

What a way to AGU

Cameron Patterson gets down to the nitty-gritty of planning his sustainable conference journey from Ottawa to San Francisco This December, I will be taking the train from Ottawa to San Francisco to attend the 2023 AGU Fall Meeting. I want to show that research travel can be more worthwhile than simply jumping on a train – for networking and sustainability, as well as for the life experience. This amazing journey will take me across a Canadian province, a national border, and 11 US states.

It isn't a straightforward train journey, but I have always loved the logistical challenge that comes with organising this kind of trip. Seeing where I will be passing through and what I will be able to see along the way just fills me with excitement and anticipation; optimising the route is the first step to getting the most out of a trip, and that's what I'm trying to do now.

Ottawa – Toronto

After spending a few days in Ottawa meeting research colleagues and contacts and taking in the sights of this attractive city, the first leg of my trip will take me to Toronto. VIA Rail Canada offer multiple services per day, but with the journey taking around 4–5 hours, I am going to leave in the morning so that I have some time to explore the vibrant and artsy city of Toronto after I arrive. The onward train leaves bright and early the next morning, so I'll have to find a hotel in Toronto.

Toronto – Chicago

My first Amtrak train, the Maple Leaf, leaves Toronto Union Station just after 8am and hugs Lake Ontario around to Niagara Falls. After crossing the border between Canada and the United States, at the Niagara River, we'll need to disembark to pass through immigration. The train continues its journey towards New York City, but I will be getting off a bit earlier in Buffalo. I have the afternoon to explore before heading back to the station for my overnight train to Chicago. My next train, the Lake Shore Limited, leaves Buffalo Depew Station just after midnight. Under the cover of darkness, we will travel along the banks of Lake Erie through Pennsylvania and into Ohio. The sun will be up as we leave Ohio and make our way through Indiana, before following to the southern tip of Lake Michigan around into Illinois. We arrive in Chicago just after 10am.

I will be spending a night here, as the next train journey will be the longest yet and I do not want to risk any delays that would mean that I miss my connection. After finding somewhere quiet to get a bit of work done, I plan to hunt down a slice of the famous Chicago-style pizza.

Chicago – Denver

At 2pm the next day, we leave Chicago Union Station aboard the California Zephyr. One of the most scenic train journeys across the United States, travelling almost 4000 kilometres to San Francisco over the next 51 hours. As we make our way into Iowa, we cross the Mississippi River. We travel through the entirety of Nebraska by night; at sunrise we're in Colorado, reversing into Denver just after 7am. I will be staying in Denver, the Mile High City, and the nearby city of Boulder in the foothills of the Rocky Mountains for a few days' work. This is the part of the journey I am most looking forward to; Colorado is famously a breathtakingly beautiful part of the world.

Denver – San Francisco

We leave Denver Union Station just after 8am, back on board the California Zephyr. This leg of the trip goes all the way to San Francisco. We cross the Rockies, and pass stunning vistas of mountains, canyons and lakes as we dart through Colorado into Utah. We spend the night cruising across Utah, past the Great Salt Lake and into Nevada. The next day we arrive in California and pass by the

historical Donner Pass through the stunning Sierra Nevada mountains and down into Emeryville, the station that serves San Francisco, at 5pm.

And with that, the journey will be done!

Meanwhile, all those travelling by air are fidgeting around in their seats trying to get comfortable, the blanket of white clouds outside their tiny window blocking any glimpse of the wonders below. I, by contrast, will have seen a swathe of continental North America, met colleagues and made new friends, by letting the train take the strain...

AUTHOR

Cameron Patterson is a third-year PhD student at Lancaster University, UK, working on how space weather affects railway signalling systems. You can find out if this epic, but sustainable, rail journey pans out as planned in future issues of A&G.