

Some Comments on the Effects of the Use of Jets at Billy Bishop Toronto International Airport on the Boating Community in the Rees Street Slip

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I am a lawyer, businessman, waterfront resident, and have been for many years a kayaker on Toronto Harbour, using the facilities of the Harbourfront Canoe and Kayak Centre located in the Rees Street Slip.

At last week's workshop of the City of Toronto's Public Consultation on the Use of Jets at Billy Bishop Toronto City Airport, city staff and consultants reviewing the effect of the airport proposal seemed unaware of the whereabouts of the Rees Street Slip, or of the existence of the boating community there.

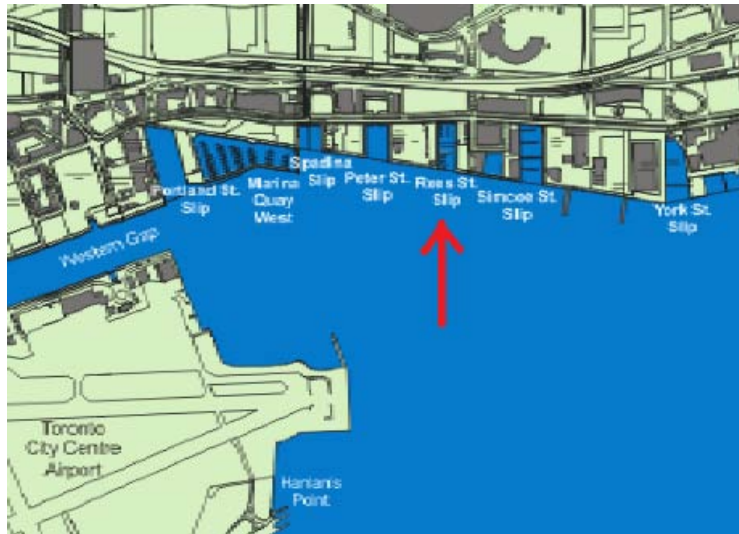
You suggested it might be helpful for me to send you and the City of Toronto a description of the facilities in the Rees Street Slip, and how changes to the airport will affect the boaters there.

Although a lawyer, I have written this document as a personal project. I am unpaid, and am not retained by the organizations mentioned in this document. I do not speak for them or their boards.

Let me stress therefore that what follows represents my own views, based entirely on my own personal observations, and on conversations with individual boaters who use the facilities at the Rees Street Slip.

The Rees Street Slip

The Rees Street Slip is located on Queen's Quay, separated by about 500 metres of water from the Marine Exclusion Zone (MEZ) and the east end of the runway at Bill Bishop Toronto Island Airport. It is a short walk from Union Station, and easily reachable by TTC light rail along Queen's Quay (replaced by buses pending the current construction on Queen's Quay).



The slip contains many docks, small boats of various kinds, canoe and kayak storage racks, and small offices used by: the Toronto Harbourfront Canoe and Kayak Centre, Queen's Quay Disabled Sailing Program, and Harbourfront Centre Sailing & Powerboating. I will describe these organizations further below.

The Rees Street Slip boaters are close to the runway

Boaters from the Rees Street Slip may be more dramatically and closely affected by the proposed runway expansion than anyone else. Airplanes taking off or landing at Billy Bishop Toronto Island Airport pass only a few feet above the heads of kayakers and sailors as they go around the white buoys in the harbour marking the airport exclusion zone. Paddlers often pass so close to the buoys that they can touch them.

When planes at the airport rev their engines prior to take-off, conversation often becomes impossible at the Rees Street Slip or on the nearby waters due to engine noise. There is sometimes a smell of aviation fuel, depending on the wind direction.

Why do the boating activities in the Rees Street Slip matter?

The Rees Street Slip boaters represent a growing group of Torontonians who have rediscovered the waters of Toronto Harbour for relaxation, recreation, exercise, and general well-being. They show how the future of the harbour should look.

On a fine summer evening the number of kayakers, people in war canoes, and sailboats on the harbour far exceeds the number of people in Porter flights overhead, even without counting the thousands of people on tour boats, party boats, yachts, Toronto Island ferries, or enjoying a dinner, concert or stroll along Harbourfront. Porter customers (such as me) are a small, but noisy, minority of the Torontonians and visitors using the harbour.

