

Mortimer Rogoff (1921 - 2008)

Mortimer Rogoff, recognised worldwide as the grandfather of the electronic chart, passed away peacefully at the age of 87 on 2 August 2008 at his home in Nantucket (US).

Mort received his B.S.E.E. from Rensselaer Polytechnic Institute and his M.S.E.E. from Columbia University. He was a Fellow of the IEEE and ION and was a member of the Cosmos Club. He was a man of the future, who carried on working until two weeks before he passed away, and who loved to be several decades ahead of the world. During the war, he developed a radio communication system that was totally undetectable by the enemy because its power was below the background noise and the frequency variable in a random way. This was the birth of the spread spectrum, the technology on which modern GPS and cell phones are based. Unfortunately, he was not allowed to achieve public credit or to patent the technology because it was top military secret.

Half a century ago, he developed a computer network system and a text exchange protocol that could be viewed as the harbingers of the Internet and email. A quarter century ago, although GPS did not exist, and computers were rudimentary, he managed to survey Loran coordinates in New York and Tampa to create differential Loran with sub-metre accuracy. He found a computer in Japan with half a megabyte of memory and a 4 MHz clock (1000 times slower than today's home computers) and, through clever software, was able to perform all the functions of today's advanced electronic chart systems including a digital vector database of the highest detail and radar overlay.

Mort was among the earliest to patent, program, build and demonstrate Electronic Chart Systems. His patent combining radar maps with electronic charts has resulted in today's major improvement in marine navigation. Until his retirement a few years ago, he was President of The Navigational Electronic Chart System Association (NECSA). In this post, he kept pushing for recognition of professional commercial electronic navigational charts, not only in the interest of the manufacturers he represented but also (and in particular) for the contribution of these products to the safety of the mariner. One of his greatest achievements in this function was the ISO standard for electronic charts which he tenaciously sneaked through the system, catching everybody off-guard. Although nobody could argue against the need for a standard, no one was ready to endorse one; however, nobody was brave enough to oppose it. The excellent standard was therefore introduced and will certainly become commonplace in a few decades when, as always, the world manages to catch up with Mort's creations.

I will certainly miss the battles that we fought together with Mort in order to convince the sceptics of the benefits of electronic charts and their continuous innovation.

I will also miss meeting Mort every summer in his place in Nantucket: I would go there by boat, dock at his house, and enjoy a full day of discussions on the newest technologies. Although in his late 80s, he was as sharp as a razor until the very end and always up-to-date on the latest technology.

In recent years, he had taken up digital photography with great success. His pictures of sailboats racing in Nantucket Sound are not only beautiful but they also convey a love of the seas and for sailing that can only be transmitted with salty wrinkles. His pictures of lighthouses, beaches and seabirds are art and romance combined, and were selling well on the island. However Sheila, his witty and beloved wife of 65 years (herself a very accomplished artist), jokingly quipped he would never make a profit. After a good lunch we would frequently take to the sea and test the latest in electronic charts, enjoying the discussions about user-friendliness and about the endless debates with the hydrographic community.

Mort took off for the ultimate ascent from his lab/home in Nantucket, after watching the last beautiful sunset on the harbour with his family. Although he forgot to take his computers, radios and photography equipment, he will continue to churn out innovations for many more decades as we discover what he had previously discovered for us.

Our condolences go to Mort's wife, family and wider community.