian corporate bonds that have maturity dates approximating the terms of the Company's obligations. Net interest is determined using the real discount rate discussed above. The funded status of the plan, or defined benefit asset or liability, corresponds to the future benefits employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets. Defined benefit assets or liabilities are presented as non-current items in the statement of financial position.

The Company recognizes all actuarial gains and losses on the plan assets (excluding interest) in OCI in the period in which they are incurred, with no subsequent reclassification to net income (loss). The Company has made a policy choice to reclassify adjustments in OCI to retained earnings.

The service costs of employee benefits expense is recorded in salaries and benefits. The interest arising on net benefit obligations is recognized in net income (loss) and is presented in net interest costs relating to employee benefits. A portion of these employee benefit expenses is allocated to the cost of assets under development.

When benefits are amended, the portion of the changed benefit relating to past service by employees is recognized in net income (loss) immediately. Gains and losses on curtailments or settlements are recognized in net income (loss) in the period in which the curtailment or settlement occurs.

3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(d) Employee benefits (continued)

(i) Defined benefit plans (continued)

The Company's two registered pension plans are subject to minimum funding requirements. The liability in respect to minimum funding requirements is determined using the projected minimum funding requirements based on management's best estimates of the actuarially determined funded status of the plan, market discount rates, salary escalation estimates, the Company's ability to take contribution holidays and its ability to use letters of credit to secure solvency special payments revealed by funding actuarial valuations.

When the funded status of a plan results in an asset (a plan surplus), the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. The Company recognizes any adjustments to this limit in OCI in the period incurred, with no subsequent reclassification to net income (loss).

(ii) Other long-term employee benefits

The Company provides other long-term benefits to its employees, including long-term disability (LTD) benefits, accumulating sick leave benefits (vesting and non-vesting) and long-term executive incentive plan benefits. The LTD benefits plan is funded. The same methodology and management estimates are used to value other long-term benefits as in the defined benefit plans; however, the actuarial gains and losses are included in net income (loss) in the period when they occur. The long-term executive incentive plan is earned and recognized in net income (loss) over a three year period. The net amount of long-term employee benefit expense is presented in salaries and benefits expense net of any costs allocated to assets under development.

(iii) Termination benefits

Termination benefits are recognized as an expense in net income (loss) when the Company has committed to either terminate employment before the normal retirement date or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits for voluntary departures are recognized as an expense when it is probable that a voluntary departure offer will be accepted and the number of acceptances can be estimated. When benefits are payable more than 12 months after the reporting date, they are discounted.

(iv) Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis, taking into account the additional amount the Company expects to pay as a result of the unused entitlement at the reporting date. Expenses are recognized in net income (loss) as the services are provided. Short-term employee benefits include salaries, vacation and other leave.

(e) Property, plant and equipment

Property, plant and equipment is measured at cost less accumulated depreciation and accumulated impairment losses, if applicable. The cost of property, plant and equipment includes expenditures that are directly attributable to the acquisition of the asset. The cost of assets under development includes the cost of materials, direct labour and employee benefits, any other costs directly attributable to bringing the asset to a working condition for its intended use, and the costs of dismantling and removing the items and restoring the site on which they are located when a legal commitment or constructive obligation exists for them. Borrowing costs for qualifying assets are capitalized in accordance with the Company's accounting policy as described in note 3 (h).

Costs subsequent to initial recognition are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the asset will flow to the Company and its cost can be measured reliably. Repairs and maintenance costs are recorded in the statement of operations during the period in which they are incurred.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as components of property, plant and equipment and are depreciated separately. Depreciation begins when construction is complete and the asset is available for use. Land and assets under development are not depreciated. Depreciation on other assets is recognized in the statement of operations on a straight-line basis over the following estimated useful lives:

Assets	Estimated useful life (years)
Buildings	15 to 40
Systems and equipment	3 to 25

Estimated useful lives, residual values and depreciation methods are reviewed, and adjusted prospectively if appropriate, at each reporting date.

An item of property, plant and equipment is derecognized upon disposal, replacement or when no future economic benefits are expected from its use or disposal. Any gain or loss on derecognition of the asset is determined by comparing the proceeds from disposal to the carrying amount of the asset. Such gains and losses are recognized in the statement of operations in the period in which the asset is derecognized.

Other contributions to property, plant and equipment

Contributions of a revenue nature from third parties intended to offset the cost of property, plant and equipment are credited to income in the period to which they relate.

(f) Intangible assets

Intangible assets are carried at cost less accumulated amortization and accumulated impairment losses, if applicable. The expenditures capitalized include the cost of materials, direct labour and any other costs that are directly attributable to preparing the asset for its intended use. Borrowing costs for qualifying assets are capitalized in accordance with the Company's accounting policy as described in note 3 (h).

An internally-developed intangible asset arising from development is recognized if all of the following criteria for recognition have been met: technical feasibility of completing the asset, intent and ability to complete the asset, intent and ability to use or sell the asset, determination on how the intangible asset will generate future benefits, availability of technical, financial and other resources to complete the development and to use or sell the asset, and ability to reliably measure attributable expenditures. Research costs are expensed in the statement of operations as incurred.

Costs subsequent to initial recognition are capitalized only when they increase the future economic benefits embodied in the specific assets to which they relate and the expenditures can be measured reliably; otherwise they are recorded within operating expenses in the statement of operations.

The Company has the right under the ANS Act to provide civil air navigation services and the exclusive ability to set and collect customer service charges for such services. While the ANS Act does not limit the duration of these rights, for accounting purposes the Company's air navigation right will be fully amortized by 2042, which is the recovery period established by the Board, acting as the rate regulator.

3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(f) Intangible assets (continued)

Amortization of other intangible assets begins when development is complete and/or the asset is available for use. It is amortized over the period of expected future benefit. Amortization of intangible assets is recognized in the statement of operations on a straight-line basis over the following estimated useful lives:

Assets	Estimated useful life (years)
Air navigation right	46
Purchased software	5 to 20
Internally-developed software	5 to 20

Intangible assets under development are not amortized.

Estimated useful lives, residual values and amortization methods are reviewed, and adjusted prospectively if appropriate, at each annual reporting date.

An intangible asset is derecognized upon disposal, replacement or when no future economic benefits are expected from its use or disposal. Any gain or loss on derecognition is determined by comparing the proceeds from disposal to the carrying amount of the asset. Such gains and losses are recognized in the statement of operations as other income or expense in the period in which the asset is derecognized.

(g) Impairment of non-financial assets

At each reporting date, the Company reviews its property, plant and equipment and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If so, the assets' recoverable amount is estimated. Assumptions in assessing the recoverable amount relate to the continuing right to provide civil air navigation services and the exclusive ability to set and collect customer service charges for such services. If changes in any such expectations arise, impairment charges may be required which could materially impact operating results. Goodwill and assets under development are tested annually for impairment.

The recoverable amount of an asset or cash generating unit (CGU) is the greater of its fair value less costs to sell and its value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is reduced to its recoverable amount. An impairment loss is recognized as an expense immediately in net income (loss).

Where an asset does not generate cash flows that are independent from other assets, the Company estimates the recoverable amount of the CGU to which the asset belongs. Because the ANS is operated as a system, it is not possible in a meaningful way to isolate the cash flow that is attributable to individual assets within the system. Thus the air navigation system is considered to be a single CGU. When there are assets within the system that are no longer required, a separate valuation of these specific assets occurs.

Regulatory deferral account balances are anticipated to either be returned or recovered through the Company's customer service charges as approved by the rate regulator per the charging principles set out in the ANS Act. To determine whether there is any indication that regulatory deferral account assets are impaired, the Company reviews its ability to recover regulatory deferral account balances through future customer service charges for the provision of civil air navigation services as defined by the ANS Act.

(h) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are ready for their intended use or sale. Qualifying assets are those that necessarily take greater than one year to prepare for their intended use. All other borrowing costs are recognized in the statement of operations using the effective interest method.

(i) Provisions

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting estimated future cash flows, adjusted for risks specific to the liability, using a risk-free rate that reflects current market assessments of the time value of money. Increases in the provision due to the passage of time (the unwinding of the discount) are recognized as a finance cost.

Provisions are reviewed at each reporting date and adjusted to reflect current estimates.

Decommissioning liabilities are recognized when the Company has a legal or constructive obligation to dismantle and remove an asset and restore the site on which the asset is located. When the liability is initially recorded, an equivalent amount is capitalized as an inherent cost of the associated buildings, systems or equipment. All changes in the decommissioning provision resulting from changes in the estimated future costs or significant changes in the discount rate are added to or deducted from the cost of the related asset in the current period. The capitalized cost is depreciated over the useful life of the capital asset.

(j) Regulatory deferral accounts

The timing of recognition of certain revenue and expenses differs from what would otherwise be expected for companies that are not subject to regulatory statutes governing the level of their charges, the effect of which is described in note 8.

The Company's approach to determining the level of customer service charges is based upon the charging principles set out in the ANS Act which prescribe, among other things, that charges must not be set at levels which, based on reasonable and prudent projections, would generate revenues exceeding the Company's current and future financial requirements in relation to the provision of civil air navigation services. Pursuant to these principles, the Board, acting as rate regulator, approves the amount and timing of changes to customer service charges.

In January 2014, the IASB issued IFRS 14 *Regulatory Deferral Accounts* as an interim standard, permitting entities conducting rate-regulated activities to continue to recognize regulatory deferral account balances according to their previous generally accepted accounting principles. IFRS 14 is restricted to first-time adopters of IFRS and remains in force until either repealed or replaced by permanent guidance on rate-regulated accounting. The Company recognized regulatory deferral account balances in its Canadian GAAP consolidated financial statements prior to adopting IFRS and elected to early adopt this standard as of September 1, 2014 when it adopted IFRS.

In order to mitigate the effect on its operations of unpredictable and uncontrollable factors, principally unanticipated fluctuations in air traffic levels, the Company maintains a rate stabilization mechanism. Amounts are added to or deducted from the rate stabilization account based upon variations from amounts used when establishing customer service charges. In addition, for certain transactions where the timing of the cash flows differs significantly from the accounting recognition, the Company recognizes other regulatory deferral amounts in order to defer the accounting recognition to the period in which they will be considered for rate setting. These certain transactions are generally considered for rate setting when the amounts are expected to be realized in cash, with the exception of the cash flows related to hedging instruments, which are considered for rate setting in the same period as the underlying hedged transaction.

3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(k) Revenue

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received, excluding sales taxes.

(i) Customer service charges

Revenue is recognized as air navigation services are rendered. Rates for customer service charges are those approved by the Board, acting as rate regulator.

Refunds of customer service charges are recognized when approved by the Board, acting as rate regulator, or when a constructive obligation exists.

(ii) Service and development contracts

Revenue is recognized as services are rendered. Revenue from a contract to provide services is recognized by reference to the stage of completion of the contract. When the outcome of a transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of incurred expenses that are considered recoverable.

Where the outcome of a development contract can be estimated reliably, revenue and costs are recognized by reference to the stage of completion of the contract activity at the end of the reporting date, measured based on the proportion of contract costs incurred for work performed to date relative to the estimated total contract costs. Variations in contract work, claims and incentive payments are included to the extent that the amount can be measured reliably and its receipt is considered probable.

When management determines that it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

(iii) Aeronautical publications

Revenue is recognized for the sale of aeronautical publications when the significant risks and rewards of ownership have been transferred to the customer and the costs relating to the transaction can be measured reliably.

(l) Lease payments

Payments made under operating leases are recognized in the statement of operations as operating expenses on a straight-line basis over the term of the respective lease. Lease incentives received are recognized as an integral part of the total lease expense, over the term of the lease.

(m) Finance income and other finance costs

Finance income comprises interest income on investments and changes in the fair value of financial assets at FVTPL. Interest income is recognized as it accrues in net income (loss), using the effective interest method.

Other finance costs comprise interest expense on borrowings, unwinding of the discount on provisions, changes in the fair value of financial assets at FVTPL, and impairment losses recognized on financial assets. Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognized in net income (loss) using the effective interest method.

(n) Income taxes

(i) Current taxes

NAV CANADA is exempt from income taxes as it meets the definition of a not-for-profit organization under the *Income Tax Act (Canada)* (ITA); however, its subsidiaries operating in Canada and other jurisdictions are subject to Canadian and foreign taxes.

(ii) Deferred taxes

Deferred tax assets and deferred tax liabilities are recognized for the tax effect of the difference between carrying values and the tax bases of assets and liabilities. Deferred tax assets are recognized for deductible temporary differences, for unused tax losses and income tax reductions to the extent that it is probable that they will be able to be utilized against future taxable income. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related benefit will be realized.