The extension of the runway, and the use of jets over the harbour, I believe, will effectively lead to the decline and disappearance of this boating community on Toronto's waterfront. I explain why at the end of this document.

This would be a loss, not only for the affected boaters, but also for our city as a whole. Boating on the harbour waters is central to Toronto's history and traditions. In the middle of the twentieth century, everyone agrees, Toronto cut itself off from the lake through overzealous building of large-scale transportation infrastructure, such as shipping facilities, railway yards, and parking lots. The runway extension proposal is a throwback to those days.

Toronto has been working for years to bring back access to the water its citizens once enjoyed. One of Waterfront Toronto's primary objectives, set out in its Corporate and Social Sustainability Report, 2012, p. 2.10, is "To create a waterfront that is inviting and accessible for living, working and playing for all age groups, families and economic levels of the public."

The issues surrounding the proposed runway extension can plausibly be reduced to a simple choice: in years to come, and for future generations, should Toronto Harbour be for jets, or for recreational use by the public?

Here is a brief description of each of the organizations in the Rees Street Slip:

The Toronto Harbourfront Canoe and Kayak Centre (HCKC)

HCKC, a privately run business on land leased from Harbourfront, operates what is probably the most popular urban paddling program in North America. Dating from 1980, HCKC has an on-site office, and several docks on both the east and west side of the Rees Street Slip, containing racks stacked with colourful kayaks and canoes. Around 8,000 paddlers use the facilities of HCKC in some way every year. That number has been growing as more people discover or re-discover the harbour and paddling.¹

HCKC has about 75 rental single and tandem boats, in constant use in the summer, and also offers convenient storage by the water for people who own their own boats. About 275 people store canoes or kayaks there (including me). It is not a club. There is no membership fee; HCKC's revenue is generated by storage fees, rentals, instruction, and

¹ Note that these are 8000 individuals. By contrast, the numbers of people using the airport given in the City's press releases, it appears, are really the number of uses, leading to much repeated counting. For the sake of illustration: I used to regularly fly to Ottawa twice a week for meetings, returning same day. Assume I went twice a week, forty weeks a year, which many business users probably do. I accounted for 2 X 2 X 40 or 160 uses a year, personally. It only takes about 6 such people to get to a thousand uses a year. By the same method of counting, if I paddle around the island four times a week (probably a conservative estimate) I soon account for dozens or hundreds of uses of the harbour per year, and so on for all individuals who boat on the harbour regularly. The City should keep this in mind in assessing the numbers given by Porter.

guided tours. My experience has been that HCKC is friendly and welcoming, an excellent place for safe access to the waters of the Harbour, and a draw for tourists visiting our city. It gives visitors a memorable way to view the beauty of Toronto Harbour, our skyline, and the Island.



Although not members of a club in any formal sense, the people who paddle regularly at HCKC form a thriving kayaking community, linked by many friendships and a common love of the harbour waters and Toronto Island. Kayakers from HCKC are on the water all year round; they include diehard winter paddlers.

HCKC operates a paddling school, with about 15 instructors certified by Paddle Canada and/or the Ontario Recreational Canoe and Kayak Association (ORCKA), who teach kayak, canoe and stand-up paddle (SUP) Board courses aimed at improving paddling and water safety skills at all levels, available at low cost to the public most weekends and summer evenings.

HCKC offers harbour tours to corporate, school, and tourist groups, in voyageur war canoes across the harbour to Toronto Island. These tours are becoming more and more popular. Two more war canoes were purchased this year; there are currently 8. Each war canoe can accommodate up to about 16 people, so groups of as many as a hundred people can be accommodated for a canoe tour.



HCKC also operates a flourishing summer camp, teaching paddling and water safety to about 130 kids a week during the summer months, or about 1500 kids a year. These kids are on the water all day immediately under the planes taking off or landing.

One of the most popular activities at HCKC is “Social Paddle” on Wednesday, Thursday and Friday evenings, weather permitting, from May until September. As many as eighty single and tandem kayaks paddle across the harbour in a guided group to the lagoons in Toronto Island. The idea is to make kayaking on the harbour accessible to everyone.

Paddlers heading to the Island pass by the white buoys marking the exclusion zone inside the harbour on the east end of the runway. This is an extremely busy part of the harbour; the ferry to Hanlan’s Point, sailboats and the shuttle boat to the Island Yacht Club, tour boats and party boats must go around the same white buoys.

