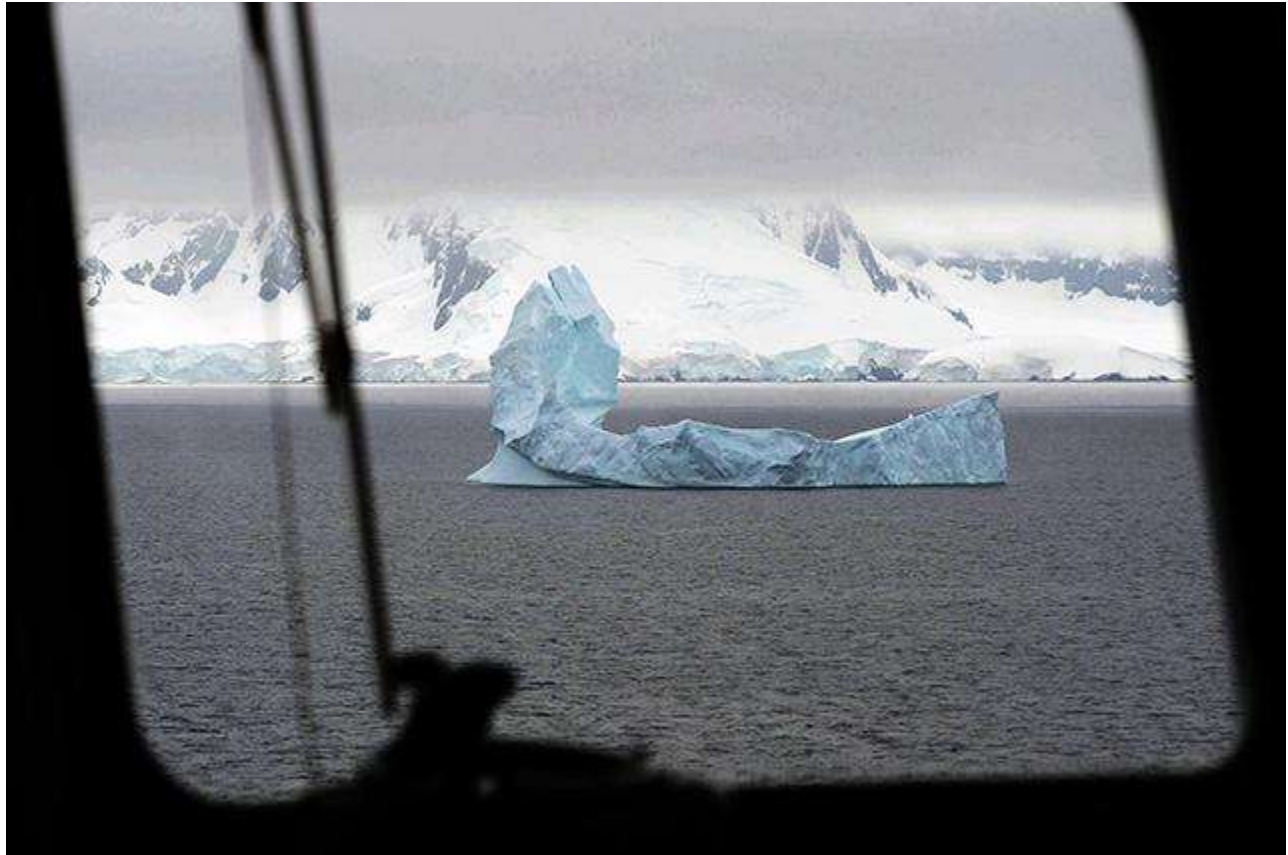


<http://eandt.theiet.org/news/2013/oct/eloran-russia.cfm>

UK and Russia to cooperate on GPS back up

11 October 2013

By Edd Gent



New shipping routes in the high Arctic have prompted cooperation between the UK and Russia on advanced navigation

The UK and Russia will work to harmonise their advanced navigation technologies to improve safety on hazardous new high Arctic routes.

Shipping traffic through the Northern Sea Route alone has quadrupled in the last year, according to the Northern Sea Route Administration, as melting polar ice opens new arctic shipping routes that cut shipping times between Asia and Europe by around a third.

The new routes also avoid issues with territorial disagreements and pirate threats sometimes encountered on routes around Asia and Africa, but the increase in shipping traffic is adding to safety risks in the Arctic region, along with hazards such as perennial ice cover, unpredictable weather, and reduced availability of GPS satellite navigation data that ships rely on.

As a result, the General Lighthouse Authorities of the UK and Ireland (GLAs) has announced today that they are working with the Internavigation Research and Technical Centre in Russia to develop interoperable and resilient position, navigational and timing (PNT) technologies such as the eLoran system the GLAs are rolling out across the UK.