Deferred tax assets and deferred tax liabilities are measured using enacted or substantively enacted tax rates and tax laws at the reporting date that are expected to apply to their respective period of realization. These amounts are reassessed each period in the event of changes in income tax rates.

Deferred tax assets and liabilities are offset, when there is the legal right and intention to set off current tax assets and liabilities from the same taxation authority.

(o) Segmented reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of operations, has been identified as the Company's Chief Executive Officer. The Company's core business is to provide air navigation services, for which it collects customer service charges. The core business is the Company's only reportable segment. The Company's air navigation services are provided primarily within Canada. Substantially all of the Company's capital expenditures and assets are located in Canada.

4. REVENUE

Customer service charges by type of air navigation service provided for the years ended August 31 were as follows:

	2018	2017
Enroute ⁽¹⁾	\$ 704	\$ 676
Terminal ⁽²⁾	517	488
Daily / annual / quarterly ⁽³⁾	93	84
North Atlantic and international communication ⁽⁴⁾	45	46
	1,359	1,294
Customer service charges refund ⁽⁵⁾	-	(60)
	\$ 1,359	\$ 1,234

- (1) Enroute charges related to air navigation services provided or made available to aircraft during the enroute phase of the flight, whether they overfly Canadian-controlled airspace or take-off and/or land in Canada;
- (2) Terminal charges related to air navigation services provided or made available to aircraft at or in the vicinity of an airport;
- (3) Daily / annual / quarterly charges related to enroute and terminal air navigation services. These charges generally apply to propeller aircraft; and
- (4) North Atlantic and international communication charges related to certain air navigation and communication services provided or made available to aircraft while in airspace over the North Atlantic Ocean. These services are provided outside of Canadian sovereign airspace but for which Canada has air traffic control responsibility pursuant to international agreements. The international communication charges also include services provided or made available while in Canadian airspace in the north.
- (5) On August 11, 2017, the Company announced its decision to return to its customers approximately \$60 in a one-time refund. The refund was issued in the fiscal year ending August 31, 2018 (fiscal 2018).

The Company has two customers each of which represents more than 10% of revenue. For fiscal 2018, revenue from the largest customer was \$266 (year ended August 31, 2017 (fiscal 2017) – \$250) and revenue from the second largest customer was \$167 (fiscal 2017 – \$162), together representing 31% (fiscal 2017 – 32%) of the Company's revenue. The revenue from these two major customers arose from air navigation services.

Other revenue for fiscal 2018 consists primarily of service and development contracts revenue of \$37 (fiscal 2017 – \$37).

5. SALARIES AND BENEFITS

Salaries and benefits expenses for the years ended August 31 were comprised of the following:

	2018	2017
Salaries and other (excluding curtailment expense)	\$ 777	\$ 719
Curtailment (gain) expense (note 12)	(1)	11
Fringe benefits (excluding pension)	79	59
Pension current service cost	177	176
Less: capitalized salaries and benefits	(46)	(40)
	\$ 986	\$ 925

6. FINANCE INCOME AND OTHER FINANCE COSTS

Finance income and other finance costs for the years ended August 31 were comprised of the following:

	2018	2017
Finance income		
Interest income on financial assets at amortized cost	\$ (4)	\$ (3)
Net change in fair value of financial assets at FVTPL	(54)	(52)
	\$ (58)	\$ (55)
Finance costs		
Interest expense on financial liabilities at amortized cost	\$ 82	\$ 83
Less: capitalized borrowing costs	(5)	(3)
Redemption premium (note 16)	-	10
	\$ 77	\$ 90

7. OTHER GAINS AND LOSSES

Other gains and losses for the years ended August 31 were comprised of the following:

	2018	2017
Foreign exchange (gains) losses	\$ (14)	\$ 12
Realized gain on sale of investment in subsidiary	-	(2)
Unrealized gain on sale of investment in subsidiary	-	(5)
Share of net loss of equity-accounted investee (note 13)	1	1
Other losses	-	1
	\$ (13)	\$ 7

8. FINANCIAL STATEMENT IMPACT OF REGULATORY DEFERRAL ACCOUNTS

In accordance with disclosures required for entities subject to rate regulation, the Company's regulatory deferral account balances are as follows:

	August 31 2017	Regulatory deferral	Recovery/ reversal	August 31 2018	Recovery period
Regulatory deferral account debit balances					
Derivatives (a)	\$ 13	\$ (13)	\$ -	\$ -	(1), (9)
Deferred income tax	56	(6)	-	50	(2), (3)
Employee benefits:					
Accumulating sick leave (b)	30	(4)	(1)	25	(4)
Other post-employment benefits re-measurements	41	(14)	(7)	20	(5), (10)
Pension contributions (c)	-	108	(10)	98	(6)
Pension re-measurements (c)	1,251	(608)	-	643	(6), (10)
Supplemental pension re-measurements	33	22	-	55	(5), (10)
Realized hedging transaction	51	13	(1)	63	(1), (9)
	\$ 1,475	\$ (502)	\$ (19)	\$ 954	
Regulatory deferral account (credit) balances					
Rate stabilization account (d)	\$ (131)	\$ (3)	\$ 10	\$ (124)	(7)
Derivatives (a)	-	(3)	-	(3)	(1), (9)
Employee benefits:					
Pension contributions (c)	(9)	9	-	-	(6)
Long-term disability contributions	(8)	-	3	(5)	(8)
Change in the fair value of the investment in preferred interests	(185)	(68)	-	(253)	(2)
Investment in equity-accounted investee	(4)	1	-	(3)	(3)
Realized hedging transaction	(5)	(2)	1	(6)	(1)
	\$ (342)	\$ (66)	\$ 14	\$ (394)	

	August 31 2016	Regulatory deferral	Recovery/ reversal	August 31 2017	Recovery period
Regulatory deferral account debit balances					
Derivatives (a)	\$ 54	\$ (41)	\$ -	\$ 13	(1), (9)
Deferred income tax	45	11	-	56	(2), (3)
Employee benefits:					
Accumulating sick leave (b)	30	-	-	30	(4)
Other post-employment benefits re-measurements	38	7	(4)	41	(5), (10)
Pension re-measurements (c)	1,482	(231)	-	1,251	(6), (10)
Supplemental pension re-measurements	7	26	-	33	(5), (10)
Realized hedging transaction	52	(1)	-	51	(1), (9)
	\$ 1,708	\$ (229)	\$ (4)	\$ 1,475	
Regulatory deferral account (credit) balances					
Rate stabilization account (d)	\$ (169)	\$ -	\$ 38	\$ (131)	(7)
Derivatives (a)	(3)	3	-	-	(1), (9)
Employee benefits:					
Pension contributions (c)	(136)	127	-	(9)	(6)
Long-term disability contributions	-	-	(8)	(8)	(8)
Change in the fair value of the investment in preferred interests	(162)	(23)	-	(185)	(2)
Investment in equity-accounted investee	-	(4)	-	(4)	(3)
Realized hedging transaction	(6)	-	1	(5)	(1)
	\$ (476)	\$ 103	\$ 31	\$ (342)	

(1) Cash flow hedges are considered for rate setting in the same period as the underlying hedged transaction.

Fair value losses (gains) on foreign exchange forward contracts are considered for rate setting in the period that they are realized. Fair value losses (gains) on forward-dated interest rate swaps and bond forward derivative instruments are deferred and considered for rate setting over the term of the related debt instrument.

(2) The regulatory deferrals related to the Company's investment in Aireon are considered for rate setting when they are realized in cash through the receipt of dividends net of tax. The total regulatory deferral of income tax related to the Company's investment in Aireon is \$49 as at August 31, 2018 (August 31, 2017 - \$55).

(3) The unrealized gain on the Company's remaining 50% interest in Searidge, as well as its share of Searidge's net assets, are considered for rate setting when realized in cash net of tax (e.g. through a sale of all or a portion of the Company's interest or the receipt of dividends). The total regulatory deferral of income tax related to the Company's share of the net assets of Searidge is \$1 as at August 31, 2018 (August 31, 2017 - \$1).

(4) Non-vesting accumulating sick leave is considered for rate setting when the sick leave benefits are used and paid in cash. Vested accumulating sick leave is considered for rate setting over the period in which the employees render service.

(5) These re-measurement amounts will be recovered by amortizing the prior years' annual re-measurements over the expected average service period of the plan members.

8. FINANCIAL STATEMENT IMPACT OF REGULATORY DEFERRAL ACCOUNTS (CONTINUED)

- ⁽⁶⁾ The Company's cost of pension benefits for its funded plans are considered for rate setting based on the Company's cash contributions to the pension funds as described in note 8 (c) below. Pension adjustments related to the adoption of IFRS and subsequent re-measurements are deferred and are considered for rate setting purposes as cash contributions to the pension funds are made.

The Company made solvency deficiency contributions of \$44 for the year ended August 31, 2017 that were deferred. During the year ended August 31, 2018, \$10 was recovered and the remaining \$34 is expected to be recovered through future service charges.

- ⁽⁷⁾ In order to mitigate the effect on its operations of unpredictable and uncontrollable factors, principally unanticipated fluctuations in air traffic levels, the Company maintains a rate stabilization mechanism. Amounts are added to or deducted from the rate stabilization account based upon variations from amounts used when establishing customer service charges.

In addition, for certain transactions where the timing of the cash flows differs significantly from the accounting recognition, the Company recognizes other regulatory deferral accounts in order to defer the accounting recognition to the period in which they will be considered for rate setting.

- ⁽⁸⁾ The Company recovers the annual cost of the LTD contributions to the funded plan.
- ⁽⁹⁾ The net movement in regulatory deferral accounts related to other comprehensive income due to changes in fair value of cash flow hedges for the year ended August 31, 2018 of \$5 is comprised of \$1 related to the amortization of the loss on the realized hedging transaction to net income (loss) and \$4 to defer fair value adjustments related to derivatives designated as cash flow hedges.
- ⁽¹⁰⁾ The net movement in regulatory deferral accounts related to other comprehensive income due to re-measurements of employee defined benefit plans for the year ended August 31, 2018 is \$600 which consists of pension re-measurements of \$608, and other post-employment benefits re-measurements of \$14 partially offset by supplemental pension re-measurements of \$22.

Included in the other post-retirement benefits regulatory deferral of \$7 for the year ended August 31, 2017 is the deferral of curtailment expense of \$11 (see note 12), which is included in the net movement in regulatory deferral accounts related to net income (loss).

The cumulative difference between total regulatory debit balances and total regulatory credit balances is reflected in equity at each reporting date.

When establishing customer service charges, the Board considers the balance in the rate stabilization account. The long-term target credit balance of the rate stabilization account is 7.5% of total planned annual expenses net of other (income) expenses, excluding non-recurring items, on an ongoing basis. For fiscal 2018, the target balance was \$104 (fiscal 2017 – \$101).

On August 7, 2018, the Company issued an announcement detailing the implementation of revised service charges, effective September 1, 2018. The revised charges decrease existing base rates on average by 0.4%. This effectively continues the one-year temporary rate reduction that was implemented last year. On average customers will pay the same rates in fiscal 2019, as they did in fiscal 2018.

The Company returned to its customers approximately \$60 in a one-time refund in fiscal 2018. The impact of this refund was included in the decrease to the rate stabilization account during fiscal 2017 (see table below).

The Company does not use a rate of return to reflect the time value of money for any of its regulatory deferral account balances.

The table below shows the impact of rate stabilization adjustments and net movement in regulatory deferral accounts on the net income (loss) as reported in the consolidated statement of operations:

	2018	2017
Before net movement in regulatory deferral accounts:		
Revenue	\$ 1,415	\$ 1,291
Operating expenses	1,396	1,330
Other (income) and expenses	60	97
Income tax (recovery) expense	(8)	14
	(33)	(150)
Net movement in regulatory deferral accounts:		
Rate stabilization adjustments:		
Favourable variances from planned results	(3)	(60)
Customer service charges refund	-	60
Initial approved adjustment ⁽¹⁾	10	38
	7	38
Other regulatory deferral account adjustments:		
Employee benefit pension contributions	107	127
Other employee benefits	(9)	(1)
Investment in preferred interests, before tax	(68)	(25)
Investment in equity-accounted investee	1	(4)
Income tax	(6)	14
Realized hedging transactions	1	1
	26	112
	33	150
Net income (loss), after rate stabilization and regulatory deferral account adjustments	\$ -	\$ -

⁽¹⁾ In order to achieve breakeven results of operations in fiscal 2018, the Board approved a reduction of the rate stabilization account as a result of a planned shortfall. As a result, \$10 has been transferred out of the rate stabilization account evenly throughout the fiscal year (fiscal 2017 – \$38).

