

Coming Back to Earth

by Ralph C. Martin

On my first trip to Baddeck, Nova Scotia in the 1980s I arranged for a mechanic in a local garage to change the oil in my car at 9 in the morning, while I had a quick look at the Alexander Graham Bell museum. That quick look became a day long delight and by closing time my long suffering partner and the museum staff were escorting me to the door and assuring me I could come back again. In addition to Bell's telephone discovery, I was fascinated with his determination to build aircraft. In the end, J.A. Douglas McCurdy overcame gravity and flew the Silver Dart across Bras d'Or Lake in February 1909, just a few years after the Wright brothers left the ground.

Today, air travel is so ubiquitous that little thought is given about flying to a late morning meeting in another province and coming back home to Guelph for supper.

However, carbon dioxide emissions of air travel per passenger kilometer, including take-offs and landings, are 10 to 12 times higher than travelling by bus or train, assuming each mode of travel is at about 75% capacity. By some estimates of the Intergovernmental Panel on Climate Change, the impact of jets flying in the upper troposphere is an additional warming effect which is 2.7 times higher than what would be expected by carbon emissions alone.

With longer pre-boarding time for security checks, including full body scans, and restrictions on carry-on luggage, flying is also becoming less convenient.

The opportunities for improving efficiencies are much higher with surface transportation, than with flying. Regardless, the challenge for humans is to go beyond efficiencies per kilometre and reduce the number of kilometres we travel in fossil fuel powered machines.

Marty Janowitz, Vice President, Practice Leader, Sustainable Development, Stantec, explained to me how his international company, cut travel by 75%, within a year. They use up-to-date communication technologies very effectively and only travel when it is deemed essential. Staff are relieved that they can be home more often to spend time with family, and the company saves money.

After deciding 10 years ago to stop flying, I discovered it's possible to conduct a lot of business by phone, email, video conferencing, webinars and Skype, thus eliminating the reason to travel at all. I grant that meeting in person is far superior to electronic communication, so if travel is necessary, the meetings better count. As with all things rare, special in-person meetings become more valued.

Now when traveling to the Maritimes or the prairies, I plan ahead and take the train. One can happily read or tap a keyboard to meet work commitments, with pauses to enjoy the panorama of Canadian landscapes through the window.

It would make sense to have a double train track from Halifax to Quebec with several passenger trains each day, in each direction. The tracks are already doubled in Quebec and Ontario. This combined with regular passenger boat service from Halifax to Rotterdam could link Canadians by rail and boat to the excellent European rail system.

A visiting colleague once assured me that we will soon be travelling by blimps again. I'm waiting to buy a ticket. They might be slower than jets but would almost certainly emit fewer greenhouse gases.

In this vein, Atte Korhola, professor of environmental change and climate change at the University of Helsinki, suggests that "the future of aviation, may mean the abandonment of the Western concept of time: Perhaps we will no longer fly according to the clock and timetables, but when it is favourable, inexpensive and sensible to do so."

In March last year, a solar aircraft, Solar Impulse 2, left Abu Dhabi in the United Arab Emirates, hopped up and down across Asia and by July, flew continuously for five days and nights across the Pacific Ocean, from Japan to Hawaii. During that extended flight, there was thermal damage to the aircraft's batteries. The intention is to resume the flight this coming April, to fly the rest of the way across the Pacific Ocean, then across North America, the Atlantic Ocean and Europe with a return to Abu Dhabi to complete this solar aircraft circumnavigation of the globe.

If Alexander Graham Bell were alive today, then I dare say, he would be leading solar flight experiments and inquisitive about how to approach the web of communication and transportation possibilities, within the limits of climate change. We can communicate instantly with almost anyone in any place on the globe. Do we need to

move our bodies rapidly through the air as often as we do? Maybe it's sufficient for sound waves to fly, and for us to come back to Earth.

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