



May 1, 2020

Kirby Dier
Ministry of Energy, Northern Development and Mines
Network and Microgrid Policy
77 Grenville St, 6th Floor
Toronto, ON
M7A 2C1

Subject: Northwest GTA Transmission Corridor Identification Study and the Brampton-Caledon Airport

References: 1. 1 May 2020 Detailed Submission to ERO.pdf
2. Transport Canada, TP312, 5th Edition, "Aerodrome Standards and Recommended Practices", September 15, 2015

Dear Kirby,

Per the request on the Environmental Registry of Ontario (ERO) website, please accept the following feedback on the proposed electricity transmission corridor in the northwest GTA. As a stakeholder in the corridor identification study, I am writing you on behalf of the Brampton-Caledon Airport (CNC3) to voice our concerns about the high-voltage transmission lines being proposed in the vicinity of our airport.

As a background, the Brampton Flying Club was established in 1946 and has been in operation at our current location since 1969, just north of the proposed Northwest GTA Transmission Corridor. The Club owns the Brampton-Caledon Airport and the Brampton Flight Centre (BFC). The Brampton-Caledon Airport is Canada's 16th busiest airport and has approximately 120,000 aircraft movements each year. There are two runway surfaces with four departure and arrival flightpaths, accommodating both visual and instrument approaches. The BFC college and self-paced professional flight training programs provide education and training for aspiring career pilots (over 115 Canadian and international students trained annually). After obtaining their Commercial Pilot Licence, many of our Canadian students go on to Porter Airlines, Jazz Airlines and Air Georgian, and then continue their careers with Air Canada, West Jet and Canadian charter airlines. Our international students return home to the Caribbean, South America, Europe, Africa and Asia to start their flying careers. At any given time, we are also training approximately 300 students who want to fly recreationally.

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The routing of the power lines along the proposed Northwest GTA Transmission Corridor with towers that may be over 160 ft tall penetrate the protected airspace for certified airports as defined in Chapter 4 of Ref. 2 and pose a severe risk to the safety of aircraft operations at the airport. The overall view on Page 5 in Ref. 1 and zoomed in view on Page 6 in Ref. 1 show the Brampton-Caledon Airport protected airspace within a 4,000 m radius from the airport reference point. As can be seen in the contour map on Page 7 in Ref. 1, there are many areas along the proposed Northwest GTA Transmission Corridor from the south to the east of the airport north of Old School Road and west of Kennedy Road where a 160 ft tower will penetrate the outer surface and depending on which option is chosen, the power lines will be close enough to the runway 33 threshold that the 1:25 approach slope surface will be penetrated. The height in feet between the ground and the floor of the protected airspace for Runways 33 and 26 are shown on Pages 9 and 11 in Ref. 1 respectively, along with the normal 3° glide path for an aircraft approaching these runways.

Even if the towers do not penetrate the protected airspace, we have additional concerns about how close the airplanes will be to the towers and power lines on take-off and landing; creating a liability issue. For example, in the centre of the RS4-1 corridor shown on Page 9 in Ref. 1 for the approach to Runway 33, the power lines would be approximately 3000 ft from the runway threshold. With a ground elevation of ~875 ft above sea level in that area and a 160 ft tower, the top of the tower will be at 1035 ft. An airplane on a normal 3° glide path to runway 33 will be approximately 1115 ft above sea level as it crosses these power lines. This is only 80 ft above the power lines, which leaves little room for error, and is especially problematic for student pilots who comprise the majority of our flight operations and haven't yet developed the skills to consistently fly normal approaches. Margins for error are further reduced at night and on days with low visibility when it is more difficult to see the power lines. In addition, no matter what the height of the towers are, taking off towards power lines in close proximity to an airport is like taking off towards a wall and in the event of an emergency such as an engine failure shortly after take-off, the viable options available to pilots are drastically reduced when they are trying to get their airplane safely back on the ground.

Aircraft and high-voltage electricity transmission lines are a volatile mix and the safety of airport operations need to be taken into account when selecting the location of the power lines (see more details on Pages 17 – 19 in Ref. 1).

The current proposal will at a minimum shut down our instrument approaches and at a maximum, depending on the height and location of the power lines, significantly limit operations or force the complete shutdown and relocation of the Brampton-Caledon Airport, this at a time when there is a shortage of professional pilots in Canada and in most areas around the world.

Our federally-regulated flight training programs make us a vital member of the Northwest GTA with important implications locally, provincially and federally. We are a key contributor to the economic growth of the Brampton-Caledon region, providing 135 to 140 FTE jobs at the airport.

In conclusion, the only options that we consider acceptable are 1) locating the power lines much further from the airport so that they don't interfere with aircraft arrivals and departures at the Brampton-Caledon Airport and if that is not possible 2) burying the power lines underground in the vicinity of the Brampton-Caledon Airport which is the only way to maintain safety for our airport operations.

Sincerely,

A handwritten signature in black ink that reads "Allan Paige". The signature is written in a cursive style with a large initial 'A'.

Allan Paige
General Manager, Brampton Flying Club

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