8. FINANCIAL STATEMENT IMPACT OF REGULATORY DEFERRAL ACCOUNTS (CONTINUED)

(a) Derivatives – Regulatory unrealized hedging transactions

Regulatory unrealized hedging transaction debit (credit) balances, consisting of unrealized losses and gains on derivative financial instruments designated as cash flow hedges, are as follows:

	August 31 2018	August 31 2017
Unrealized fair value loss (gain) on bond forward derivative instrument ⁽¹⁾	\$ -	\$ 1
Unrealized fair value losses (gains) on bond forward derivative instrument ⁽²⁾	(3)	-
Unrealized fair value losses (gains) on forward-dated interest rate swap agreements ⁽²⁾	-	12
	\$ (3)	\$ 13

⁽¹⁾ The Company previously held a bond forward agreement that was to mature on April 19, 2018. This bond forward agreement was closed in January 2018 as a result of changes in our refinancing plans; and a new bond forward agreement was simultaneously entered into to align with the revised plan. The new bond forward agreement was closed in March 2018 and was reclassified as a regulatory realized hedging transaction.

⁽²⁾ The Company held forward-dated interest rate swap agreements that were to mature in April 2019, when the hedged refinancing is expected to occur. In June 2018, these interest rate swaps were settled and the Company simultaneously entered into bond forward agreements. When the anticipated transaction occurs, the realized gains or losses will be reclassified to a regulatory realized hedging transaction debit or credit balance.

(b) Employee benefits – accumulating sick leave debit balances

	August 31 2018	August 31 2017
Non-vesting accumulating sick leave	\$ 17	\$ 21
Vested accumulating sick leave	8	9
Total accumulating sick leave	\$ 25	\$ 30

(c) Pension contributions

Included in regulatory deferral account debit balances at August 31, 2018 is \$98 relating to the recovery through customer service charges of pension contributions. At August 31, 2017, \$9 was included in regulatory deferral account credit balances. The accrued pension benefit liability, net of regulatory deferrals is as follows:

	August 31 2018	August 31 2017
Employee benefit liability (note 12)	\$ (707)	\$ (1,198)
Less:		
Regulatory deferrals of non-cash adjustments	643	1,251
Benefit contributions (less than) in excess of benefit expense	\$ (64)	\$ 53
Regulatory debit (credit) balances – recovery of contributions	\$ 98	\$ (9)
Regulatory expense cumulatively less than contributions	\$ 34	\$ 44

The Company uses a regulatory approach to determine the net charge to net income (loss) for pension benefit costs for its funded plans. The objective of this approach is to reflect the cash cost of the funded pension plans in net income (loss) by recording an adjustment to the related regulatory deferral account. These regulatory adjustments are the difference between the pension benefit costs as determined by IAS 19 *Employee Benefits* and the annual going concern cash cost of the plan. Included in the regulatory deferral related to pension contributions of \$98, is the recovery of \$10 of solvency deficiency contributions of the \$44 paid in fiscal 2017. The remaining balance of \$34 is expected to be recovered through future customer service charges. The funding of employee pension benefits as compared to the expense, net of regulatory adjustments, recorded in the consolidated statement of operations is summarized below.

	Years ended August 31	
	2018	2017
Consolidated statement of operations		
Pension current service costs ⁽¹⁾	\$ 173	\$ 174
Net finance costs ⁽¹⁾	41	44
Less: Regulatory deferrals	(107)	(127)
	107	91
Company cash contributions		
Going concern current service	97	91
Solvency deficiency payments	-	44
	97	135
Regulatory recovery (deferral) of fiscal 2017 solvency contributions	\$ 10	\$ (44)

⁽¹⁾ For the year ended August 31, 2018, pension current service costs do not include \$4 related to the Company's unfunded pension plan (year ended August 31, 2017 - \$2) and net finance costs do not include \$3 related to the Company's unfunded pension plan (year ended August 31, 2017 - \$2).

(d) Rate Stabilization Account

The rate stabilization account credit balance was comprised of operating deferrals. Should actual revenue exceed the Company's actual expenses, such excess is reflected as a credit to the rate stabilization account. Conversely, should actual revenue be less than actual expenses, such shortfall is reflected as a debit to the rate stabilization account. A debit balance in the rate stabilization account represents amounts recoverable through future customer service charges, while a credit balance represents amounts returnable through reductions in future customer service charges.

9. ACCOUNTS RECEIVABLE AND OTHER

Accounts receivable and other were comprised of the following:

	August 31 2018	August 31 2017
Trade receivables	\$ 84	\$ 90
Accrued receivables and unbilled work in progress	19	18
Allowance for doubtful accounts	(1)	(1)
	\$ 102	\$ 107

The Company's exposure to credit and foreign exchange risks and to impairment losses related to accounts receivable is described in note 17.

10. CURRENT INVESTMENTS

Current investments were comprised of the following:

	August 31 2018	August 31 2017
Debt service reserve fund	\$ 71	\$ 95

Reserve funds for Master Trust Indenture and Liquidity Covenants of the General Obligation Indenture:

Pursuant to the Master Trust Indenture (note 16), the Company is required to establish and maintain certain reserve funds, as follows:

Debt service reserve fund

At the end of each fiscal year, the amount in the debt service reserve fund must be equal to or greater than the annual projected debt service requirement (principal amortization, interest and fees) on outstanding Master Trust Indenture obligations determined in the manner required by the Master Trust Indenture. Any additional contributions required to be made to the debt service reserve fund must, at a minimum, be made in equal instalments over the following four fiscal quarters. Funds deposited into the debt service reserve fund are held by a Trustee in high-quality short-term money market instruments and are released only to pay principal, interest and fees owing in respect of outstanding borrowings under the Master Trust Indenture except that, provided no event of default has occurred and is continuing, surplus funds may be released from time to time at the request of the Company.

Pursuant to the General Obligation Indenture (note 16), the Company is required to maintain certain liquidity levels similar to the reserve fund requirements of the Master Trust Indenture. Specifically, the Company must maintain a minimum liquidity level equal to 12 months net interest expense plus 25% of the annual operating and maintenance expenses. Liquidity is defined to include all cash and qualified investments, amounts held in the operations and maintenance and debt service reserve funds and any undrawn amounts available under a committed credit facility. In addition, the Company must maintain cash liquidity equal to 12 months net interest expense. Cash liquidity includes cash and qualified investments held in the reserve funds maintained under the Master Trust Indenture.

During fiscal 2018 and in accordance with the debt service reserve fund requirements, the Company withdrew \$25 of surplus funds from the debt service reserve fund. Included in the balance of \$71 above is \$1 of accrued interest (fiscal 2017 – \$1).

The Company met all reserve fund requirements and liquidity covenants for the year ended August 31, 2018.

11. INVESTMENT IN PREFERRED INTERESTS OF AIREON

In November 2012, the Company entered into agreements (the November 2012 agreements) setting out the terms of its participation in Aireon. Aireon's mandate is to provide global satellite-based surveillance capability for ANSPs around the world through Automatic Dependent Surveillance-Broadcast (ADS-B) receivers built as an additional payload on the Iridium Communications Inc. (Iridium) NEXT satellite constellation. It is expected that Iridium's launch schedule will enable Aireon to commence operations in calendar 2019.

In December 2013, the November 2012 agreements were amended (the December 2013 agreements) to provide for the making of an aggregate investment of \$120 U.S. (\$156 CDN) in Aireon by three additional major ANSPs, namely ENAV (Italy), the Irish Aviation Authority (IAA), and Naviair (Denmark).

In May 2018, the December 2013 agreements were amended (the May 2018 agreements) to provide for the making of an investment of \$69 U.S. (\$90 CDN) in Aireon by NATS, the United Kingdom's ANSP.

As at August 31, 2018, the Company's investment in Aireon is \$150 U.S. (\$196 CDN) (August 31, 2017 – \$150 U.S. (\$187 CDN)). Following the entering into of the May 2018 agreements, the Company is represented by five out of the eleven directors on Aireon's board of directors.

In accordance with the May 2018 agreements, a portion of Iridium's existing common equity interest in Aireon will be redeemed for a payment from Aireon of \$120 U.S. (\$156 CDN) to finalize the ownership interests of all of Aireon's investors. Upon this redemption and the related conversion of all preferred interests into common equity interests, NAV CANADA will hold 45.3% of the fully diluted common equity interests of Aireon (51% prior to the NATS investment), ENAV and NATS will each hold 11.1%, and each of IAA and Naviar will hold 5.3%, with the remaining 21.8% being retained by Iridium. This redemption is expected to occur by August 31, 2021.

As at August 31, 2018, the Company's total fully diluted common equity interest on a post conversion basis and prior to the redemption by Iridium is 37.2% (August 31, 2017 – 40.9%).

The Company's investment in preferred interests of Aireon provides for a 5% annual cumulative dividend (except for the \$40 U.S. (\$52 CDN) second stage investment that provides for a 10% annual cumulative dividend), calculated from the date of issuance. The preferred interests are redeemable for cash in three annual instalments beginning in January 2021 in the event the preferred interests have not been converted to common equity or redeemed by that time. The cash payments for these mandatory redemptions will include any unpaid dividends.

The Company may at any time and from time to time elect to convert all or a portion of its preferred interests in Aireon into common equity interests.

As long as the conversion feature remains unexercised, the Company's investment in preferred interests does not give the Company any rights to the residual net assets of Aireon and accordingly the investment is accounted for as a financial instrument classified and measured at FVTPL.

Upon the initial investment by ENAV, IAA and Naviar in February 2014, the price paid by these three investors for preferred interests in Aireon with substantially the same characteristics was considered to be a reliable estimate of the fair value of Aireon. The Company used this valuation to measure the fair value of its investment in Aireon from that date up to and as at August 31, 2017. Following the investment by NATS in May 2018, the Company has used the price paid by NATS for an investment in preferred interests in Aireon to determine the fair value of its investment as at August 31, 2018, as it was determined that this represents the best estimate of fair value (note 17).

The Company's deferred tax assets and liabilities at August 31, 2018 relate to its investment in Aireon held in one of the Company's wholly owned subsidiaries. Aireon is a limited liability company that is headquartered in the United States and is treated as a partnership for U.S. federal income tax purposes, and therefore is generally not subject to income taxes directly. Rather, the Company, Iridium and the additional investors are each allocated a portion of Aireon's taxable income (loss) based on their respective tax basis interests in Aireon's income or loss under U.S. tax regulations. In December 2017, the U.S. government passed legislation to reduce the federal corporate income tax rate from 35% to 21%. The Company's net deferred tax liability as at August 31, 2018 reflects this new rate. The Company has recognized deferred tax liabilities amounting to \$46 U.S. (\$60 CDN) (August 31, 2017 – \$68 CDN) primarily due to the increase in the fair value of the Company's investment in Aireon. The Company has recognized deferred tax assets amounting to \$8 U.S. (\$11 CDN) (August 31, 2017 – \$13 CDN) for operating losses and research and development expenses carried forward that have been allocated to the Company's subsidiary. The recognition of deferred tax assets is based on management's assessment that their realization is probable. The operating losses carried forward will begin to expire in calendar year 2033. The deferred tax assets and liabilities are presented net on the consolidated statement of financial position as a deferred tax liability as noted in the table below.

11. INVESTMENT IN PREFERRED INTERESTS OF AIREON (CONTINUED)

The table below shows the impact of the Company's investment in preferred interests of Aireon and the impact of the use of regulatory accounting on the Company's statement of financial position:

	August 31 2018	August 31 2017
Current assets		
Accounts receivable and other	\$ -	\$ 5
Investment in preferred interests	418	350
Deferred tax liability	(49)	(55)
Financial position impact of the investment in preferred interests of Aireon before regulatory accounting	\$ 369	\$ 300
Regulatory deferral account debit balances		
Deferred regulatory income tax liability	\$ 49	\$ 55
Regulatory deferral account credit balances		
Cumulative change in fair value of the investment in preferred interests	\$ (253)	\$ (185)
Net financial position impact of the investment in preferred interest of Aireon after regulatory accounting	\$ 165	\$ 170

The net impact on the financial position of the Company's investment in preferred interests of Aireon after regulatory accounting reflects the actual amounts paid for the Company's investment in Aireon (at the exchange rates prevailing on the dates of the transactions).

