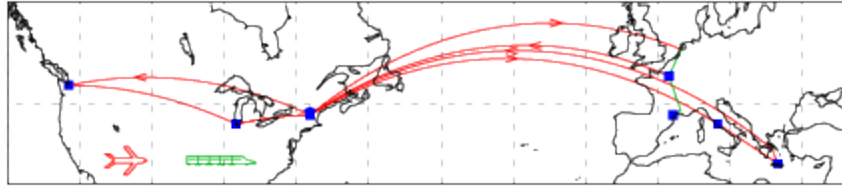


The Whole Way to Go



This Mercator map records our reproachable carbon footprint in a year of two trips to Europe. Train travel among Amsterdam, Paris and Béziers is shown in green, extended stays in blue.

The Mercator projection is celebrated for its utility in navigation. The compass course from one point to another can be read off from the straight line that joins them. That course, though, is rarely the shortest route. Modern navigational equipment makes it easy to follow actual shortest routes—great circles, such as those plotted above.. Thus, while the Mercator projection is still standard for regional nautical charts, it's not helpful for planning long air flights. Incidentally, the launch directions above are exactly the same as one would read from retro-azimuthal maps ([1994 card](#)) centered at the destinations.

The compass-course property of Mercator maps is a result of conformality. Since at every point the scale is the same in all directions, relative angles are preserved around every point. Because north is always vertical, a fixed compass course points in the same direction on the map at every point along the way, and so plots as a straight line.