Rain, drizzle &

In 2016, our NEW RUNWAY SYSTEM will allow 700 more flights to operate on schedule, regardless of fog.
AIRFIELD ACCESSIBILITY AND SAFETY INITIATIVE
FAQs

Q1: What is the Airfield Accessibility and Safety Initiative?
A1: The Airfield Accessibility and Safety Initiative is a three-year infrastructure project that involves preparing the airfield for the installation and operation of a Category III Instrument Landing Systems (CAT III ILS) by NAV Canada. Once operational, this technology will allow aircraft to land and take-off in conditions of very low visibility; a weather challenge that has had an impact on our Airport’s operations and our region’s reputation for decades.

The installation of this technology will increase the usability of the airport to 99 per cent, putting it on par with all major airports in Canada. As a result, 700 more flights and 70,000 more passengers will be able to arrive and depart annually without delays or cancellations.

When the project is complete in 2016, St. John’s International will be the only Canadian airport that serves less than 10 million passengers annually to employ this technology. This project will be transformational for our airport, and our reputation for being an inaccessible location will be reversed.

Q2: Why is the airport investing in this project?
A2: The Airfield Accessibility and Safety Initiative represents a significant investment in the Airport’s airfield infrastructure that will yield long-term, substantial benefits to passengers, airlines and the business community. It will transform the transportation system by significantly improving the usability of our Airport during low-visibility conditions. This will eliminate our reputation for being an inaccessible destination, thus enhancing the attractiveness of our destination to businesses, conference organizers and tourists. It will strengthen both our provincial and national transportation systems and represents an economic and social advancement for all of Newfoundland and Labrador.

This project also incorporates the construction of runway end safety areas (RESAs), located at the end of each runway. These areas are designed to reduce the risk of damage to aircraft in the event of an undershoot, overshoot or excursion from the runway, thereby improving the level of safety of flight operations.

Q3: How is this project being funded?
A3: The $37.3 million project is cost shared between the Airport Authority, the Government of Newfoundland and Labrador and the Government of Canada, through Canada’s Gateways and Border Crossings Fund in support of the Atlantic Gateway and Trade Corridor Strategy.

Q4: How far along is the project?
A4: 2015 represents the third year of this three-year construction project. Over the last two years, 120,000 cubic metres of terrain was removed along the sides and around the primary runway. Work has started and continues into 2015 on the 80 existing approach lighting towers that are being replaced with 94 new towers that are up to six metres higher than the existing.
RESAs were implemented on the secondary runway (R16/34), as well as an extension of 300 feet to accommodate aircraft during the closure of our primary runway (R11/29) for approximately six months in 2015.

2015 marks the final year of this project and, once complete, it will transform the transportation system by significantly improving accessibility to our Airport to 99 per cent during low-visibility conditions, putting it on par with all major airports in Canada. We will also be the first airport in the country with LED light technology employed on the approach lighting system.

**Q5: What is there left to do in the final year of the Accessibility and Safety Initiative?**

A5: During the final year of the project, the work that commenced on the installation of the newer and taller approach towers on R11/29, with LED lighting, will be finalized. In addition, new centerline lighting, touchdown inset lighting and edge lighting will be installed on the primary runway, as well as the construction of blast pads and turn pads. To complete this work, R 11/29 will be closed from June to November 2015.

While the runway will be closed to complete the infrastructure work necessary to support the Cat III ILS, the entire runway will be rehabilitated (repaved) to avoid closing it again in a couple of years, as originally scheduled according to the runway maintenance plan. During 2015, approximately 220,000 square metres of asphalt will be poured on the 8,500 foot primary runway, including the aircraft turn pads and RESAs, and on the expanded apron in front of the Terminal building.

The areas to be improved are displayed in image 1. When these are improvements are complete, NAV Canada will install Category III Instrument Landing System technology of both ends of the runway.

**Q6: When will the new system be operational?**

A6: The construction and improvements will be completed by the end of 2015, at which time NAV Canada will install the CAT III ILS technology. The system will be operational in time for the spring, foggy season in 2016.
Q7: Why is the primary runway being closed?