The use of regulatory deferral accounts defers the accounting recognition of transactions related to the Company's investment in Aireon on the Company's consolidated statement of operations. As a result, there is no net impact on the Company's consolidated statement of operations for the year ended August 31, 2018 related to the Company's investment in Aireon. These amounts are not considered for rate setting purposes until realized in cash through the receipt of dividends net of tax.

Aireon is in start-up phase without any operations, with minimal revenue and the majority of its expenditures being capitalized.

On February 28, 2018, the Company entered into an agreement with Aireon to provide bridge financing, up to a total of \$29 U.S. (\$38 CDN), with an annual interest rate of 11%. Amounts drawn under the agreement are to be repaid on the earlier of September 30, 2019 and the date on which the initial funding under a senior credit facility is made. As at August 31, 2018, Aireon has drawn \$7 U.S. (\$10 CDN) under the agreement.

Aireon's fiscal year end is December 31. IAS 28 limits the difference between the end of the reporting period of an associate or joint venture and that of the investor to no more than three months and requires adjustment to the results for any significant transactions that occur during the intervening period. The Company has chosen a two month lag period and therefore the August 31, 2018 and August 31, 2017 information presented below is based on Aireon's financial position and financial performance as at June 30, 2018 and June 30, 2017, respectively. All amounts are translated from U.S. dollars.

Aireon's financial information as at and for the year ended August 31, 2018 reflects the adoption of IFRS 9. No significant transactions occurred during the intervening periods that were necessary to adjust for in Aireon's financial information presented as at and for the year ended August 31, 2018.

	August 31 2018	August 31 2017
Current assets		
Cash and cash equivalents	\$ 81	\$ 65
Prepaid expenses and other current assets	20	14
Non-current assets		
Property, plant and equipment	582	488
	\$ 683	\$ 567
Current liabilities		
Trade and other payables	\$ (7)	\$ (8)
Deferred revenue	(2)	-
Non-current liabilities		
Investor bridge loan	(15)	-
Financial liabilities	(863)	(670)
	\$ (887)	\$ (678)
Net assets	\$ (204)	\$ (111)

	Years ended August 31	
	2018	2017
Interest expense	\$ 31	\$ 10
Net loss	\$ (106)	\$ (23)
Other comprehensive loss	(3)	-
Total comprehensive loss	\$ (109)	\$ (23)

12. EMPLOYEE BENEFITS

The Company maintains defined benefit plans that provide pension and other post-employment benefits to employees. Long-term employee benefit plans provide accumulating sick leave benefits (vested and non-vesting), LTD benefits and long-term executive incentive plan benefits. Pension (other than the supplemental pension plan) and LTD benefits are funded. Other post-employment benefits and other long-term employee benefits are not funded. The Company has recorded net defined pension and other post-employment benefits expenses as follows for the years ended August 31:

	Pension benefit plans		Other benefit plans	
	2018	2017	2018	2017
Statement of operations				
Current service costs	\$ 177	\$ 176	\$ 5	\$ 6
Curtailment (gain) expense	-	-	(1)	11
Interest cost	244	228	8	8
Interest income on plan assets	(200)	(182)	-	-
Total expense	\$ 221	\$ 222	\$ 12	\$ 25
Statement of other comprehensive income				
Re-measurements:				
Return on plan assets, excluding interest income on plan assets	\$ (306)	\$ (64)	\$ -	\$ -
Actuarial gains	(280)	(141)	(14)	(4)
Total income recognized in other comprehensive income	\$ (586)	\$ (205)	\$ (14)	\$ (4)

Net interest costs relating to employee benefits of \$54 for the year ended August 31, 2018 (fiscal 2017 – \$55) are comprised of interest costs and interest income on plan assets as noted above for pension benefit plans and other benefits plans, including an additional \$2 (fiscal 2017 – \$1) of interest costs related to long-term sick leave benefits.

During fiscal 2017, the Company recorded a curtailment expense on its severance benefits of \$11 which is included in salaries and benefits expense. The \$42 cash settlement of curtailed severance benefits occurred in fiscal 2018. The curtailment expense resulted from collective agreement amendments for three of the Company's unions. For two of the unions, future eligibility to the Company's severance plan is eliminated for represented employees who so elect cash settlement on a voluntary basis. For one union, future eligibility to the Company's severance plan is eliminated for all represented employees.

The balances of employee benefits recorded on the consolidated statement of financial position are as follows:

	August 31 2018	August 31 2017
Recognized asset for long-term disability benefits	\$ 2	\$ 11

	August 31 2018	August 31 2017
Present value of funded defined benefit obligations	\$ (6,740)	\$ (6,794)
Fair value of plan assets	6,033	5,596
Liability for funded defined benefit obligations	\$ (707)	\$ (1,198)
Liability for unfunded pension defined benefit obligations	(124)	(97)
Liability for unfunded other defined benefit obligations	(195)	(246)
Recognized liability for defined benefit plans	(1,026)	(1,541)
Long-term employee benefit liabilities	(44)	(45)
Total long-term employee benefit liabilities	\$ (1,070)	\$ (1,586)

The most recent actuarial funding valuations were carried out as at January 1, 2018.

The Company has determined that in accordance with:

- the terms and conditions of the funded defined benefit pension plans,
- statutory requirements (such as minimum funding requirements, the ability to take contribution holidays, and the ability to use letters of credit to secure solvency special payments revealed by funding actuarial valuations), and
- the assumptions and methodology adopted to calculate the economic benefit available,

the present value of reductions in future contributions is not lower than the balance of the total fair value of the plan assets plus any minimum funding requirement in respect of past service less the total present value of obligations. As such, no increase in the defined benefit liability is necessary as at August 31, 2018 and August 31, 2017.

(a) Characteristics of defined benefit plans

The Company has established and maintains defined benefit pension plans for its employees. The plans provide benefits based on age, length of service and best average earnings. Employee contribution rates vary by position and by plan. The Company is the administrator and sponsoring employer for two registered defined benefit pension plans that are funded. In addition, the Company maintains a Supplemental Retirement Plan (the Supplemental Plan) that is not funded. The Company's net obligation in respect of the defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value.

- The NAV CANADA Pension Plan (the Plan) was established on November 1, 1996 to provide pension benefits to the employees of the Company. The Plan was established pursuant to an agreement with the Federal Government to provide continuity of pension and other benefits to the employees who transferred to the Company from the public service.

12. EMPLOYEE BENEFITS (CONTINUED)

(a) Characteristics of defined benefit plans (continued)

The Plan is a defined benefit plan covering substantially all salaried employees of the Company. The Plan is registered under the federal *Pension Benefits Standards Act, 1985 (PBSA)*. Effective January 1, 2009, the Plan consists of two parts: Part A is the contributory part that provides benefits under the original plan, and Part B is the non-contributory part provided to (a) all new management hires on a mandatory basis after January 1, 2009, (b) effective January 1, 2014, to new hires represented by six of eight unions, (c) effective October 1, 2014 and effective December 1, 2014, respectively, to all new represented hires of the remaining two unions. Prior to these effective dates, participation in Part B was voluntary for employees represented by these unions.

Under the Plan, contributions are made by the Plan members (Part A only) and the Company, which is the Plan sponsor. Part A Plan members contribute at predetermined rates. The Company is required to contribute the balance of the funding necessary for Part A and Part B to ensure that benefits will be fully provided. The determination of the value of these benefits is made on the basis of an annual actuarial valuation for funding purposes performed as at January 1.

The Plan provides, under both Part A and Part B, a benefit based on pensionable service and the average of the best six years' pensionable earnings (five years for members represented by CATCA/Unifor) prior to retirement or termination. Pensionable benefits are reduced at age 65 due to CPP/QPP integration. The two plan parts have different calculation formulas that include benefit entitlement, CPP/QPP integration and early retirement reductions. A separate Supplemental Plan has been implemented by the Company to provide for benefits that exceed the maximum amount allowable under the ITA for registered pension plans.

Pensions are fully indexed during retirement to increases in the Consumer Price Index for Part A members and on an ad-hoc basis for Part B members.

The investment objective of the Plan is to provide for the security of the promised benefits under the Plan at a reasonable cost to the members and the Company. In order to achieve this objective, the Plan has adopted a Liability-Driven Investment (LDI) strategy. The strategy aims to reduce and manage the interest rate and inflation risk mismatch between the Plan's assets and liabilities and to balance the risk/reward trade-offs in the selection of a long-term asset mix.

- (ii) The Company also maintains the NAV CANADA Executive Pension Plan which is a non-contributory defined benefit plan covering senior executive employees of the Company. This plan is also registered under the PBSA. Members are neither required nor permitted to make contributions to the Plan, other than direct rollover contributions on admission to the Plan or remittances by members to purchase remaining eligible pensionable service under the members' former registered pension plan (prior service buy back). Contributions are made by the Company, the Plan sponsor. The Company is required to contribute the funding necessary to ensure that benefits will be fully provided. The determination of the contribution level is made on the basis of an annual actuarial valuation for funding purposes.
- (iii) The Company also provides other post-employment benefits for its employees including certain health care, life insurance and retiring allowance benefits to eligible retirees and their eligible dependents. Other post-employment benefits are not funded.

Benefit payments for the two defined benefit pension plans are made from trustee administered funds, and benefit payments for the unfunded Supplemental Plan and other post-employment benefit plans are met by the Company as the benefit payment obligations come due. The defined benefit plans' assets are held in trust and are governed by PBSA regulations. The Pension Committee, a committee of the Board, oversees the investment management of the plans' assets and administration of the Company's retirement plans, which include the Company's two registered pension plans and the Supplemental Plan.

(b) Pension plan funding requirements

Actuarial valuations for pension funding purposes are performed annually as at January 1 and are required to be filed with the Office of the Superintendent of Financial Institutions Canada (OSFI) by June of the same year. Accordingly, going concern pension contributions for the annual period beginning July 1, 2018 are based on the January 1, 2018 actuarial valuations, with a retroactive adjustment to the beginning of the calendar year. The regulations governing the funding of federally regulated pension plans require actuarial valuations to be performed on both a going concern and a solvency basis. The actuarial valuations performed as at January 1, 2018 reported a going concern surplus of \$503 (2017 – \$242). A statutory solvency surplus of \$561 was reported as at January 1, 2018 (2017 – \$334) based on the assumption that the September 1, 2016 plan text restatement, which included the plan termination amendment that is currently subject to OSFI’s review, was in effect on the valuation date. Had the amendment not been included, there would have been a statutory solvency deficiency of \$89 as of January 1, 2018 (2017 – \$289).

During fiscal 2018, the Company has funded its calendar 2018 solvency funding requirements of \$18 with letters of credit which satisfies cumulative pension solvency funding requirements on a pre-amendment basis. Solvency contributions will continue to be determined on a pre-amendment basis while discussions with OSFI are ongoing.

The Company’s contributions to its defined benefits plans were as follows:

	Years ended August 31	
	2018	2017
Funded pension plan		
Going concern current service costs	\$ 97	\$ 91
Solvency deficiency payments	-	44
	97	135
Unfunded pension plan	2	2
Unfunded other defined benefit plans	7	7
Settlement of curtailed severance benefits	42	-
Less: capitalized amounts	(5)	(4)
	\$ 143	\$ 140

On a preliminary basis, going concern pension contributions for fiscal 2018 are estimated to be \$97 with no requirement for cash special payments expected.

The funding period for solvency deficiencies is five years and past deficits are consolidated on a permanent basis for establishing solvency special payments, resulting in a fresh start every year. Funding of solvency deficits is based on an average of solvency ratios over the three most recent consecutive years (statutory solvency deficiency).

The Company has the option of meeting its pension solvency funding requirements with letters of credit or cash contributions. Pension funding regulations came into effect in April 2011 permitting solvency special payments to be replaced by letters of credit provided the total value of the letters of credit does not exceed 15% of the pension plan’s assets. These regulations were amended in June 2017 permitting the letters of credit maximum to be based on 15% of solvency liabilities instead of assets. As at August 31, 2018, the Company has put in place letters of credit totaling \$495 to meet its cumulative pension solvency funding requirements on a pre-amendment basis. Outstanding letters of credit represent 9% of solvency liabilities on a post-amendment basis and 8% on a pre-amendment basis.

The amount of required Company contributions and additional letters of credit in future years will be dependent on the investment experience of plan assets, the discount rates and other assumptions that will be used in future actuarial valuations to determine plan liabilities, as well as any changes in pension plan design or funding requirements that may be enacted.

