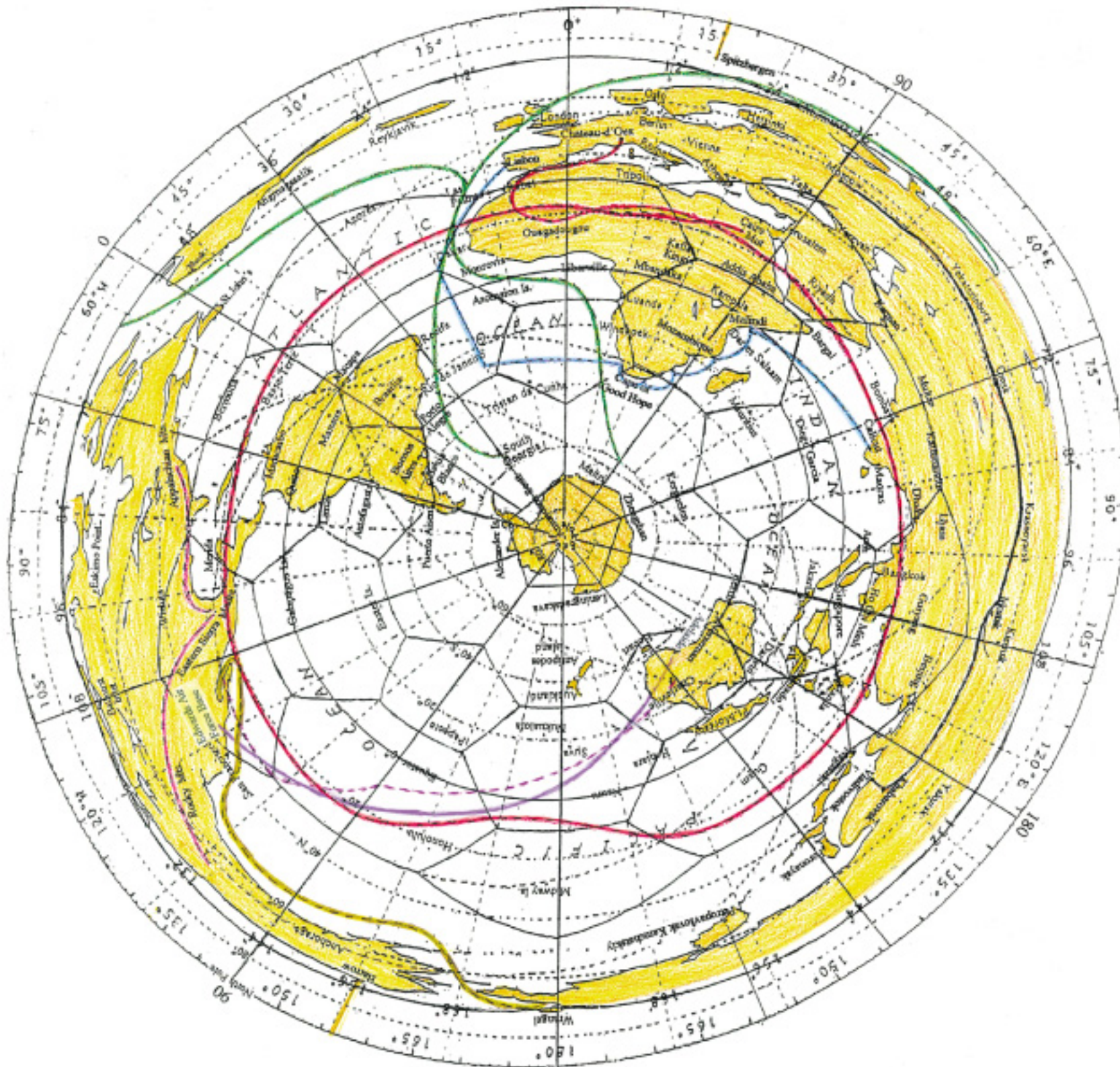


Some fairly well known travel and migration routes that are translocated onto the antipodes map



Reference has to be made to the "Arc-angle distances and areas table" (page 27) and also to "Data of a few latitudes of a spherical earth" (page 35) for the approximations of the distances that are discussed below.

The arctic tern follows the summer sun, migrating from the arctic to the antarctic in August, and from the antarctic to the arctic in February. Its journey one way is about 20,000 kms. (the distance of half a great circle circumference).

Vasco da Gama was the first European to discover the sea route to India by travelling eastwards round the Cape in 1497-1499. His journey from Lisbon to Calicut could be about 23,000 kms. (more than half the equatorial circumference).

Bernard Piccard and Brian Jones were the first balloonists to successfully circumnavigate the earth from March 1 to 21, 1999. (Refer: National Geographic, Sept. 1999). They completed 40,814 kms. from Chateau-d'Oex in Switzerland to Mut in Egypt, a distance that could equal the circumference of latitude 20°N, plus the overlapping distance and the distance from Switzerland.

Umberto Nobile was the first explorer to travel almost diametrically across the north pole in 1926 in a dirigible aircraft. He flew north to the pole from Spitzbergen and continued south to Barrow, a journey of about 3,400 kms. shown on opposite sides of the map.

The Trans Siberian Railway from Vladivostok to Moscow covers a distance of 9,313 kms. From the "hex-pen" grid this distance could be approximate to three times the arc-angle distance of 21.14°, plus all the meandering distances in between.

The migration of the grey whale from the arctic to the gulf of California could cover a distance of about 9,000 kms. one way.

The once-in-a-lifetime migration of the Monarch butterflies from either the Rocky or Appalachian mountains to their breeding areas in the Eastern Sierra Madre could cover about 4,000 kms.

The recent 13,840 kms. flight of the robot plane Golden Hawk across the Pacific from California to Adelaide on April 23, 2001. The arc-angle distances of the "hex-pen" grid (---) add up to 13,707.91 kms. which is fairly close to the actual distance.