

TECHNOLOGICAL INNOVATIONS
AND THE LINER CONFERENCE SYSTEM
THE CASE OF THE NORTH ATLANTIC, 1850-1984

BY

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Ladies and Gentlemen,

In front of you stands a schizophrenic speaker.

By training I am supposed to be an expert on our maritime past. By profession, as a policy adviser in the Netherlands Ministry of Transport, I am supposed to be an expert on our maritime present and future ¹. Most of the time I am able to deal with this Jekyll and Hyde complex quite well. Occasionally, however, both of us get really frustrated, in particular when we try to put contemporary maritime issues into a historical perspective. The cause of this frustration is as simple as it is aggravating : only a few maritime historians have extended their research to cover developments after 1945 ².

Take, for example, the liner conference. From its inception, this system has been the subject of agitated debate all over the world. Until ten or twenty years ago this debate focused on the question whether conferences were undesirable cartels or necessary and healthy instruments of market regulation. At this moment, however, the overriding issue seems to be : will the conference system live to see the year 2000 or will it be dead and buried by then ?

People from the industry, politicians, civil servants, economists, lawyers and others have been actively participating in this debate. As far as I know, however, historians have remained silent on the subject. Serious historical studies dealing with the conference system are limited in scope and not particularly large in number ; those

¹ The views expressed in this paper are the author's personal responsibility and do not necessarily reflect those of his present employer, the Netherland's Ministry of Transport and Public Works. The author wishes to thank many of his colleagues in the field of international maritime policy for their contributions to this paper, in particular Mrs. Anneke Siersema of the Documentation Section of the Directorate General Shipping and Maritime Affairs.

² In September 1988 *The Newsletter of the Maritime Economic History Group* (vol. II, no. 2), published an extensive international directory of people undertaking research in the field of maritime economic history. This statement is based on careful scrutiny of that directory.

also dealing with the post-war years virtually nonexistent. I personally think that this is regrettable. After all, conferences have dominated liner shipping for more than a century now. Surely historical research could throw some light on the reasons behind their success and at the same time provide us with clues to their potential for survival in the future.

It is not my intention today to present you with an in-depth historical analysis of the economic viability of the liner conference system. Time and, above all, my personal professional limitations will simply not permit me to do so.

I will therefore limit my presentation to some general remarks on the liner trade on the North Atlantic and focus on the two major technological innovations that have come about between the middle of last century and the present : steam and containers. In doing so I hope to show that concentration of capital and co-operation between shipping lines were of vital importance to the successful introduction of new technology.

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Let me start out by broadly reviewing the economic implications of the introduction of steam propulsion³.

It was first applied successfully in long-distance shipping around the middle of the nineteenth century. Generally speaking, it was steam that gave birth to liner shipping.

The benefits of liner shipping were numerous. It provided producers with a weatherproof supply of raw materials and reliable delivery of their products. Consumers reaped the fruits of steam in similar fashion. As production increased, shipowners were able to gain by the growth in demand for tonnage. In short : steam opened up new markets for rapidly growing industries.

Where there are benefits, however, there are bound to be costs as well. The cost of constructing a steamship was at least three times as high as that of a sailing ship of the same tonnage. To maintain a regular service it took not one but a number of these expensive vessels, vessels that were supposed to sail not when there was sufficient cargo but when the schedule indicated that they should sail. Liner services therefore necessitated more active marketing and an extensive and permanent network of agencies. Propulsion was no longer as free as the wind. Expert, well-trained crews were required to run the steamships, crews that demanded higher wages and could no longer be made redundant after each journey.

In other words, liner shipping required bigger investments on a more permanent basis than did traditional shipping, which in turn led to fundamental changes in the

³ Works on which the information in the following paragraphs is based include : F. J. A. BROEZE, *Rederij*, in : *Maritieme Geschiedenis der Nederlanden*, parts 3 & 4, Bussum, 1977-1978 ; B. M. DEAKIN & T. SEWARD, *Shipping Conferences*, Cambridge, 1973 ; A. HERMAN, *Shipping Conferences*, Deventer, 1983 ; D. MARX, *International Shipping Cartels*, Princeton, 1953.

structure of the shipping industry. At the entrepreneurial level it soon became clear that the organisation of shipping companies had to be adapted to the new financial and managerial requirements⁴. In the past, in countries like Belgium and the Netherlands, the construction or purchase of a sailing ship was usually financed by a small number of often closely related merchants, bankers and other well-to-do businessmen. To this end they organised themselves into a small company that was set up for the sole purpose of operating one particular sailing ship. After each journey the ship had made, all profits were distributed among the participants. Once the ship had been wrecked or, in less dramatic fashion, had outlived its profitable use, the company was usually liquidated.

Obviously these small "one-ship companies" were not suited to long-term liner shipping. They lacked the much-needed basis for continuity, the possibility of reserving money for future investments and, last but not least, they were ill-equipped to tap sources for the huge amounts of capital that liner shipping required. The limited liability company, or "société anonyme", "naamloze vennootschap" and "Actiengesellschaft", was able to perform all this. It therefore rapidly became the entrepreneurial instrument for liner shipping.

Looking at the dawn of the North Atlantic liner trade one can clearly discern this popularity of the limited liability company. The well-known German company HAPAG, for example, was founded in 1847 as an "Aktiengesellschaft", the "Hamburg Amerikanische Packetfahrt Aktien Gesellschaft". When the Dutch company, the "Holland Amerika Lijn" (HAL), first started business in 1873, it did so under the name of "Nederlandsche Amerikaansche Stoomvaartmaatschappij" (NASM), as a "naamloze vennootschap". The Belgian "Red Star Line" was run by the "SA de Navigation Belge-Américaine" that was founded in 1872.