12. EMPLOYEE BENEFITS (CONTINUED)

(c) Movements in defined pension benefit plans and other post-employment employee benefits plans

The movement in the defined benefit pension plans and other post-employment employee benefits plans as at August 31 was as follows:

	Pension benefit plans		Other benefit plans	
	2018	2017	2018	2017
Change in benefit obligations				
Defined benefit obligations at August 31, prior year	\$ 6,891	\$ 6,789	\$ 246	\$ 233
Benefits paid	(202)	(193)	(49)	(8)
Plan participants' contributions	34	32	-	-
Current service cost	177	176	5	6
Interest cost	244	228	8	8
Curtailment (gain) expense	-	-	(1)	11
Actuarial loss (gain) from change in demographic assumptions	(36)	-	1	-
Actuarial gain from change in financial assumptions	(255)	(117)	(9)	(4)
Actuarial loss (gain) arising from experience adjustments	11	(24)	(6)	-
Defined benefit obligations at August 31	\$ 6,864	\$ 6,891	\$ 195	\$ 246
Change in plan assets				
Fair value of plan assets at August 31, prior year	\$ 5,596	5,374	\$ -	-
Return on plan assets, excluding interest income	306	64	-	-
Interest income	200	182	-	-
Employer contributions	99	137	7	7
Settlement of curtailed severance benefits	-	-	42	-
Plan participants' contributions	34	32	-	-
Benefits paid	(202)	(193)	(49)	(7)
Fair value of plan assets at August 31	6,033	5,596	-	-
Net defined benefit liability	\$ (831)	\$ (1,295)	\$ (195)	\$ (246)
Liability for unfunded defined benefit obligations at August 31	\$ (124)	\$ (97)	\$ (195)	\$ (246)
Liability for funded defined benefit obligations at August 31	\$ (707)	\$ (1,198)	\$ -	\$ -

(d) Fair value measurement of pension plan assets

The composition of the plan assets by major category of the Company's two funded pension plans is as follows:

	August 31, 2018		August 31, 2017	
	Quoted market price in an active market	No quoted market price in an active market	Quoted market price in an active market	No quoted market price in an active market
Equities	29%	7%	30%	9%
Fixed income ⁽¹⁾	2%	35%	2%	33%
Real assets	0%	15%	0%	14%
Absolute return strategies	0%	6%	1%	6%
Private debt	0%	5%	0%	5%
Cash and cash equivalents	1%	0%	0%	0%
	32%	68%	33%	67%

⁽¹⁾ The LDI strategy (discussed in (g) below) is comprised of a 2:1 leveraged portfolio of long Canadian nominal and real return bonds. Leverage is achieved largely through the use of sale and repurchase agreements. As of August 31, 2018, the strategy represented 26% of net plan assets with leverage providing an additional 25% exposure (fiscal 2017 – 26%).

(e) Actuarial assumptions

Principal actuarial assumptions (expressed as weighted averages) are as follows:

	Funded plans		Unfunded plans	
	August 31 2018	August 31 2017	August 31 2018	August 31 2017
Real discount rate, defined benefit obligations	3.80%	3.60%	3.78%	3.52%
Real discount rate, defined benefit expense	3.60%	3.40%	3.52%	3.32%
Future salary increases	3.30%	3.40%	3.30%	3.40%
Medical cost trend rate	N/A	N/A	5.00%	5.00%
Inflation	2.00%	2.00%	2.00%	2.00%

The average rate of salary increases is expected to be equal to the rate of inflation with an adjustment for merit and productivity gains. An increase of 5.0% in drug and other health benefit cost was assumed for fiscal 2018 and all years thereafter.

12. EMPLOYEE BENEFITS (CONTINUED)

(e) Actuarial assumptions (continued)

Assumptions regarding future mortality are based on published statistics and mortality tables. As at August 31, longevities (in years) underlying the values of the liabilities in the defined benefit plans are as follows:

	2018	2017
Longevity at age 65 for current pensioners		
Males	22.9	22.8
Females	24.7	24.7
Longevity at age 65 for current members age 45		
Males	23.9	23.8
Females	25.7	25.6

As at the annual measurement date of August 31, 2018, the weighted-average duration of the defined benefit obligation was 18.1 years (August 31, 2017 – 18.7 years).

(f) Sensitivity analysis

In the sensitivity analysis shown below, the defined benefit obligation is determined using the same method used to calculate the defined benefit obligation recognized in the statement of financial position. The assumptions used are the weighted average rates. The method used is consistent between all periods presented. The sensitivity is calculated by changing one assumption (or set of assumptions, in relation to the assumptions for salary, indexation and government benefit increases) while holding the others constant. The actual change in defined benefit obligation will likely be different from that shown in the table, since it is likely that more than one assumption considered independently will change, and that some assumptions are correlated.

	Change in assumption + or -	Defined benefit obligation		Benefit cost	
		Assumption increase	Assumption decrease	Assumption increase	Assumption decrease
Real discount rate	0.25%	\$ (307)	\$ 328	\$ (24)	\$ 26
Salary, indexation, government benefit increases	0.25%	\$ 309	\$ (290)	\$ 25	\$ (23)
Health care trend rate	1%	\$ 24	\$ (19)	\$ 1	\$ (1)
Longevity (in years) for those currently aged 65	1 year	\$ 198	\$ (201)	\$ 12	\$ (12)

(g) Risks associated with the defined benefit plans

The nature of these benefit obligations exposes the Company to a number of risks, the most significant of which is funding risk. Funding risk can be expressed as the probability of an unusually high level of required pension contributions or significant fluctuation in required pension contributions.

Adverse changes in the value of plan assets of funded plans, long-term return and inflation expectations, interest rates and life expectancy could have a significant impact on pension funding requirements. The funded plan invests in assets that expose it to a range of investment risks. It has strategies, policies and processes in place to manage these risks. More specifically, funding risk is managed as follows:

- (i) interest rate and inflation risks are managed via implementation of a LDI strategy that focuses on reducing the interest rate and inflation risk mismatch between the plan assets and its pension benefit obligations; and
- (ii) market risk, credit risk and liquidity risk related to the plan assets are managed through diversification amongst different asset classes, securities, risk factors and geographies while adhering to established investment policies and guidelines.

13. INVESTMENT IN EQUITY-ACCOUNTED INVESTEE

Searidge is a privately-held corporation that provides software development and technology solutions in support of the air traffic control and airport operations market.

The Company owns 50% of the issued and outstanding shares of Searidge (August 31, 2017 – 50%).

The Company has determined that its 50% interest in Searidge gives rise to joint control based on the contractual terms of the arrangement that requires unanimous consent of all parties involved in key decisions over relevant activities. The Company has classified its investment as a joint venture as the Company has an interest in the net assets of Searidge based on the legal form and substance of the arrangement.

As at August 31, 2018, the carrying value of the Company’s investment in Searidge was determined as follows:

Balance, August 31, 2017	\$ 7
Share of net loss of equity-accounted investee	(1)
Balance, August 31, 2018	\$ 6

14. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment (PP&E) were comprised of the following:

	Land and buildings	Systems and equipment	Assets under development	Total
Cost				
Balance at August 31, 2016	\$ 201	\$ 555	\$ 73	\$ 829
Additions	-	-	129	129
Derecognition ⁽¹⁾	-	(1)	-	(1)
Disposals	-	(2)	-	(2)
Transfers	26	74	(100)	-
Balance at August 31, 2017	\$ 227	\$ 626	\$ 102	\$ 955
Balance at August 31, 2017	\$ 227	\$ 626	\$ 102	\$ 955
Additions	-	-	117	117
Disposals ⁽²⁾	(3)	(29)	-	(32)
Transfers	42	31	(73)	-
Balance at August 31, 2018	\$ 266	\$ 628	\$ 146	\$ 1,040
Accumulated depreciation				
Balance at August 31, 2016	\$ 26	\$ 139	\$ -	\$ 165
Depreciation	13	73	-	86
Derecognition ⁽¹⁾	-	(1)	-	(1)
Balance at August 31, 2017	\$ 39	\$ 211	\$ -	\$ 250
Balance at August 31, 2017	\$ 39	\$ 211	\$ -	\$ 250
Depreciation	15	72	-	87
Disposals ⁽²⁾	(3)	(29)	-	(32)
Balance at August 31, 2018	\$ 51	\$ 254	\$ -	\$ 305
Carrying amounts				
At August 31, 2017	\$ 188	\$ 415	\$ 102	\$ 705
At August 31, 2018	\$ 215	\$ 374	\$ 146	\$ 735

⁽¹⁾ Derecognition is a result of the deconsolidation of the Company's investment in Searidge. See note 13.

⁽²⁾ Disposals primarily relating to obsolete assets with nil net book value.

15. INTANGIBLE ASSETS

Intangible assets were comprised of the following:

	Air navigation right	Purchased software	Internally developed software	Assets under development	Goodwill	Total
Cost						
Balance at August 31, 2016	\$ 702	\$ 158	\$ 168	\$ 33	\$ 4	\$ 1,065
Additions	-	-	-	42	-	42
Derecognition ⁽¹⁾	-	-	-	-	(4)	(4)
Transfers	-	7	25	(32)	-	-
Balance at August 31, 2017	\$ 702	\$ 165	\$ 193	\$ 43	\$ -	\$ 1,103
Balance at August 31, 2017	\$ 702	\$ 165	\$ 193	\$ 43	\$ -	\$ 1,103
Additions	-	-	-	68	-	68
Disposals ⁽²⁾	-	(8)	(1)	(1)	-	(10)
Transfers	-	13	37	(50)	-	-
Balance at August 31, 2018	\$ 702	\$ 170	\$ 229	\$ 60	\$ -	\$ 1,161
Accumulated amortization						
Balance at August 31, 2016	\$ 50	\$ 34	\$ 28	\$ -	\$ -	\$ 112
Amortization	25	19	17	-	-	61
Balance at August 31, 2017	\$ 75	\$ 53	\$ 45	\$ -	\$ -	\$ 173
Balance at August 31, 2017	\$ 75	\$ 53	\$ 45	\$ -	\$ -	\$ 173
Amortization	25	19	21	-	-	65
Disposals ⁽²⁾	-	(8)	(1)	-	-	(9)
Balance at August 31, 2018	\$ 100	\$ 64	\$ 65	\$ -	\$ -	\$ 229
Carrying amounts						
At August 31, 2017	\$ 627	\$ 112	\$ 148	\$ 43	\$ -	\$ 930
At August 31, 2018	\$ 602	\$ 106	\$ 164	\$ 60	\$ -	\$ 932

⁽¹⁾ Derecognition is a result of the deconsolidation of the Company's investment in Searidge.

⁽²⁾ Disposals primarily relating to obsolete intangible assets with nil net book value.

16. LONG-TERM DEBT

This note provides information about the contractual terms of the Company's interest-bearing loans and borrowings, which are measured at amortized cost. For more information about the Company's exposure to interest rate and liquidity risk, see note 17.

Because NAV CANADA is a non-share capital corporation, the Company's initial acquisition of the ANS and its ongoing requirements are financed with debt. Until February 21, 2006, all indebtedness was incurred and secured under a Master Trust Indenture that provided the Company with a maximum borrowing capacity, which declines each year. On February 21, 2006, the Company entered into a new indenture (the General Obligation Indenture) that established an unsecured borrowing program that qualifies as subordinated debt under the Master Trust Indenture. The borrowing capacity under the General Obligation Indenture does not decline each year. In addition, there is no limit on the issuance of notes under the General Obligation Indenture so long as the Company is able to meet an additional indebtedness test.

(a) Security

The Master Trust Indenture established a borrowing platform secured by an assignment of revenue and the debt service reserve fund. The General Obligation Indenture is unsecured, but provides a set of positive and negative covenants similar to those of the Master Trust Indenture. In addition, under the terms of the General Obligation Indenture, no further indebtedness may be incurred under the Master Trust Indenture; furthermore, the amount of the Company's \$675 syndicated bank credit facility (note 17 (c)) that is secured under the Master Trust Indenture is limited to the declining amount of outstanding bonds issued under the Master Trust Indenture. At August 31, 2018, this amount is \$475 and will decline by \$25 on March 1 of every year in conjunction with the annual principal repayment of the series 97-2 amortizing bonds. The remaining \$200 of the \$675 credit facility ranks *pari passu* to the borrowings under the General Obligation Indenture and will increase by \$25 on March 1 of each year to offset the decline in the amount secured under the Master Trust Indenture. The \$475 portion of the credit facility along with the \$250 series 96-3 bonds and \$225 series 97-2 bonds gives a total of \$950 of indebtedness secured under the Master Trust Indenture and ranking ahead of General Obligation Indenture debt.

