



Transport Canada Update to the ASCENT Advisory Board

Antoine Lacroix

Research Development Officer – Innovation Center

Transport Canada

October 22, 2019



Purpose

Update on Government of Canada's priorities and Transport Canada's activities related to aviation research.





Pan-Canadian Framework on Clean Growth and Climate Change

- Announced in December 2016:
 - 4 pillars: pricing carbon pollution, reduction of emissions across the economy, adaptation and climate resilience, clean technology, innovation and jobs
- Reduction of GHG emissions by 30% below 2005 emission levels by 2030
- Central piece is carbon pricing
 - Federal carbon tax on fuels came into effect on April 1, 2019
 - 2019: \$20 per ton CO₂
 - 2022: \$50 per ton CO₂



Transport Canada Activities

- Release of the 2016 Canada's Action Plan to Reduce GHG Emissions from Aviation in December 2017:
 - Aspirational goal to improve fuel efficiency by 2% annual average until 2020 from 2005 baseline
- In collaboration with other departments:
 - Innovation, Science and Economic Development Canada (ISED)
 - Clean Growth Hub
 - Natural Resources Canada (NRCan)
 - The Sky's the Limit Challenge
- Development of new contribution agreement with the FAA to support research by ASCENT – 5 years – 2018-2023



The Sky's the Limit Challenge

- Consists of two competitions to develop new, lower-cost ways to produce biojet fuel in Canada and support the creation of a Canadian supply chain
 1. Green Aviation Fuels Innovation Competition
 - \$2 million awarded to four applicants to put their plan into action and compete for the grand prize
 - Call for proposals deadline: February 1, 2019
 - Four finalists announced on May 31, 2019:
 - Carbon Engineering
 - Enerkem
 - Forge Hydrocarbons
 - SAF+ Consortium
 - Next step: submission of 10 liters (2.6 USG) of biojet fuel by November 2020
 - \$5 million grand prize awarded to the team that will develop the best made-in-Canada biojet fuel



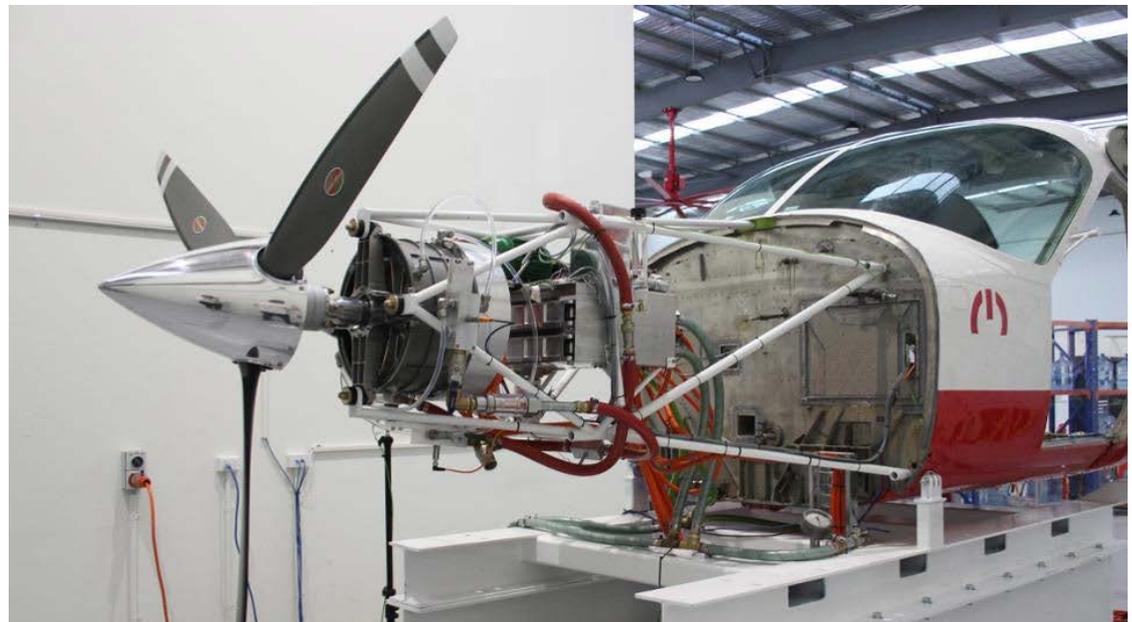
The Sky's the Limit Challenge

2. Cross-Canada Flight Competition

- \$1 million awarded to first producer to provide the fuel required to complete the first cross-Canada (3,000 km \approx 1,620 nm) flight using a minimum 10% blend of made-in-Canada biojet fuel
 - Competition begins: March 1, 2019
 - Competition closes: January 1, 2021
- A biojet producer validly incorporated or registered in Canada
- Production of 2,500 liters (\approx 660 USG)
- The first producer to meet all the criteria for their “Made in Canada” biojet fuel will win one million dollars.

Other National Activities

- Harbour Air all electric seaplane:
 - DHC-2 Beaver
 - 750 hp magniX motor
 - 30 minutes flight time + 30 minutes reserve
 - First flight tests in November 2019



Source: Forbes.com

Questions ?

