

Circumnavigation by Human Power

10 July 2007 – 21 July 2012



The circumnavigation by human power¹ which began on 10 July 2007 from Bodega Bay on the shores of California, concluded successfully on 21 July 2012. Erden Eruç² returned back to his starting point after a westbound journey which took him 5 years 11 days to complete. The goals of his journey have been to educate and to inspire students and to leverage the journey for charitable projects.

Accomplishments along the way

As Erden often shares with children, when we dream big and choose to embark on a larger than life journey, success depends on taking a few big steps which are noteworthy in their own right or many small steps at a rapid pace. Erden's own roster of accomplishments by the time that he completed his human powered circumnavigation bears witness:

- The first person in history to have completed a self-propelled circumnavigation by human power.
- The most experienced ocean rower alive with 876 career days spent on the world's oceans.
- The longest distance rowed in an ocean rowing career, about 28,551 nautical miles.³
- The first person to have rowed the three major oceans.⁴
- The first person to have rowed across the Indian Ocean mainland to mainland, Australia to Africa.
- The first person to have rowed across an ocean from the southern hemisphere to the northern.
- Guinness World Record for the longest time spent at sea by a solo ocean rower by 312 days.
- The longest distance record on the Atlantic Ocean by rowing, about 5,465 nautical miles.
- The longest distance on the Caribbean Sea – about 1,709 nautical miles.

¹ <http://www.around-n-over.org/circumnavigation.htm>

² <http://www.around-n-over.org/erden.htm>

³ http://www.oceanrowing.com/statistics/longest_time_at_sea.htm

⁴ <http://www.guinnessworldrecords.com/records-10000/first-person-to-row-three-oceans/>

Distances covered during the circumnavigation	<i>nautical miles</i>	<i>statute miles</i>	<i>km</i>
Bodega Bay to Papua New Guinea waters: 312 days (rowed between 10 July 2007 - 17 May 2008)	9,072	10,440	16,802
Continuation on Bismarck Sea to land at Finsch Harbor in PNG (rowed between 15 Jan - 4 Feb 2009)	756	870	1,401
Finsch Harbor to Port Moresby in PNG (walked and kayaked between 22 Sept - 26 Nov 2009)	418	482	776
Port Moresby to Sharp point on Cape York peninsula (rowed between 8 Dec 2009 - 10 Jan 2010)	628	723	1,163
Sharp point to Cooktown (kayaked between 28 Jan - 15 Feb 2010)	421	485	780
Cooktown to Thredbo (bicycled between 18 Feb - 9 Apr 2010)	1,948	2,241	3,607
Kosciuszko summit hike (walked on 10 April 2010)	10.8	12.4	19.9
Thredbo to Carnarvon (bicycled between 12 Apr - 7 July 2010)	2,724	3,134	5,044
Carnarvon in Australia to Mahajanga in Madagascar (rowed between 13 July - 26 November 2010)	5,086	5,853	9,421
Mahajanga in Madagascar to Angoche in Mozambique (rowed between 26 March - 20 April 2011)	581	668	1,076
Angoche in Mozambique to Arusha in Tanzania (bicycled between 2 May - 5 June 2011)	1,144	1,316	2,119
Kilimanjaro climb (climbed between 8 June - 15 June 2011)	34.8	40.1	64.6
Arusha in Tanzania to Lüderitz in Namibia (bicycled between 21 June – 21 August 2011)	2,813	3,238	5,211
Lüderitz in Namibia to Guiria in Venezuela (rowed between 10 October 2011 – 11 March 2012)	5,465	6,288	10,121
Guiria in Venezuela to Carupano in Venezuela (bicycled on 19 March 2012)	74.4	85.6	138
Carupano in Venezuela to Gulf of Mexico (rowed between 21 March 2012 – 2 May 2012)	1,709	1,967	3,165
Caribbean Sea to Cameron, Louisiana (rowed between 2 May 2012 – 27 May 2012)	880	1,013	1,630
Cameron, Louisiana to Bodega Bay, California (bicycled between 21 June 2012 – 21 July 2012)	2,076	2,389	3,845
<i>Total distance covered by human power:</i>	<i>35,795</i>	<i>41,193</i>	<i>66,299</i>

CIRCUMNAVIGATION – A multi-syllable word that everyone loves

The dictionary definition of circumnavigation is to go completely around a geographic feature. The earth is a sphere; going completely around a sphere then requires talking about great circles. Erden's circumnavigation route did average a great circle. This unique great circle was calculated mathematically using a least squares fit to the course that Erden made good on the surface of the Earth.