As bonds mature or are redeemed under the Master Trust Indenture, they may be replaced with notes issued under the General Obligation Indenture. Borrowings under the General Obligation Indenture are unsecured and repayment is subordinated and postponed to prior payment of Master Trust Indenture obligations unless the Company can meet an additional indebtedness test.

(b) Debt

The Company's outstanding debt was comprised of the following:

	August 31 2018	August 31 2017
Bonds and notes payable		
Issued under the Master Trust Indenture:		
\$250 face value 7.40% revenue bonds, series 96-3, maturing June 1, 2027	\$ 250	\$ 250
\$500 initial face value 7.56% amortizing revenue bonds, series 97-2, maturing March 1, 2027	225	250
	475	500
Issued under the General Obligation Indenture:		
\$275 face value 3.293% general obligation notes, series MTN 2018-1, maturing March 30, 2048 ⁽¹⁾	275	-
\$250 face value 3.534% general obligation notes, series MTN 2016-1, maturing February 23, 2046	250	250
\$250 face value 4.397% general obligation notes, series MTN 2011-1, maturing February 18, 2021	250	250
\$250 face value 5.304% general obligation notes, series MTN 2009-1, maturing April 17, 2019 ⁽²⁾	250	250
\$350 face value 1.949% general obligation notes, series MTN 2013-1, matured April 19, 2018 ⁽¹⁾	-	350
	1,025	1,100
Total bonds and notes payable	1,500	1,600
Adjusted for deferred financing costs and discounts	(6)	(5)
Carrying value of total bonds and notes payable	1,494	1,595
Less: current portion of long-term debt ⁽³⁾	(275)	(375)
Total long-term debt	\$ 1,219	\$ 1,220

⁽¹⁾ On March 29, 2018, the Company issued the \$275 Series MTN 2018-1 General Obligation Notes. The notes have an annual interest rate of 3.293%. The proceeds of these notes were used to partially repay the Company's \$350 Series MTN 2013-1 General Obligation Notes on April 19, 2018. The remainder of the maturity was repaid with available cash and by drawing on the Company's syndicated credit facility.

⁽²⁾ On December 16, 2016, the Company redeemed \$100 of its outstanding \$350 Series MTN 2009-1 General Obligation Notes. The Company paid a redemption premium related to the early partial-redemption. This premium of \$10 has been expensed in other finance costs (note 6) for the year ended August 31, 2017 in the consolidated statement of operations.

⁽³⁾ The current portion of long-term debt relates to the \$250 Series MTN 2009-1 General Obligation Notes that mature in April 2019 and the annual amortization payment of \$25 for the Series 97-2 amortizing revenue bonds.

The bonds and notes payable are redeemable in whole or in part at the option of the Company at any time at the higher of par and the Canada yield price plus a redemption premium. The Series 97-2 bonds are amortizing bonds repayable in 20 consecutive equal annual instalments of \$25 principal on March 1 of each year until maturity on March 1, 2027.

The Company is in compliance with all covenants of the Master Trust Indenture and General Obligation Indenture as at August 31, 2018.

17. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

Summary of financial instruments

Financial instruments recorded at fair value on the consolidated statement of financial position are classified using a fair value hierarchy that reflects the observability of the inputs used in making the measurements. The fair value hierarchy has the following levels:

- Level 1 Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date.
- Level 2 Inputs other than quoted prices included within Level 1 that are observable for the assets or liabilities either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 Inputs for the assets or liabilities that are not based on observable market data (unobservable inputs).

The Company recognizes transfers between levels of the fair value measurement hierarchy at the beginning of the fiscal year in which the change occurs.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is an exit price, regardless of whether that price is directly observable or estimated using another valuation technique. The calculation of estimated fair value is based on market conditions at a specific point in time and therefore may not be reflective of future fair values.

The following table presents the carrying amount of the Company's financial instruments, by classification category and includes the fair value hierarchy classification for each financial instrument. Excluding long-term debt, the carrying amount approximates the fair value for all of the Company's financial instruments.

	August 31, 2018		Fair value hierarchy
	Amortized cost	FVTPL	
Financial assets			
Cash and cash equivalents ⁽¹⁾	\$ 38	\$ -	
Accounts receivable and other	102	-	
Current investments			
Debt service reserve fund ⁽²⁾	71	-	
Other current assets			
Derivative assets ⁽³⁾	-	3	Level 2
Investment in preferred interests ⁽⁴⁾	-	418	Level 2
Other non-current assets			
Related party loans receivable ⁽⁵⁾	12	-	
Long-term receivables	1	-	
	\$ 224	\$ 421	
Financial liabilities			
Trade and other payables			
Trade payables and accrued liabilities	244	-	
Long-term debt (including current portion)			
Bonds and notes payable ⁽⁶⁾	1,494	-	Level 2
	\$ 1,738	\$ -	

The Company adopted IFRS 9 on September 1, 2017 and has applied IFRS 9 retrospectively, but has elected not to restate comparatives in accordance with transition requirements. The following table presents the carrying amount of the Company's financial instruments, by classification category as at August 31, 2017 in accordance with IAS 39 and the Company's previous accounting policy:

	August 31, 2017				Fair value hierarchy
	L&R	AFS	FVTPL	Other financial liabilities	
Financial assets					
Cash and cash equivalents ⁽¹⁾	\$ 222	\$ -	\$ -	\$ -	
Accounts receivable and other	102	-	-	-	
Current investments					
Debt service reserve fund ⁽²⁾	-	95	-	-	Level 1
Investment in preferred interests ⁽⁴⁾	-	-	350	-	Level 3
Other non-current assets					
Related party loans receivable ⁽⁵⁾	2	-	-	-	
Long-term receivables	1	-	-	-	
	\$ 327	\$ 95	\$ 350	\$ -	
Financial liabilities					
Trade and other payables					
Trade payables and accrued liabilities	\$ -	\$ -	\$ -	\$ 227	
Derivative liabilities ⁽³⁾	-	-	1	-	Level 2
Long-term debt (including current portion)					
Bonds and notes payable ⁽⁶⁾	-	-	-	1,595	Level 2
Long-term derivative liabilities ⁽³⁾	-	-	12	-	Level 2
	\$ -	\$ -	\$ 13	\$ 1,822	

⁽¹⁾ Cash and cash equivalents includes \$15 of short-term investments as at August 31, 2018 (August 31, 2017 – \$79).

⁽²⁾ During the year ended August 31, 2018, the Company withdrew \$25 of surplus funds from the debt service reserve fund.

⁽³⁾ Current and non-current derivative assets and liabilities are recorded at fair value determined using prevailing foreign exchange market rates and interest rates at the reporting date.

⁽⁴⁾ This instrument is recorded at fair value based on the valuation technique described in note 11.

⁽⁵⁾ During the year ended August 31, 2018, the Company provided bridge financing of \$10 to Aireon, the remaining \$2 relates to the Company's investment in Searidge. See note 11 for details.

⁽⁶⁾ As at August 31, 2018, the fair value of the Company's bonds and notes payable was \$1,678 (August 31, 2017 – \$1,835), inclusive of accrued interest of \$22 (August 31, 2017 – \$22). This fair value was determined using secondary market ask prices (Level 2 inputs) at the reporting date.

During fiscal 2018, the investment in preferred interests of Aireon was transferred from Level 3 to Level 2 of the fair value hierarchy due to the recent transaction (see note 11). There have been no other transfers between levels since August 31, 2017.

17. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT (CONTINUED)

Summary of financial instruments (continued)

The following table summarizes the changes in the fair value of the Company's investment in preferred interests of Aireon, which is classified as Level 2:

	Investment in preferred interests
Fair value as at August 31, 2017	\$ 350
Net increase in fair value ⁽¹⁾	52
Effect of foreign exchange	16
Fair value as at August 31, 2018	\$ 418

The following table summarizes the changes in the fair value of financial instruments classified as Level 3 as at August 31, 2017:

	MAV II and Ineligible Asset Tracking notes	ABCP	Investment in preferred interests	Total
Fair value as at August 31, 2016	\$ 272	\$ 7	\$ 291	\$ 570
Additional investment ⁽²⁾	-	-	36	36
Proceeds ⁽³⁾	(286)	(7)	-	(293)
Net increase in fair value ⁽¹⁾	-	-	37	37
Net increase in fair value provision	14	-	-	14
Effect of foreign exchange	-	-	(14)	(14)
Fair value as at August 31, 2017	\$ -	\$ -	\$ 350	\$ 350

⁽¹⁾ Net increase in fair value includes accrued dividend income. See note 11 for further information on the increase in fair value.

⁽²⁾ In fiscal 2017, the Company invested an additional \$30 U.S. (\$36 CDN) in preferred interests of Aireon (see note 11).

⁽³⁾ In fiscal 2017, the Company received \$285 of principal relating to the Master Asset Vehicle II (MAV II) notes and \$1 related to its investment in other notes, as well as the remaining \$7 of principal balance of the restructured ABCP.

Derivative financial instruments

From time to time, the Company holds forward dated interest rate swap agreements and bond and foreign exchange forward agreements to hedge risks from fluctuations in interest rates and foreign exchange rates. The time frame and manner in which we manage these risks varies for each item based upon our assessment of the risk and available alternatives for mitigating the risk.

Details of the derivative financial instruments for which the Company has applied hedge accounting are as follows:

August 31, 2018						
	Contract rate	Notional amount of hedging instrument in CDN	Carrying amount		Classification on statement of financial position	Changes in fair value used for calculating ineffectiveness
			Assets	Liabilities		
<i>Cash flow hedges</i>						
Foreign exchange risk						
Foreign currency forwards ⁽¹⁾	1.27472	\$ 7	\$ -	\$ -	Other assets	\$ -
Interest rate risk						
Bond forward ⁽²⁾	2.20672	\$ 190	\$ 3	\$ -	Other assets (current)	\$ 3

August 31, 2017						
	Contract rate	Notional amount of hedging instrument in CDN	Carrying amount		Classification on statement of financial position	Changes in fair value used for calculating ineffectiveness
			Assets	Liabilities		
<i>Cash flow hedges</i>						
Foreign exchange risk						
Foreign currency forward ⁽³⁾	1.10070	\$ 16	\$ -	\$ -	N/A	\$ (3)
Foreign currency forward ⁽⁴⁾	1.34383	\$ 20	\$ -	\$ -	N/A	\$ -
Interest rate risk						
Interest rate swaps ⁽⁵⁾	2.79640	\$ 175	\$ -	\$ 10	Derivative liabilities	\$ 37
Interest rate swaps ⁽⁵⁾	2.77800	\$ 25	\$ -	\$ 2	Derivative liabilities	\$ 5
Bond forward ⁽⁶⁾	1.76400	\$ 137	\$ -	\$ 1	Trade and other payables	\$ (1)

- (1) The Company holds seven forward contracts with a notional value of approximately \$1 CDN each to purchase a total of \$5 U.S. (\$7 CDN) to hedge monthly payments to Aireon related to satellite surveillance costs for February through August 2019. The contract rate shown in the table is an average of the rates for all seven forward contracts.
- (2) In June 2018, the Company settled the interest rate swap agreements at a loss of \$8 and entered into a bond forward contract to mitigate the potential impact of rising interest rates on the cost of refinancing a portion of the Company's \$250 Series MTN 2009-1 General Obligation Notes that will mature on April 17, 2019.
- (3) The Company held cash related to the hedge of the Canadian dollar cost of the fourth tranche investment in preferred interests of Aireon made in fiscal 2017. The forward contract to purchase \$15 U.S. (\$16 CDN) matured in June 2015.
- (4) The Company held a forward contract to purchase an additional \$15 U.S. (\$20 CDN) to hedge the Canadian dollar cost related to its fifth tranche investment in preferred interests of Aireon made in fiscal 2017.
- (5) As at August 31, 2017, the Company held interest rate swap agreements to hedge the cost of refinancing a portion of the Company's \$350 Series MTN 2009-1 General Obligation Notes that will mature on April 17, 2019. In June 2018, the swap agreements were settled and the Company entered into a bond forward contract as noted in (2) above.

17. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT (CONTINUED)

Derivative financial instruments (continued)

⁽⁶⁾ As at August 31, 2017, the Company held a bond forward agreement to mitigate the potential impact of rising interest rates on the cost of refinancing the \$350 Series MTN 2013-1 General Obligation Notes that matured on April 19, 2018. The bond forward agreement was closed in January 2018 as a result of changes in our refinancing plans and a new bond forward agreement was simultaneously entered into to align with the revised plan. The new bond forward agreement was closed in March 2018 upon issuance of the \$275 Series MTN 2018-1 General Obligation Notes.