As well, experienced paddlers from HCKC often paddle out the Western Gap, and around the white buoys marking the Exclusion Zone on the west side of the airport. Paddlers are in other words constantly come into contact with exclusion zone at both ends of the runway.

The larger the exclusion zone, the less convenient, more crowded with boat traffic, and less safe this detour becomes. Airplanes using the runway pass very close over the head of paddlers anywhere near the exclusion zone

Because of the risk kayaks and canoes may dump, HCKC’s staff need a clear unobstructed view of the harbour near Mugg’s Island and Hanlan’s Point where most renters head. The view is not at present obstructed by the Island runway, but would be if the runway were longer.

I will return to the effect of the proposal on HCKC at the end of this document.

HCKC is unique. No other rental or storage for kayaks and canoes, or paddling instruction, is available anywhere in Toronto harbour or on the waterfront. So far as I know, there is no other storage for canoes or kayaks anywhere near the lake in the GTA, except limited storage at a one or two private clubs, which are difficult to join, and their storage facilities are in any event full. None of these clubs offers rentals, tours or paddling instruction to non-members.

Queen's Quay Disabled Sailing Program (QQDSP)

QQDSP is a non-profit organization that occupies several docks on the west side of Rees Street Slip, and has an office next door to the office of HCKC. I have watched their great work for many years with admiration.

Operated by the Disabled Sailing Association of Ontario (DSAO), QQDSP is dedicated to providing people living with a disability to learn about and enjoy safe sailing. A device, known as the hoyster lift, affixed to the docks in the Rees Street Slip enables sailors with disabilities to enter and exit the boats. There are eleven boats, Martin 16, Liberty's and Paralympic class Sonars, each with adaptive equipment to enable persons with disabilities to access recreation, therapeutic and sport. Approximately 250 - 300 sailors use the facility. There is a staff of four, but the organization is operated mainly by volunteers and thrives off grants and generous donors.



QQDSP offers recreational sailing with a certified companion 5 days a week through the summer, as well as private and semi-private canSAIL lessons. There are sailing race nights every Wednesday and Thursday, held very near to the white buoys marking the airport exclusion zone. There are also Around-the-Island sails, two regattas a year, and frequent barbeques by the docks in the Rees Street Slip. A program called Get On Board is aimed at youth with disabilities.

The DSAO website (disabledsailingontario.com) eloquently states:

Supporters are inspired by the fact that the lakes and oceans of Canada serve as great healers and equalizers: people with mobile impairments can leave their wheelchairs (and their disabilities) behind, and enjoy the independence and freedom that one experiences when wind, sun and spray join forces to make a perfect sailing day.

No other such program exists elsewhere in the GTA.

Harbourfront Centre Sailing & Powerboating (HCSB).

The objective of HCSB is to make sailing and boating affordable and accessible to all, not just to members of exclusive yacht clubs. Harbourfront's sailboats and powerboats operate out the Rees Street Slip, and may be seen tied up to many of the docks.

A variety of sailboats are available for the public to the public, ranging from a Laser Pico 12, a 1-2 person capacity dinghy, to a Sonar 23, with a capacity of 2 to 6 people. There are 10 J-24's. These are made available to members at a very reasonable price, far below the cost of ownership of a boat for an individual.

There are also roughly a dozen motor boats of various sizes available for rent. Yacht charters are also offered.

There is a summer day camp teaching sailing and water safety skills to roughly 65 to 100 kids a week in the summer. The kids are on the water by the exclusion zone constantly.

HCSB offers both sailing and powerboating courses. Among other things, HCSB teaches members how to race a sailboat, an Olympic sport. It also offers courses in navigation to prepare sailors for a vocation as deck officers in the burgeoning private yacht Industry.

HCSB's sailing facilities have about 200 members and about 200 students, plus summer campers.

HCSB sailing races take place on Tuesday and Wednesday evenings in the area immediately east of the airport runway and exclusion zone, which is easily reachable by small sailboats from the Rees Street Slip. If the exclusion zone is expanded east as a result of the proposed 200 metre eastward runway extension, this area would no longer be available for racing. There is no other area in the harbour or in Humber Bay that is reachable from the Rees Street Spit in a timeframe feasible for evening races by small sailboats.