A sine qua non requirement of Erden's human powered circumnavigation was to include a pair of antipodal points on his route. He achieved this requirement for the first time near Cap St Andre of Madagascar. Antipodes are pairs of points on the earth's surface which are located diametrically opposite of each other, like the North Pole and the South Pole. Every point has its antipode.



The antipodal track of the human powered circumnavigation in red

The circumnavigation track (shown in black) mirrors on the opposite side of the globe as an antipodal track (shown in red). Intersection of these tracks indicates the locations at which the antipodal requirement of a true circumnavigation has been achieved. This ensures that the journey has gone as far beyond the horizon as possible to the far ends of the globe and then back. The natural results of this requirement imposed on a journey generally traveling in the same direction, are that the journey will have crossed the Equator at least twice and will have traveled at least the length of the Equator.

Both the actual and antipodal paths can be viewed in detail using Google Earth⁵ at:

<http://www.around-n-blue.org/track.kmz>

Antipodes achieved by Erden Eruc

1st pair	near (S16.10176, E044.40579) by Cap St Andre of Madagascar	and	(N16.10176, W135.59421) ESE of Hawaii
2nd pair	near (S12.37600, E040.14403) in northern Mozambique	and	(N12.37600, W139.85597) SE of Hawaii
3rd pair	near (S11.14864, E031.87672) in northeastern Zambia	and	(N11.14864, W148.12328) SSE of Hawaii
4th pair	near (S04.33445, W016.20405) on the South Atlantic	and	(N04.33445, E163.79594) near Kosrae island

⁵ Google Earth application must be installed on your computer to view this file.

5th pair	near (N03.51445, W035.06006) north of Natal, Brasil	and	(S03.51445, E144.93994) near Bam island on Bismarck Sea
6th pair	near (N19.82118, W083.15139) on the Caribbean Sea	and	(S19.82118, E096.84861) on the Indian Ocean
7th pair	near (N19.83241, W082.97989) on the Caribbean Sea	and	(S19.83241, E097.02012) on the Indian Ocean
8th pair	near (N19.82748, W083.02486) on the Caribbean Sea	and	(S19.82748, E096.97514) on the Indian Ocean
9th pair	near (N19.82806, W083.02055) on the Caribbean Sea	and	(S19.82806, E096.97945) on the Indian Ocean
10th pair	near (N19.82798, W083.02273) on the Caribbean Sea	and	(S19.82798, E096.97727) on the Indian Ocean
11th pair	near (N20.03665, W083.42335) on the Caribbean Sea	and	(S20.03665, E096.57665) on the Indian Ocean
12th pair	near (N20.08717, W083.51607) on the Caribbean Sea	and	(S20.08717, E096.48392) on the Indian Ocean



Detail representation of the first five antipodal points.

The journey unfolds over time

Founded by Erden Eruç in 2003, the mission of the nonprofit Around-n-Over is to educate and to inspire children based on the lessons learned during human powered journeys, and to raise funds for charitable projects focusing on education. During the circumnavigation journey, Around-n-Over was able to leverage over 100,000 USD toward charitable projects.⁶ The teleconferences by satellite phone to engage primary school children in boarding schools in rural Turkey and the priority he has given to in-person school visits have added a noble purpose to Erden's journey.

The initial step in the human powered circumnavigation was to cross the Pacific Ocean land to land (route shown in black). This was achieved in two phases, first by rowing from California to the waters of Papua New Guinea (PNG), then later across the Bismarck Sea to land at Finsch Harbor in PNG. Unable to bring the boat to shore due to unforeseen and persistent La Niña winds in 2007-08, Erden had to stop the row on 17 May 2008, day 312 – resupplying was not possible and the typhoon season had started; thus an orderly retreat was organized with help from Philippine fishermen to pick up the rowboat north of PNG. This first phase lasting 312 days became the new *Guinness World Record* for the longest time at sea by a solo ocean rower. The same fishermen later returned him to the same spot to continue the journey. After reaching shore at Finsch Harbor, Erden continued southeast in the autumn of 2009 along the Solomon Sea shores of PNG, first by beach walking then by sea kayak until Oro Bay. A coast to coast crossing of PNG followed on foot over the difficult Kokoda Track until Port Moresby.