The Company's hedging relationships are subject to ineffectiveness should the timing of the forecasted transaction not occur as intended or as a result of changes in counterparty risk.

The following table summarizes the hedging components of other comprehensive income for the year ended August 31:

	2018	2017
Net gain (loss) on derivatives designated as cash flow hedges		
Foreign currency forwards	\$ -	\$ (3)
Interest rate swaps	4	42
Bond forward	1	(1)
	\$ 5	\$ 38

For the years ended August 31, 2018 and 2017, the derivatives designated as cash flow hedges were considered to be fully effective and no ineffectiveness has been recognized in net income (loss).

Financial risk management

The Company is exposed to several risks as a result of holding financial instruments. The following is a description of these risks and how they are managed.

(a) Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: interest rate risk, foreign exchange risk and other price risk. The objective of market risk management is to contain market risk exposures within acceptable parameters, as set out in the Company's treasury policy that is approved by the Board.

(i) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

The following table summarizes financial assets and liabilities exposed to interest risk:

	August 31 2018	August 31 2017
Floating rate financial assets		
Cash and cash equivalents	\$ 38	\$ 222
Debt service reserve fund investments	71	95
Total floating rate financial assets	\$ 109	\$ 317
Fixed rate financial liabilities		
Bonds and notes payable	\$ 1,494	\$ 1,595

Investments included in the Company's cash and cash equivalents and debt service reserve fund earn interest at prevailing and fluctuating market rates. If interest rates decline, earnings on these instruments would fall. A 100 basis point change in variable interest rates would result in an annual difference of approximately \$1 in the Company's earnings before rate stabilization adjustments.

The Company does not account for any fixed rate financial assets or liabilities as FVTPL. Therefore the impact of a change in interest rates at the reporting date on fixed rate assets or liabilities would not affect the Company's earnings, nor its equity. As discussed in note 16, during fiscal 2017, the Company redeemed \$100 of the \$350 Series MTN 2009-1 General Obligation Notes, reducing the Company's financial liabilities exposed to interest rate risk.

Interest rate risk related to the Company's fixed-interest long-term debt relates to the re-setting of interest rates upon maturity and refinancing of the debt. The Company mitigates this source of interest rate risk by spreading maturities of borrowings over periods currently up to and including 2048 so that only a portion of outstanding debt will mature in any given fiscal year. In addition, the Company has International Swaps and Derivatives Association Agreements in place and has entered into the following hedging transactions to mitigate the impact of fluctuating interest rates on interest costs relating to the Company's long-term debt.

- Forward-dated interest rate swaps totaling \$200 to hedge the cost of refinancing the Company's \$450 Series MTN 2006-1 General Obligation Notes were entered into in June 2012 and were cash settled at a loss of \$51 in February 2016. The loss was deferred in OCI and is being reclassified to net income (loss) using the effective interest rate method over the term of the hedged Series MTN 2016-1 General Obligation Notes.
- In January 2015, the Company entered into forward-dated interest rate swap agreements totaling \$200 to hedge the cost of refinancing a portion of the Company's \$350 Series MTN 2009-1 General Obligation Notes that will mature on April 17, 2019. In June 2018, the forward-dated interest rate swaps were settled and the Company simultaneously entered into bond forward agreements. The Company incurred a loss of \$8 on the settlement of the forward-dated interest rate swaps. The Company intends to cash settle the bond forward agreements in April 2019 and offset any gain or loss at that time against a portion of the cost of refinancing the above mentioned notes.
- In August 2017, the Company entered into a bond forward transaction in the amount of \$137 in order to mitigate the potential impact of rising interest rates on the cost of refinancing the \$350 Series MTN 2013-1 General Obligation Notes that matured on April 19, 2018. The bond forward agreement was closed in January 2018 as a result of changes in our refinancing plans and a new bond forward agreement for the same amount was entered into simultaneously to align with the revised plan.

On March 29, 2018, the Company issued \$275 Series MTN 2018-1 General Obligation Notes due on March 30, 2048. The proceeds of these notes were used to partially repay the Company's Series MTN 2013-1 General Obligation Notes. The January 2018 bond forward was also closed. The Company incurred a net loss of \$2 in closing both bond forward agreements.

The Company has applied hedge accounting and is accounting for these financial instruments as cash flow hedges. The Company has not entered into any other derivative contracts to manage interest rate risk.

(ii) Foreign exchange risk

The Company is exposed to foreign exchange risk on sales and purchases that are denominated in currencies other than in the functional currency of the Company. However, the Company invoices and receives the vast majority of its revenue in Canadian dollars and also incurs operating expenses and capital expenditures primarily in Canadian dollars. In some cases, the Company uses forward foreign exchange contracts to mitigate its risk on contractual agreements in foreign currencies. The majority of the Company's exposure to foreign exchange risk relates to the U.S. dollar (USD). The Company does not have a significant exposure arising from other currencies.

17. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT (CONTINUED)

Financial risk management (continued)

(a) Market risk (continued)

(ii) Foreign exchange risk (continued)

The Company's exposure to foreign exchange risk related to the U.S. dollar is as follows:

	August 31, 2018		August 31, 2017	
	CAD	USD	CAD	USD
Financial assets				
Current				
Cash and cash equivalents	\$ 2	\$ 1	\$ -	\$ -
Accounts receivable and other	1	-	7	6
Non-current				
Investment in preferred interests	418	321	350	281
Other non-current assets	11	9	1	1
	\$ 432	\$ 331	\$ 358	\$ 288
Financial liabilities				
Current				
Trade and other payables	\$ 5	\$ 4	\$ 4	\$ 3
Derivative liabilities	-	-	1	-
	\$ 5	\$ 4	\$ 5	\$ 3
Net exposure	\$ 427	\$ 327	\$ 353	\$ 285

The Company designates certain of its forward contracts as cash flow hedging instruments to hedge the Company's exposure to the impact of exchange rate fluctuations. As at August 31, 2018, the Company has designated less than \$1 (fair value) of its forward contracts as cash flow hedging instruments.

The foreign exchange rate sensitivity is the net amount of foreign exchange rate exposure of the items at the reporting date, less foreign currency hedges.

As at August 31, 2018, if the Canadian dollar strengthened or weakened by 10% against the U.S. dollar, all other variables remaining constant, net income (loss) before net movement in regulatory deferral accounts would have been impacted by \$38 (August 31, 2017 - \$30).

(iii) Other price risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or foreign exchange risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market.

In order to mitigate the risk of losses arising from investment activities, the Company only invests in highly-rated (see credit risk discussion below) and short-term instruments, excluding Aireon.

The investment in preferred interests of Aireon (note 11) is subject to price risk. The fair value of this investment may fluctuate over time due to, among other things, economic conditions and the cash flows of Aireon. Aireon is a start-up company and any such changes in the fair value could be material. During fiscal 2018, the fair value of

the Company's investment in Aireon increased to \$418 as at August 31, 2018 (August 31, 2017 – \$350), mainly due to an increase in fair value following new investment in the preferred interests of Aireon by NATS. A change of 5% in the fair value of the investment in preferred interests would impact finance income (other finance costs) by approximately \$14 U.S. (\$18 CDN) as at August 31, 2018 (August 31, 2017 – \$12 U.S. (\$15 CDN)).

Aireon will provide global satellite-based surveillance capability for ANSPs around the world. It is expected that Aireon will commence operations in calendar year 2019.

The following risks have been identified with respect to the Company's investment in preferred interests of Aireon:

- further delays may occur;
- agreements for data sales may not reach anticipated levels or that their conclusion will be delayed; and
- short or long-term bridge financing may not be obtained.

Aireon's liquidity has been under pressure due to delays in launching the satellites on which Aireon's payloads are hosted. Aireon has secured a short-term facility with certain of its investors, of which the Company has committed \$29 U.S. (\$38 CDN). As at August 31, 2018, Aireon has drawn \$7 U.S. (\$10 CDN) (see note 11). Aireon is currently working to secure long-term financing with a major international bank. It is expected that the bridge financing will provide Aireon with sufficient liquidity until such time as the system comes into operation. Further delays however may put pressure on Aireon's liquidity, which may in turn require further bridge financing.

The Company believes the investment in preferred interests of Aireon will provide the returns it is seeking.

(b) Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The maximum credit risk to which the Company is exposed as at August 31, 2018 represents the carrying amount of cash, accounts receivable, reserve funds, investments and forward contracts to purchase or sell foreign currencies.

The debt service reserve fund and cash equivalents, when applicable, are invested in accordance with the Company's restrictive investment policy to manage credit risk. The Company invests only in short-term obligations – usually for periods of 90 days or less. The Company limits investments to obligations of the federal government, certain provincial governments, entities guaranteed by a federal or provincial government or other obligations of entities rated by at least two rating agencies in the top two categories for long-term debt or the highest category for short-term debt. The Company does not invest in instruments with exposure to underlying synthetic assets. The Company's portfolio is diversified, with dollar and percentage limits on investment counterparties. None of the Company's holdings in cash and cash equivalents or in the debt service reserve fund are past due and all have long-term ratings of either AAA or AA or short-term ratings in the highest category (DBRS – RI (high)). Based on default rates and loss ratios for investment-grade bonds with similar maturities, any loss allowance is not significant and therefore none has been recognized.

Accounts receivable are primarily short-term receivables from customers that arise in the normal course of business. The Company provides air navigation services to various aircraft operators, including Canadian and foreign commercial air carriers as well as small general aviation aircraft. Credit limits and compliance with payment terms are monitored by the Company to manage its exposure to credit loss. The Company has established a maximum credit limit of \$4 for its largest air navigation services customers, and it has other credit control measures that reduce its credit exposure. The Company's general payment terms provide for payment periods of thirty days for air navigation services and payment periods of up to forty-five days for some other types of services. Shorter payment terms are imposed where customer circumstances warrant. The Company's credit policies also require payments in advance or satisfactory security to be posted under certain circumstances.

17. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT (CONTINUED)

Financial risk management (continued)

(b) Credit risk (continued)

The Company establishes an allowance for doubtful accounts that represents its estimate of lifetime expected credit losses to be incurred in respect to accounts receivable. The Company's loss allowance is not significant and largely relates to air navigation services provided to small general aviation aircraft. As at August 31, 2018, there were no significant balances past due but not impaired and the allowance for doubtful accounts was not significant.

	August 31, 2018			August 31, 2017
	Gross balance	Loss allowance	Net balance	Net balance
0-30 days	\$ 83	\$ -	\$ 83	\$ 87
31-60 days	1	-	1	-
61-90 days	-	-	-	2
Over 91 days	-	(1)	(1)	-
Total	\$ 84	\$ (1)	\$ 83	\$ 89

(c) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's approach to managing liquidity is to evaluate current and expected liquidity requirements under both normal and stressed conditions to ensure that it maintains sufficient reserves of cash and cash equivalents or an available undrawn committed credit facility to meet its liquidity requirements in the short and longer term. Under the Company's Master Trust Indenture and General Obligation Indenture, the Company is required to maintain certain reserve funds and liquidity levels, as described in note 16.

The Company has a revolving credit facility with a syndicate of Canadian financial institutions, and separate letter of credit facilities for pension funding purposes. The credit facilities have been utilized as follows:

	August 31, 2018
Credit facilities	
Credit facility with a syndicate of Canadian financial institutions ^{(1), (2)}	\$ 675
Letter of credit facilities for pension funding purposes ⁽³⁾	515
Total available credit facilities	1,190
Less: Outstanding letters of credit for pension funding purposes ⁽³⁾	495
Less: Outstanding letters of credit for other purposes ⁽²⁾	12
Undrawn committed borrowing capacity	683
Less: Operations and maintenance reserve fund allocation ⁽⁴⁾	295
Credit facilities available for unrestricted use	\$ 388

⁽¹⁾ The Company's credit facility with a syndicate of Canadian financial institutions in the amount of \$675 is comprised of two equal tranches maturing on September 12, 2020 and September 12, 2022. Subsequent to August 31, 2018, these maturity dates were extended to September 12, 2021 and September 12, 2023. The credit facility agreement provides for loans at varying rates of interest based on certain benchmark interest rates, specifically the Canadian prime rate and the Canadian bankers' acceptance rate, and on the Company's credit rating at the time of drawdown. A utilization fee is also payable on borrowings in excess of 25% of the available facility. The Company is required to pay commitment fees, which are dependent on the Company's credit rating. The Company is in compliance with the credit facility covenants as at August 31, 2018.