A7: It is necessary to close R11/29 in order to install and upgrade the facilities to support the CAT III ILS technology. This runway was also originally scheduled for a major overhaul in 2017. It was therefore decided to rehabilitate (repave) the entire runway in advance (in 2015) to avoid closing the runway twice within a few years for an extended period of time. The extent of the improvements does not allow it to be closed for a short period of time or intermittently.

Q8: Can’t this time frame be reduced?

A8: The time frame cannot be reduced because the work is extensive and requires six months during the construction season. Work is occurring six to seven days a week, at least 12 hours a day, throughout the peak construction season. Once the work on the runway is complete, it will be at least 15 years before any significant work is required on this runway.

Q9: What are the operational impacts of the closure of the primary runway (R11/29)?

A9: With a project of this magnitude that will result in the closure of R11/29 for six months in 2015, it is anticipated that there will be times when flights will be unable to operate due to weather conditions that favour the primary runway, despite all possible efforts to mitigate the impact on operations.

From June to November 2015, the primary runway will be closed to complete the improvements associated with the CAT III ILS installation and to be repaved. This runway is known as our “bad weather” runway because it is the one most prevalently used during stormy weather due to the prevailing winds. It also presently has the highest level of instrument landing technology of all our runways (CAT II ILS).

During the six months that the runway is unavailable, aircraft will have two runway options: the secondary runway (R16/34) which is approximately 7,000 feet and our tertiary runway (R02/20) which is 5,025 feet. R16/34 is sufficient in length to handle all commercial aircraft that operate at our airport. In fact, the runway was lengthened in 2014 by 300 feet to accommodate the requirements of all commercial aircraft using our airport. During July 2015, R16/34 will be reduced to 5,900 feet (displayed in image 2), to accommodate the construction work where R11/29 and R16/34 intersect. During the evening hours (21:00 - 9:00), no construction will be occurring and R16/34 will have 6,200 – 7,005 feet of operating length, as displayed in image 3.

Since aircraft take-off and land into the wind, there may be times when a strong crosswind or reduced visibility on Runway 16/34 will not be conducive to safe flight operations. In addition, there will be a two-three week period in July 2015 when the secondary runway will be reduced in length to accommodate the repaving where the two runways intersect. While the length of the runway is still sufficient for commercial flight operations, severe weather conditions may require longer runway lengths to ensure safe operations. In addition, the secondary runway has a lower level of landing aids (CAT 1 ILS technology) than is available on the primary runway. In addition, this technology will not be available on aircraft approaches to Runway 16 when the intersection of the primary and secondary runways is under construction. Therefore, aircraft will require a higher level of visibility to operate than would normally be the case.
A third option displayed in image 4 showcases a third runway R02/20, which may be used when wind conditions require it. Although shortened in length for a period of time to 3,900 feet, it can be accessible from the R02 direction (weather permitting). This runway will only be shortened when the full length of the secondary runway is available.

Q10: What has the Airport Authority done to mitigate the impacts of this construction project on flight operations?

A10: Extensive planning has taken place to complete the project as soon as possible and to limit, where possible, the impact of the runway closure on flight operations. We understand the importance of our airport in enabling people to travel for many reasons, and the impact it has on a business and personal level. This project will improve the travel experience by increasing the reliability of flight operations at our airport. In order to realise these benefits, however, we understand that travellers may be inconvenienced as a result of the construction. Here’s what we’ve done to limit the impacts to flight operations:

- A very detailed schedule and plan of construction operations has been designed in conjunction with our stakeholders and consultants who specialize in airport/airfield developments around the world.
- In 2014, construction took place on the intersection of the two main runways between 3:00 and 5:00 over a two week period in July. This allowed flights to operate as scheduled. Unfortunately, this is not an option in 2015 because the work is too extensive and would not be completed within the required timeframe.
- Construction in 2015 is scheduled around the busiest times of the day for flight operations and critical flights, such as the international flights.
- Extensive consultation has taken place with airlines to understand operating requirements and to plan operations.
- Extensive weather analysis was completed to determine the best time of year to complete the work and limit flight disruptions, based on historical weather data.
- Secondary runway (R16/34) was expanded by 300 feet to accommodate commercial aircraft operations when work is being conducted on the intersection of the primary and secondary runways.
Temporary visual aids (PAPI) will be installed to increase the level of safety on Runway 16/34.