The same rowboat was used again to cross the Coral Sea to Cape York in Australia arriving in January 2010. Erden pressed on by sea kayak during the rainy season along the far northeast shores of Queensland dodging tropical cyclone Olga and the crocodiles. In Cooktown he finally reached paved roads to bicycle with a trailer in tow. He pedaled south to climb Kosciuszko, the highest point on the continent of Australia then continued to the west coast of Australia across the desolate Nullarbor Plain.

Kosciuszko was the second peak⁷ to climb in Erden's Six Summits Project in memory of Göran Kropp⁸ whom he had lost while rock climbing together in September 2002. In this long winded project, Erden had already climbed Mt. McKinley⁹ of North America as a tribute in 2003. This was completed by human power, Göran style, towing his climbing gear behind his bicycle round trip from Seattle.

Erden used Perth as a staging ground for his Indian Ocean crossing. He prepared his rowboat there then bicycled north to Carnarvon in Western Australia. He launched on the Indian Ocean from Carnarvon on 13 July 2010 with the intention to reach Kenyan shores. However piracy issue remained a serious concern and Erden was advised by naval security forces to reconsider. Erden agreed to stay south; Mozambique was a possibility. He passed north of Madagascar, then between the islands of Moheli and Grande Comore, but strong currents due to meso-eddies later held him captive preventing progress toward Mozambique shores. He successfully diverted to the port of Mahajanga (Majunga) of Madagascar, making landfall without assistance on 26 November 2010 for an intermission until after the cyclone season. He had rowed a total of 5,086 nautical miles (9,421 km) over 137 days.

⁶ <http://www.around-n-over.org/done.htm#charitable>

⁷ <http://www.around-n-over.org/stage2/index.htm>

⁸ <http://www.around-n-over.org/lestweforget.htm#goran>

⁹ <http://www.around-n-over.org/stage1/index.htm>

By then Erden was past a symbolic half way point on his human powered circumnavigation. While on the Mascarene Basin east of Madagascar, he had crossed the meridian circle of his starting point at Bodega Bay. The London based Ocean Rowing Society declared Erden to be *the first person to row three oceans*¹⁰ taking into account his earlier rows on the North Atlantic and the Pacific.

Erden relaunched by rowboat from Mahajanga after the cyclone season on 26 March 2011. Strong currents and variable winds resulted in a challenging effort across the Mozambique Channel which lasted for 26 days. On 20 April, he achieved landfall at Angoche in Mozambique. This completed the *first ever mainland to mainland crossing of the Indian Ocean* between two continents by human power.

The Indian Ocean had never been crossed to completion. The closest anyone had come to this achievement was in 1971 when the Swedish rower Anders Svedlund who had left from Australia landed on a beach near Diego Suarez on Madagascar.¹¹ Everyone else since then had gone to Seychelles or to Mauritius. Erden had to reach the African mainland as a requirement of his human powered circumnavigation in order to maintain continuity in his circumnavigation path. Arrival at Mozambique was a historic one making Erden the first one to have rowed the complete Indian Ocean although in two phases. When Erden landed on mainland Africa, he solidified his rank as *the most experienced ocean rower alive* in the world with 655 total career days at sea.

As part of the Six Summits Project, Erden's destination in Africa was Mt. Kilimanjaro¹² in northern Tanzania. He bicycled from his point of landfall in Angoche north to Arusha then completed this climb with his team members in June 2011.

Following the Kilimanjaro climb, Erden proceeded by bicycle first due south, then southwest across Africa. The route took him across southern Tanzania into Zambia toward Livingstone. Then he turned west to enter Namibia and traveled the length of the Caprivi Strip before continuing south in that country. Lüderitz Bay was the final stop on this land phase of the circumnavigation, which became the launch point for the Atlantic crossing by rowboat toward the Americas.