- (2) At August 31, 2018, \$12 was drawn from an uncommitted revolving credit facility (including letters of credit with a value of \$2 issued on behalf of Searidge). In connection with this facility, an allocation of \$25 with a Canadian financial institution has been made under its \$675 committed credit facility.
- (3) The letter of credit facilities for pension funding purposes are comprised of four facilities with Canadian financial institutions totaling \$515 (note 12), which will mature on December 31, 2018, unless extended. At August 31, 2018, \$495 was drawn for pension solvency funding purposes.
- (4) The Company is required to maintain a reserve fund of at least 25% of its prior year's annual operating and maintenance expenses, as defined in the Master Trust Indenture. At August 31, 2018, the Company met this requirement with an allocation of \$295 in undrawn availability under its committed credit facility. If at any fiscal year end the amount in the operations and maintenance reserve fund is less than 25% of the Company's operating and maintenance expense for the year (before other regulatory deferral account adjustments, depreciation, amortization, finance costs, other comprehensive income and unusual expenses), the Company must, at a minimum, increase the balance in the fund to the required level over the following four fiscal quarters through additional contributions or an allocation of its committed credit facility. The operations and maintenance reserve fund may be used to pay operating and maintenance expenses, if required.

18. COMMITMENTS

(a) Future payments under commitments and financial liabilities

The following table presents a maturity analysis of the Company's undiscounted contractual cash flows for its financial liabilities and related party commitment as at August 31, 2018:

	Remaining payments – for years ending August 31						
	Total	2019	2020	2021	2022	2023	Thereafter
Trade payables and accrued liabilities	\$ 222	\$ 222	\$ -	\$ -	\$ -	\$ -	\$ -
Long-term debt (including current portion) ^{(1), (2)}	1,500	275	25	275	25	25	875
Interest payments ⁽²⁾	807	78	62	55	48	46	518
Related party loan ⁽³⁾	28	28	-	-	-	-	-
	\$ 2,557	\$ 603	\$ 87	\$ 330	\$ 73	\$ 71	\$ 1,393

- (1) Payments represent principal of \$1,500. The Company intends to refinance principal maturities at/or in advance of their maturity dates. The Company may choose to repay a portion of these maturities with available cash, and/or may increase the size of a re-financing to generate additional liquidity or for other purposes, and/or may choose to redeem in whole or in part an issue in advance of its scheduled maturity date.
- (2) Further details on interest rates and maturity dates on long-term debt are provided in note 16 to these consolidated financial statements.
- (3) This is the undrawn commitment under the bridge financing agreement with Aireon. The total bridge financing available is \$29 U.S. (\$38 CDN). As at August 31, 2018, Aireon has drawn \$7 U.S. (\$10 CDN).

18. COMMITMENTS (CONTINUED)

(b) Capital commitments

The Company has firm commitments for the acquisition of property, plant and equipment and intangible assets amounting to \$103 as at August 31, 2018 (August 31, 2017 – \$141). The following table presents a maturity analysis of these capital commitments:

	Remaining payments – for years ending August 31						
	Total	2019	2020	2021	2022	2023	Thereafter
Capital commitments	\$ 103	\$ 53	\$ 18	\$ 6	\$ 4	\$ 3	\$ 19

(c) Operating leases

Leases as lessee

The Company's operating lease agreements primarily convey to the Company the right to use land, office space and technical sites and have lease terms ranging from 1 to 60 years. Many of these lease agreements, particularly with government entities, municipalities and airport authorities are at nominal cost to the Company. Many of the leases have options to renew for as long as the Company requires the asset in order to provide air navigation services. Where the Company's leases include escalation clauses, they are generally accounted for on a straight line basis based on a fixed rate or percentage increase.

Future minimum lease payments excluding operating costs for operating leases are as follows:

	Remaining payments – for years ending August 31						
	Total	2019	2020	2021	2022	2023	Thereafter
Operating leases	\$ 84	\$ 7	\$ 6	\$ 5	\$ 4	\$ 4	\$ 58

The Company recorded operating lease expense during the year ended August 31, 2018 of \$9 (year ended August 31, 2017 – \$10) within facilities and maintenance expense on the statement of operations.

(d) Letters of credit

As at August 31, 2018, the outstanding amount of letters of credit of \$507 (note 17 (c)) is comprised of \$495 drawn for pension solvency funding purposes (note 12) and \$12 for other purposes, \$2 of which was issued on behalf of Searidge.

19. CONTINGENCIES

(a) Legal contingencies

The Company is party to legal proceedings in the ordinary course of its business. Management does not expect the outcome of any of these proceedings to have a material adverse effect on the consolidated financial position or results of operations of the Company.

(b) Indemnification commitments

The Company has not provided any material guarantees other than indemnification commitments typically provided in the ordinary course of business as described below. These indemnification commitments require the Company to compensate the counterparties for costs and losses incurred as a result of various events and are similar to the type of indemnifications required by the Company from suppliers of services and products, or by other companies in the aviation industry.

The Company has provided the following significant indemnification commitments:

Provision of service and system sales

- (i) The Company has entered into five agreements for the sale and maintenance of technology that would indemnify the counterparties up to a maximum of \$1,000 for each occurrence and in the aggregate for losses sustained as a result of the negligence of the Company. In addition, the Company has entered into one agreement for the sale and maintenance of technology that would indemnify the counterparty up to a maximum of the Company's ANS liability insurance coverage of \$5,250 U.S. (\$6,846 CDN). The Company's ANS liability insurance provides coverage for these indemnification commitments. These indemnities survive termination of the agreements.
- (ii) The Company entered into a sales agreement for the supply of an air traffic services data management system and provision of related services, which would indemnify the counterparty up to a maximum of \$35 U.S. (\$46 CDN) for the cumulative liability of the Company in relation to any claim in any manner howsoever arising out of or in connection with the agreement. The Company's liability insurance provides coverage for this indemnification commitment. This indemnity survives termination of the agreement.

Other agreements

In the ordinary course of business the Company provides indemnification commitments to counterparties in transactions such as service arrangements, provision of maintenance services, system sales, sales of assets, licensing agreements, leasing and site usage transactions, contribution agreements, and director and officer indemnification commitments. These indemnification commitments require the Company to compensate the counterparties for costs and losses as a result of various events such as results of litigation claims, environmental contamination or statutory sanctions that may be suffered by a counterparty or third party as a consequence of the transaction or in limited cases, for liabilities arising from acts performed by or the negligence of the indemnified parties. The terms of these indemnification commitments vary based on the contract. Certain indemnification agreements extend for an unlimited period and generally do not provide for any limit on the maximum potential amount. The nature of these indemnification commitments does not permit a reasonable estimate of the aggregate potential amount that could be required to be paid. The Company has acquired liability insurance that provides coverage for most of the indemnification commitments described in this paragraph.

Historically, the Company has not made any significant payments under any indemnification commitments and no material amount has been accrued in the consolidated financial statements with respect to these indemnification commitments.

20. TRANSACTIONS WITH THE GOVERNMENT OF CANADA

The Company has arrangements with a number of federal government departments and agencies for the provision of various services, such as enhanced security services, weather forecasting and observation, and facilities. These arrangements are based on commercially negotiated terms and conditions.

The Company also has an agreement with the Department of National Defence (DND) relating to the exchange of a variety of services with DND such as airspace controls, facilities, information and protocols and systems, for mutual benefit without significant cost or expense to either party.

The Government of Canada maintained an indemnification program at no cost to the Company, which protected the Company from a terrorist-related loss in excess of the Company's insurance coverage. This program was put in place shortly after September 11, 2001 and ended on June 30, 2016. The Company has purchased war liability coverage that runs until November 15, 2018, at which time the Company intends to renew it. The Company is contractually obligated to indemnify the Government of Canada for any loss suffered by or claimed against it which is covered by the Company's aviation operations liability insurance.

21. RELATED PARTY TRANSACTIONS

The Company's related parties include its key management personnel, subsidiaries, joint ventures and registered pension plans for its employees.

Balances and transactions between NAV CANADA and its subsidiaries have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Company and other related parties are disclosed below.

Compensation of key management personnel

Key management personnel of the Company include members of the Board and Executive Management. Executive Management includes executives reporting directly to the Chief Executive Officer and Executive Vice Presidents. Key management personnel compensation included in the Company's net income (loss) for the years ended August 31 was comprised of the following:

	2018	2017
Salaries and other benefits	\$ 7	\$ 6
Defined benefits, including pension benefits	2	2
Management incentive plan	2	2
Other long-term benefits	3	4
Total compensation	\$ 14	\$ 14

There were no loans provided to key management personnel during fiscal 2018.

Transactions with registered pension plans

The Company's transactions with its two registered pension plans include contributions paid to the plans and letters of credit for pension solvency funding purposes, which are disclosed in note 12, and a reimbursement from the Plan for certain costs in the amount of \$12 for fiscal 2018 (fiscal 2017 – \$12).

Transactions with joint ventures and associates

As discussed in note 11, the Company has a participation in Aireon. This participation has been classified as an investment in associate since the Company is able to exert significant influence over Aireon's strategic financial and operating activities. The Company's transactions with Aireon for fiscal 2018 were comprised of dividend income of \$12 (fiscal 2017 – \$11) and cost recoveries of \$3 (fiscal 2017 – \$3).

As at August 31, 2018, the Company has a long-term loan receivable of \$10 (fiscal 2017 – accounts receivable of \$1) and an accrued dividend receivable of \$46 (fiscal 2017 – \$32) from Aireon.

In addition, the Company has a 12-year commitment with Aireon to purchase data services commencing in fiscal 2019; estimated total commitment is currently \$647 (\$497 U.S.). The estimated cost of this commitment in fiscal 2019 is \$7 (\$5 U.S.).

As discussed in note 13, the Company has a 50% interest in Searidge. This interest has been classified as a joint venture. As at August 31, 2018, the Company has a long-term loan receivable of \$2 outstanding from Searidge (fiscal 2017 – \$2).

22. CAPITAL MANAGEMENT

The Company is a non-share capital corporation and, as discussed in note 1, must not set customer service charges higher than what is required to meet its current and future financial requirements for the provision of civil air navigation services. The Company views capital as the sum of its issued long-term debt, retained earnings and accumulated other comprehensive income, regulatory deferral accounts and balances under certain employee benefit plans. This definition of capital is used by management and may not be comparable to measures presented by other companies. The Company's capital is as follows:

	August 31 2018	August 31 2017
Bonds and notes payable (note 16)	\$ 1,494	\$ 1,595
Equity:		
Retained earnings	28	28
Regulatory deferral accounts:		
Debit balances (note 8)	(954)	(1,475)
Credit balances (note 8)	394	342
Employee benefits (note 12):		
LTD (asset) liability	(2)	(11)
Liability for funded pension benefits	707	1,198
Liability for accumulating sick leave	18	22
Total capital	\$ 1,685	\$ 1,699

In addition to tracking its capital as defined above for purposes of managing capital adequacy, the Company also takes into consideration known contingent exposures and obligations such as rate setting decisions made by the Board.

22. CAPITAL MANAGEMENT (CONTINUED)

The Company's main objectives when managing capital are:

- (i) to safeguard the Company's ability to continue as a going concern;
- (ii) to provide funds for the ongoing acquisition of systems and equipment necessary to implement and maintain a modern, cost-efficient ANS technology platform;
- (iii) to ensure the funding of reserve funds as well as working capital and liquidity requirements;
- (iv) to ensure the funding of regulatory requirements such as funding defined benefit pension plan contributions;
- (v) to maintain the Company's credit ratings to facilitate access to capital markets at competitive interest rates; and
- (vi) to minimize interest costs incurred by the Company subject to appropriate risk mitigation actions.

Given that the Company has no share capital, these objectives are achieved through a process that determines an appropriate period and level of cost recoveries through customer service charge rate setting, as well as the appropriate amount of debt and committed credit facilities. This process includes the Company's operational and capital budgeting process and considers the overall economic and capital market environments. The level of debt and committed credit facilities are approved by the Board. The Company is not subject to any externally imposed capital requirements.

There were no changes in the Company's approach to capital management during the year ended August 31, 2018.

LEARN MORE ABOUT US



NAV CANADA employees are the innovators and achievers who manage and operate Canada's civil air navigation system. They are the reason for our success. Our 2018 CSR Highlights report celebrates their achievements at work, in our communities, and toward a safer and more sustainable future.

General inquiries can be made to:

NAV CANADA Communications
77 Metcalfe Street, Ottawa, Ontario, Canada K1P 5L6
1-800-876-4693

navcanada.ca

Serving a world in motion
navcanada.ca

