

Misplaced Scepticism ?

In the British Isles the first waterborne craft made of iron were canal barges and, almost certainly, the first of these was a 70 foot craft, built by a Lancashire ironfounder in 1787. She was purely experimental and it was almost three decades before an iron vessel entered commercial service -again on a canal. These vessels had to be built in sections and taken to the banks of a nearby waterway where they would be reassembled. The builders were subject to a barrage of sceptical abuse from passing bargemen on their wooden craft and even from the craftsmen who built them. Few were willing to accept the reality that ships built of iron could actually float – and carry cargo – but most based their disbelief on the recognition that these craft threatened their livelihood. Despite this, however, the construction of iron ships continued apace with the majority being built inland and then transported in pieces for assembly alongside a waterway.

Obviously, the builders of wooden ships refuted any suggestion that they should convert to iron: They had neither the means nor the skilled workmen to use this "new" material and the prejudice was strongest in the Royal Dockyards where, for many years after commercial iron ships had become almost commonplace, the Admiralty refused to recognise their worth and, as late as 1850 they forbade the carriage of trans-Atlantic mails in other than wooden ships. Much of their scepticism was based on their fear of what damage shot might inflict on iron hulls. Wooden hulls, pierced by enemy gunfire could be plugged and repaired reasonably easily - but iron hulls were another matter altogether. Others feared that their magnetic compasses would be affected by the mass of iron surround - and there was little effort to experiment to ascertain the facts. Fortunately, private enterprise prevailed and the development of iron seafaring craft for commercial purposes continued - and eventually the Admiralty accepted the reality of their worth.

Today, there are many who regard to operation of the autonomous ship with much the same scepticism- and this despite the fact that 2020 will see the launch of the world's first fully autonomous cargo vessel. She will be employed carrying agricultural fertiliser between Norwegian ports and, in accordance with current International shipping law, will have to remain within Norwegian territorial waters at all times. However, in early 2017 the International Maritime Organisation convened a discussion that could allow unmanned ships to operate globally thus allowing crewless vessels to trade worldwide - "with the potential for cheaper shipping with fewer accidents". This potential has been challenged repeatedly and many are of the opinion that any accidents that do happen could be much more severe.

The major issue is the safety of relying totally on computers to operate ships over vast distances. There are those who contend that the majority of today's accidents - collisions and groundings — are the result of on-board human failings and, if it is accepted that the shore-based computer operators will not make the same mistakes as shipborne crew members then the advantages are obvious. Indeed, a study of some 100 accidents found that the likelihood of collisions and groundings might have been decreased significantly if the casualties had been unmanned ...BUT.. ..when accidents do happen the consequences might be more severe without a crew to deal with the situation. Undoubtedly, the initial outlay on an unmanned vessel will be less than that on a conventional one. There are obvious construction savings to be made in respect of accommodation and facilities and, of course, no crew wages. Initially the technology will be expensive but the cost will probably reduce as time passes.

Operational costs are an uncertainty and many query the ability of the autonomous ship to use cheap heavy fuel without the onboard heating and purification carried out today by the engine room crew. That being the case they would have to use expensive marine- grade diesel and operating costs would soar - unless they convert to LNG or battery-powered electricity.

Despite the widespread uncertainty, many millions of dollars are being expended in research and technology that, hopefully, will lead to the commercial "acceptance" of the autonomous ship and Rolls-Royce has already demonstrated the feasibility of the first remote-controlled unmanned vessel.

Undoubtedly, the Norwegian "Yara Birkeland" will attract a VERY great deal of attention when she launches in 2020 , if by that time, IMO's discussions bear fruit and she will be permitted to venture outside Norwegian territorial waters.

The consequences of making many thousands of seafarers redundant will have dire consequences globally and the rapid development of "cyber warfare" will surely lead to much head-scratching as to what might happen in the event of hostilities.



What with the autonomous electric car, the autonomous ship (and, who knows, the autonomous short-haul cargo carrying aircraft) there are interesting times ahead.

At the end of January, the Canadian Standing Senate Committee on Transport and Communications delivered its report on the deployment of "automated vehicles". The key message arising from the report, almost certainly, is:

"Canada is ill-prepared for the fast-approaching future of Transportation". Who is?