Adrian Munda, nautical manager for Safety and Environment at the UK Chamber of Shipping said: "These new routes are undoubtedly an exciting prospect, and offer great advantage in terms of reduced fuel usage and consequent benefits for the environment.

"There are issues of safety still to be addressed, for example the ability to conduct search and rescue in such remote regions and the quality of hydrographic survey. We look forward to hearing the outcome of this activity and would support any development that is set to improve navigational safety."

The GLA's eLoran technology is a pulse-phase long-wave range radionavigation system and works independently of satellite navigation technology, which is vulnerable to both deliberate and accidental jamming.

Russia has its own version of the technology called eChayka and the new partnership will see both countries work together on furthering the development and standardisation of two systems.

Martin Bransby, Research and Radionavigation manager at the GLAs, said: "Resilient PNT is increasingly accepted as requisite to shipping safety around the world.

"The GLAs are recognised as technical leaders in this field, and it's of paramount importance that we collaborate with other leading nations to encourage worldwide excellence in shipping navigation safety and efficiency."

Dr Victor Tsarev, director general of the Internavigation Research and Technology Centre said: "There are many technical areas of mutual interest for the development of eLoran in the UK and Ireland and eChayka in Russia for which a future exchange of information and technical cooperation will be beneficial for both parties."

<http://www.marinelink.com/news/collaboration-technology359748.aspx>

U.K., Russia Enter Navigational Technology Collaboration

MarineLink.com

Monday, October 14, 2013



The General Lighthouse Authorities of the U.K. and Ireland (GLAs) are cooperating with The Internavigation Research and Technical Center in the Russian Federation to achieve compatibility in advanced navigation technologies. The common goal is to improve shipping safety across hazardous new high Arctic routes, which are playing an increasingly important role in international trade.

The U.K./Russia cooperation refers specifically to the development of interoperable resilient position, navigational and timing (PNT) technologies; furthering the development and standardization of eLoran in the U.K. and Ireland and eChayka in Russia.

Arctic shipping routes have only become viable in the past few years due to melting polar ice, allowing a reduction in shipping times between Asia and Europe of around a third. The new routes also allow vessels to avoid issues with territorial disagreements and pirate threats that are sometimes encountered on routes around Asia and Africa. Shipping traffic through the Northern Sea Route alone has quadrupled in the last year, according to the Northern Sea Route Administration.

This sharp increase in shipping traffic, however, is adding to safety risks in the Arctic region, along with hazards such as perennial ice cover, unpredictable weather, and reduced availability of GNSS data that ships rely on to navigate. GNSS is also vulnerable to interference from space weather and threats from jamming by criminal means. Therefore, advanced resilient navigation technologies are vital to ensure that vessels can travel these shipping routes safely and efficiently, even if GNSS systems fail.

Adrian Munda, Nautical Manager – Safety and Environment, at the UK Chamber of Shipping said, “These new routes are undoubtedly an exciting prospect, and offer great advantage in terms of reduced fuel usage and consequent benefits for the environment. There are issues of safety still to

be addressed, for example the ability to conduct search and rescue in such remote regions and the quality of hydrographic survey. We look forward to hearing the outcome of this activity and would support any development that is set to improve navigational safety.”

Martin Bransby, Research & Radionavigation Manager at the GLAs, commented, “Resilient PNT is increasingly accepted as requisite to shipping safety around the world. The GLAs are recognised as technical leaders in this field, and it’s of paramount importance that we collaborate with other leading nations to encourage worldwide excellence in shipping navigation safety and efficiency.”

The U.K. recently became the first in the world to begin implementing initial operational capability of differential eLoran stations that will provide alternative position, navigation and timing information available to ships equipped with eLoran receivers. Seven stations along the South and East coast of the U.K. will deliver initial operational capability by Summer 2014.

Dr. Victor Tsarev, Director General of the Internavigation Research and Technology Center said, “There are many technical areas of mutual interest for the development of eLoran in the U.K. and Ireland and eChayka in Russia for which a future exchange of information and technical cooperation will be beneficial for both parties.”

John Erik Hagen, Regional Director, Norwegian Coastal Administration and Coordinator of the IMO CG on e-navigation said, “From a Norwegian perspective, a changing Arctic presents major opportunities and challenges for Norway – as a maritime nation and as an Arctic coastal state. Shipping in Arctic waters must comply with the highest standards of health, safety and the environment to prevent and limit accidents and harmful emissions.”

South Korea, which was the victim of a 16-day GPS jamming attack by North Korea last year, has also expressed that it wants to establish an eLoran alliance with the U.K. Currently, South Korea is pursuing its own rollout of differential eLoran stations, due for full capability by 2020.