Due to logistical delays, the launch from Lüderitz happened on 10 October 2012. This put Erden in the waters north of Brazil in the month of February with persistent NE-ESE trade winds and a counter current to negotiate. While Erden was able to make progress toward Trinidad, he was not able to gain sufficient northing to clear Trinidad to enter the Caribbean Sea at the Galleons Passage. He proceeded into the Serpent's Mouth south of Trinidad then entered the Gulf of Paria located west of Trinidad, concluding his Atlantic crossing inside the gulf at Guiria of Venezuela on 11 March 2012. With this crossing, Erden became *the first person to complete an ocean crossing by human power which began in the southern hemisphere and concluded in the northern*. In addition, this row was registered as *the longest distance rowed on the Atlantic Ocean* (about 5,415 nm over 153 days) and became *the second ever mainland to mainland row from Africa to South America*.

With generous local help, Erden was able to transfer his rowboat from Guiria to Carupano over land to the north side of Paria Peninsula, then with a loaner bicycle, he pedaled the 138 km distance in between. He relaunched from Carupano on 21 March 2012 to continue rowing on the Caribbean Sea. By the time

¹⁰ http://www.oceanrowing.com/statistics/multiple_crossings.htm

¹¹ http://www.oceanrowing.com/statistics/Indian_ocean_rows.htm

¹² <http://www.around-n-over.org/stage3/index.htm>

he passed through the Yucatan Channel between Mexico and Cuba on 2 May 2012, Erden had logged 1,709 nm – the longest distance and the first adjudicated row on the Caribbean Sea.

The rowing continued another 880 nm in the Gulf of Mexico until landfall at Cameron, Louisiana. When Erden landed at Cameron, his career total at sea had reached 876 days maintaining his status as *the most experienced ocean rower alive*. The ultimate record still belongs to Peter Bird¹³ who was lost at sea on his 937th day while rowing the North Pacific west to east. Peter Bird was a pioneer of the sport whose logo Erden proudly carries on his rowboat as a tribute.¹⁴

The circumnavigation continued over land by bicycle. Between 21 June and 21 July 2012, Erden covered 2,389 miles (3,845 km) travelling across Texas, New Mexico, Arizona, Utah, Nevada and California. The journey was complete when he returned back to his launch point in Bodega Bay in the company of his wife Nancy and friends. He had committed 5 years and 11 days to realizing his dream; he had completed *the first solo circumnavigation of the world by human power* as recognized by Guinness World Records.

Awards

For his achievements and commitment, Eruç was awarded the *2013 Citation of Merit*¹⁵ and the *2010 Vancouver Award*, both from the prestigious Explorers Club. He was included in *The 50 Most Adventurous Men* list by Men's Journal¹⁶, the *2013 Adventurers of the Year* list by Outside Magazine¹⁷ and the *Best of Explorers Web 2012*¹⁸ list. He was already on *Best of Explorers Web* lists in 2008 and in 2010 for his rows on the Pacific and Indian oceans, respectively¹⁹. Eruç received the *2012 Sports Career Accomplishment Award* and earlier the *2006 Fair Play Award* from the Turkish National Olympic Committee for his efforts to use sports for the advancement of society. The Turkish Maritime Journal issued him a *Golden Dolphin Award* in 2012, recognizing him among those who contributed to the advancement of maritime culture in the modern Turkish Republic.

Future plans

The short term priority will be to document the circumnavigation as a book and a documentary film. Primarily due to lack of funding, Erden concluded his circumnavigation by human power as quickly as possible. As such, he bypassed Asia and Europe, avoiding the expenditures required for Everest and Elbrus. He pushed forward despite a brief touchdown in Venezuela, also bypassing Aconcagua on his Six Summits Expedition²⁰ list. The favorable outcome was that his course remained closer to a great circle. He will climb Everest, Elbrus and Aconcagua as a follow up project by human power.

Erden would like to continue his charitable and educational efforts throughout the rest of his expeditionary career. Understandably, this is contingent upon the level of public support that these projects may receive.

¹³ http://www.oceanrowing.com/statistics/longest_time_at_sea.htm

¹⁴ http://www.oceanrowing.com/statistics/lost_at_sea.htm

¹⁵ http://www.explorers.org/index.php/news/news_detail/announcing_the_2013_explorers_club_annual_award_winners

¹⁶ <http://www.mensjournal.com/adventure/the-50-most-adventurous-men>

¹⁷ <http://www.outsideonline.com/photo-galleries/Adventurers-of-the-Year.html>

¹⁸ <http://www.explorersweb.com/trek/news.php?id=21183>

¹⁹ <http://www.explorersweb.com/info.php?area=bestof>

²⁰ <http://www.around-n-over.org/done.htm>