Nowhere else on the Toronto Waterfront offers similar low-cost public access to sailboats and powerboats.

Concerns about the use of jets

Boaters at the Rees Street Slip raised the following concerns:

The Exclusion Zone will get bigger. There is widespread scepticism of Porter's assertion that the exclusion zone will not expand. I share this scepticism, and am making inquiries at Transport Canada and elsewhere to better understand this issue. Although my research is admittedly still in progress, my present understanding is that the exclusion zone will get much larger, and extend well into the harbour.

Here is why. The exclusion zone is established by s. 45 of the *Toronto Port Authority (TPA) Practices and Procedures*, pursuant to its powers under the *Canada Marine Act*, s. 56, subsection 1(b). Its location appears to be in practice set by the *Island Airport Zoning Regulations*, SOR/85-515, under the federal *Aeronautics Act*, administered by Transport Canada. Those *Regulations* precisely describe the "approach surface", "outer surface", "strip" and "transitional surface", in short the landing approaches at the runways. No obstruction is permitted by law in these strictly defined areas for obvious safety reasons. The question where the exclusion zone will be if the runway is extended is a matter for the federal regulator to decide, applying international guidelines such as those of the International Civil Aviation Organization (ICAO).

If the runway becomes 200 metres longer at both ends, and larger jet planes are permitted, the restricted areas defined in the *Regulations* will, based on my research, have to be amended i.e. expanded. The runway will get not only longer but wider, so the MEZ will expand in both directions.

The federal regulator will of course wish to remove any possibility of a collisions with sailboat masts, ships etc. I am informed by Transport Canada that no formal application has yet been made to change the approaches at Toronto Island Airport to accommodate jets. Transport Canada refuses to say what position it will take on this issue. We simply have no way of knowing for sure right now.

It is clear that airport runway guidelines around the world, including in Canada, have been changing require bigger safety areas around airport runways. This is response to accidents in which jets either overshot the runway, like Air France Flight 358 at Pearson in 2005 which famously went off the runway next to the 401, or undershot the runway, like Asiana Flight 214 at San Francisco in July 2013, which hit the seawall short of the runway resulting in two deaths and many injuries.

Transport Canada will soon require a Runway End Safety Area (RESA) at the end of all runways over 1200 feet. Transport Safety Board of Canada has recommended even

longer overruns at the end of all runways in Canada. The trend is towards more safety, not less.

It therefore defies common sense that the federal aviation regulator will decide that the exclusion zone remain where it is. Neither Porter nor the City have offered any credible explanation of how it could be that the runway will get longer, and the planes bigger, while international and Canadian Standards tend toward longer safety areas, yet we should feel confident the exclusion zone will stay the same. Neither Porter nor the City can offer any assurances on this point in any event; it is not their decision, but that of the federal regulator.

It is my understanding that jets have a longer, shallower approach, and will pass over the water lower, that do the current propeller planes. It seems to follow that the exclusion zone will be *much* larger at both ends. Porter's experts say that this can perhaps be avoided if the planes obtain an exemption permitting take off or land at a much steeper angle than usual.

This seems to mean an especially powerful jet engine thrust immediately over the kids in summer camp.

The harbour will become inhospitable to small boats: Many boaters objected to jets, a runway extension, or to the exclusion zone becoming larger, for various reasons.

1. Adverse Effect on Day Camp. Jets emitting exhaust and carbon are inappropriate next to a summer day camp. About two hundred kids attend summer day camp in the Rees Street Slip every day in July and August, in either sailing or canoe and kayak camp, 500 metres away from the runway. The kids are on the water right beside the MEZ all day. They should not have jets going by a few metres above their heads. (There are about a thousand kids altogether in various Harbourfront summer camps of various kinds along the waterfront. All are near the flight path, and affected by noise, exhaust etc.).
2. Jet blast safety issues. Jet engines exert huge force capable of sucking up large objects in their path or destroying things behind them. Googling "jet blast" turns up Youtube videos showing cars, trucks and busses being turned end over end and destroyed by jet blast.² The potential dangers of blasting jet engines near kayaks and small sailboats are obvious.