- Stakeholders in the business and tourism sectors have been briefed and kept up-to-date on the project’s progress and possible impacts to flight operations.
- The Airport Authority is committed to updating the travelling public throughout the construction period.

**Q11: Why can’t you do construction on the runway at night?**

A11: Approximately 130 people are working on the runway construction. In addition, security escorts are required and all resources are being utilized. Construction work is taking place at least 12 hours a day, six-seven days a week. There are many safety and security risks associated with construction work at night as this work is occurring close to an active runway.

A greater percentage of flights, approximately 60 per cent, operate at St. John’s International Airport during the hours of 21:00 and 9:00. Given our geographic location, airlines generally like to start and finish their day in St. John’s in order to maximize aircraft utilization. Having these hours free from construction will help mitigate flight impacts.

**Q12: Is the secondary runway long enough for all types of aircraft to operate?**

A12: Yes. The length of the runway can accommodate all commercial aircraft that presently operate at our airport, even when it is required to be shortened to complete construction on the intersection between the primary and secondary runways.

**Q13: Why is the installation of the CAT III ILS taking so long?**

A13: The improvements required on the airfield to support a CAT III ILS are extensive. This is a three year project that involved the removal of 120,000 cubic metres of terrain along and around the runway, the installation of new and taller approach lighting systems on the ends of the primary runway, the installation of new centreline, touchdown inset and edge lighting, the construction of blast pads and turn pads, and the construction of RESAs on both ends of the primary and secondary runways. In addition, the primary runway is being repaved (8,500 feet). Once complete, the runway will not require significant work for at least 15 years.
Q14: Will the new runway system eliminate all weather issues related to flight operations?

A14: This new system will be transformational for our airport as it will allow aircraft to take-off and land under very low visibility conditions. It will result in an increase in the usability of our airport to 99 per cent, putting us on par with the top eight airports in Canada. This technology eliminates one of the most prevalent causes for flight disruptions at our airport, but it does not eliminate the impact from all weather–related issues. Strong cross-winds and snow/ice conditions may continue to cause flight disruptions.

Q15: Why is there construction work occurring during the peak travel period? I.e. summer?

A15: Extensive weather analysis based on historical weather data was completed to determine the best time of year for construction that would limit flight disruptions. It was concluded that this time period is June to November.

Q16: What impact will this have on the tourism industry?

A16: We recognize that the construction period coincides with the peak tourism season, and that our airport is the premier gateway for the province of Newfoundland and Labrador. Seventy per cent of all non-resident visitors who travel by air to our province go through our airport. We have therefore kept our tourism stakeholders informed as to the timeframe and the plans associated with this project. Our tourism stakeholders understand the long-term benefits of these improvements in attracting more tourists and more convention business to our region. It is difficult to predict the overall impact, as it is weather dependent. It is important to note, however, that this project coincides with the expansion of the Convention Centre. During 2015, the St. John’s Convention Centre will be closed while it is under construction, meaning the impact on the convention business this year will be limited.

Q17: How does the Airfield Accessibility and Safety Initiative affect me as a traveller?

A17: As the province’s premier gateway, the expansion and improvements of the Airport that are presently underway will provide a more reliable transportation system that will support the continued growth of our province. When complete, passengers will have a much greater assurance that flights will operate as scheduled, despite foggy conditions. Throughout the construction period, some passengers may be inconvenienced. These short-term disruptions, however, will bring long term benefits that will be transformational for passengers and our entire community.

An example of a Category 3 ILS Landing https://www.youtube.com/watch?v=EgeT-F9-1Kl

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