British waterway deploys ship safety aid to combat GPS attacks

Jonathan Saul, Reuters

(Reuters) - Britain is deploying a back-up ship navigation system in the English Channel, one of the world's busiest shipping lanes, to tackle the growing risks of disruptions of vessel satellite devices and jamming by criminal gangs.

Mariners increasingly rely on global navigation systems that use satellite signals to find a location or keep exact time. One of the most well known is the Global Positioning System or GPS.

The General Lighthouse Authorities of the United Kingdom and Ireland [1] (GLA) this week launched a radio-based back-up system called eLoran to counter the threats of jamming or signal loss of GPS devices. Ships will need to install receiver equipment.

"When a sat nav goes out, it matters a lot to have something secure to fall back on," David Last, special adviser to the GLA, said. "It (eLoran) is an almost perfect back-up."

If its GPS system ceases to function, a ship risks running aground or colliding with other vessels.

Last said all GPS systems run the risk of signal loss due to solar weather effects. Also cheap jamming devices are widely available in Britain and have been used by criminal gangs to disable tracking systems on high-value stolen cars.

"There have been major incidents in which North Korea [2] has jammed GPS in South Korea. The outcome is that they lost not just ship navigation, but it affected all of their mobile phone networks and their military systems. We do know terrorists have been arrested in the U.S. with GPS jamming equipment," Last said. "So GPS is very vulnerable."

The eLoran system works on earth-based radio systems to provide alternative position and timing signals for navigation, Last said.

It has been deployed in the Dover area, which includes the Dover Strait waterway in the English Channel, through which an average of 500 ships pass daily.

"We are picking up significant modes of jamming in the UK including in the Dover area," Last said.

The Dover installation is the first of up to seven to be rolled-out along Britain's east coast, including the ports of Middlesbrough in England and Grangemouth and

Aberdeen in Scotland, the GLA said.

Passenger line P&O Ferries has already installed the equipment on one of its vessels.

"Satellite navigation systems are vulnerable to degradation of signal strength, and our ships have also experienced occasional loss of signal," Simon Richardson, head of safety management at P&O Ferries, said.

"We see eLoran as the most effective solution to countering the problem."

(editing by Jane Baird)

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