² For example:

(<http://www.youtube.com/watch?v=DFP4xl0V0mk>)

(<http://www.youtube.com/watch?v=CpX1riSTeJc>)

(<http://www.youtube.com/watch?v=wXPT449542g>)

3. Obstructed View. A clear sight line is required for safety reasons at Harbourfront Canoe and Kayaking Centre. That will be blocked by a longer runway. It will be impossible for the staff to monitor kayakers and canoes and other small boats in the Hanlan's Point and Mugg's Island area.
4. No room for sailboat races. Both Disabled Sailing and Harbourfront Sailing & Powerboating will lose the area in which they now run sailing races, or see that area restricted to a degree that races may no longer be feasible. The MEZ will likely be not only longer but also wider, reducing the area south of the MEZ outside the Rees Street Slip, reducing the area for boating there.
5. Noise concerns. Engine noise from the airport tends to bring conversation to a halt now. It is noisier still on the water near the airport. Despite claims that the jets will be "whisper jets", it seems clear they will be louder than the present planes. It is unsafe for kids in day camp and those taking boating courses if guides and instructors cannot make themselves heard on the water above engine noise.
6. Too much boat traffic. The further out the white buoys marking the exclusion zone are, the more boat traffic must turn tightly in a small area to go around them, increasing the risks of bigger boats colliding or running over kayaks and canoes, or of small boats turning over in high wakes.
7. Safety issues in general. The further from shore the white buoys are moved, the higher the waves and the greater the wind, making the detour more dangerous at both ends of the runway for small boats in unsettled weather conditions.
8. Safety issues for racing boats. Scullers from Ward's Island and paddlers in racing kayaks (such as me) go all the way around the Toronto Island regularly, for exercise. (There is a long tradition of rowing at Hanlan's Point, note the statue of world champion sculler Ned Hanlan at the Hanlan's Point ferry dock). Going around the Islands means going far from shore west of the Western Gap, due to the need to stay outside the MEZ. The MEZ, particularly on the western side, makes this dangerous now. Racing boats have little freeboard. Waves can easily swamp a narrow racing boat. A bigger MEZ will make these problems worse.
9. General ugliness. In general, the harbour, now beautiful, will become ugly. There will be more concrete, fewer birds, more noise, and bigger planes overhead. The area available for boating will be greatly reduced. It will be a longer, less pleasant paddle to the Island.
10. Construction chaos and pollution. No information seems to be available as to how long it would take to add enough landfill to Toronto Harbour and Humber Bay to expand the runway by two hundred metres in both directions. It is likely to be a massive, multi-year construction project. Pollution seeping into the water from the fill seems likely. The noise and disruption will be considerable.

11. Jets will generally discourage boating. The jets will be larger and more intimidating than the present planes, making boating less appealing in general.
12. Traffic problems. The road system and parking facilities just west of the Rees Street Slip cannot accommodate the additional traffic.
13. Aviation fuel transportation and storage concerns. Large amount of jet fuel will be required to be transported and stored in some way on or near Toronto Islands, leading to increased chances of spills and oil slicks.
14. Effects on Toronto Islands. These are a major tourist attraction, Toronto's greatest natural asset. The proposed extension of the runway and accompanying exclusion zones will cause a loss of interest in the Islands. The enlarged airport, noise, and associated pollution will make the islands a "no go" area instead of a beautiful attraction.

The current rebirth of kayaking, canoeing and sailing on Toronto Harbour depends on boating being a safe and pleasant experience. Like anyone enjoying the harbour, boaters seek sunshine, waves, fresh air, the call of birds, the absence of fumes and oily contaminants on the water, and a serene pleasant environment. The number of people choosing to boat on the harbour will drop if big jets are constantly roaring a few metres overhead. It simply will not be enjoyable or safe to go out on the water of Toronto in a small kayak, canoe or sailboat, or for kids to be at summer camp nearby, for all the reasons set out above.

For all these reasons, it is likely that the flourishing boating community in the Rees Street Slip, and the organizations there, will decline and ultimately die, if the airport proposal goes ahead. An important and successful part of Toronto's revitalization, and of this city's character, will have been lost.

We do not need more capacity for jets planes. There appears to be no dispute that Pearson Airport is operating under capacity. A rail link to Pearson will open in 2015. Federal lands are available near Pickering when and if Toronto needs more airport capacity.

We have only one harbour. It should not be wasted.

I would be happy to discuss further with you or any other city officials, or to answer any questions you may have.

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