This did not mean, however, that the limited liability company would necessarily guarantee success. The Dutch company "Rotterdamsche Amerikaansche Stoomvaart Maatschappij" (RASM), for example, failed to attract its required starting capital of one million Dutch guilders in 1850. Similar problems of raising the necessary capital frustrated a Belgian government-sponsored attempt to open a line with two steamships to New York in 1841. In the end only one ship, called the "British Queen", was bought, but had to be sold several years later. Only the United Kingdom with its technological and financial lead was able to make the change to steam in relatively rapid and successful fashion. As early as 1839, for example, the starting capital of the Cunard Line, some 270,000 pounds, was raised privately in the space of one week.

The introduction of steam also led to changes in national and international competition in shipping.

Steam brought about a considerable increase in capacity. In the Europe-Far East trade, for example, cargo that at the beginning of the nineteenth century had been transported by four sailing ships was carried by one steamer in half the time at the

⁴ F. J. A. BROEZE, *op. cit.* ; ID., *De stad Schiedam*, The Hague, 1978.

end of the same century⁵. Although the reduction in time in this trade was to a major extent due to the opening of the Suez Canal, the liner trade across the North Atlantic witnessed a similar tendency towards increased capacity. As long as demand reflected a comparable increase the results of this phenomenon were bearable. When demand slumped, freight rates fell and competition became fierce.

The fire of competition was further kindled by the fact that liner companies had had to specialise on specific routes. This meant for one thing that they could not very easily transfer their valuable ships to other trades when competition became too strong. They were forced to fight it out with their competitors in the same trade or perish. In contrast to the prevailing Darwinian creed of "the survival of the fittest", however, liner companies soon came to adopt the "Kropotkinesque" strategy of "mutual aid" or, to use the more common description, of conferences.

In 1875 the first true conference, the Calcutta Conference, was formed. Around the same time all hell broke loose on the North Atlantic. The early 1870s had been boom years in this trade and had seen many new lines spring up. Soon, however, a worldwide recession set in that sharply reduced the supply of cargo as well the stream of emigrants, the backbone of the trade. This caused a devastating rate war. In an exemplary way the history of HAPAG illustrates the results of this for lines companies that operated on the North Atlantic⁶.

In 1873 HAPAG's lead role in the trade was challenged by the arrival of a new competitor, the Adler Line. This Line operated a weekly service on HAPAG's homeground, Hamburg to New York, with seven brand-new steamers. Confronted with the depression, the line drastically reduced its rates. Both HAPAG and its Bremen counterpart "Norddeutscher Lloyd" had no choice but to follow suit. After one and a half year of bitter competition an arrangement between HAPAG and the Adler Line was agreed upon. HAPAG bought the Adler Line's six remaining ships.

HAPAG's peace was shortlived, however. In June of 1881 Edward Carr started a liner service, again from Hamburg to New York. The Carr Line was soon so successful that HAPAG and Lloyd were forced to lower their tariffs. Negotiations on a takeover of the Carr Line by HAPAG started but were frustrated in 1886. In March of that year Carr Line merged with the America Line and adopted the name "Union Line". The combined tonnage of the merged lines was approaching HAPAG's capacity on this route. This reinforced bargaining power of HAPAG's opponents eventually forged a pooling agreement between the two, by which, among others, shares of transport of passengers were settled.

Again, HAPAG was not permitted to rest on its laurels. The order books of the shipyards showed that within a few years an overcapacity would reign on the Atlantic.

⁵ A. HERMAN, *op. cit.*

⁶ Works on which the following paragraphs are based include: F. J. A. BROEZE, *Rederij, cit. supra*; O. SEILER, *Bridge across the Atlantic, Hamburg-Bremen*, 1983; A. D. WENTHOLT, *Brug over den Oceaen, Rotterdam-The Hague*, 1973.

A more permanent solution than costly mergers, takeovers or bilateral pooling agreements, not to mention bankruptcy, had to be found. At the initiative of HAPAG's chairman Albert Ballin the various European lines therefore started negotiations on a Conference Pool. This pool, officially entitled "Nordatlantischer Dampfer-Linien Verband" (NDLV), finally came into being in January 1892. Apart from HAPAG and the "Norddeutscher Lloyd", the NASM (later called the HAL) and the Red Star Line signed the agreement. British lines like Cunard refused to join and established their own Atlantic Passenger Conference. Initially the NDLV dealt only with apportioning shares and fixing uniform tariffs in the transport of emigrants. Soon, however, the agreement was extended to cover other types of passengers and cargos as well.

Less than ten years later, developments on the other side of the Atlantic caused another major move towards co-operation between lines and further concentration of capital. During the second half of the nineteenth century American shipping had waned. In 1860, for example, American tonnage had been slightly smaller than the British, whereas by 1900 British tonnage on the Atlantic was thirteen times as big as the American. Of all ships calling on American ports a mere 13% flew the Stars and Stripes. The American government of the time was in a protectionist mood, however, and seemed prepared to strengthen its merchant fleet through subsidisation.

The American Banker Morgan together with other powerful American Companies planned to make use of this development by expanding American investments in shipping. In 1901 he acquired a number of liner companies, including the American lines "White Star", "Atlantic Transport", and "American Line", the Belgian "Red Star Line", the "Dominion Line" and the newly established "British Leyland Line". This combination threatened to become an extremely dominant force on the North Atlantic, if only because at the same time Morgan tried to combine it with the major American railway lines serving the American ports. He aimed at achieving exclusive rights, thereby cutting the European lines off from U.S. inland transport. He then started negotiation with Cunard, "Norddeutscher Loyd" and HAPAG to create a combined trust company. As a result of an intervention by the British government, Cunard withdrew, but early in 1902 negotiations with both German lines were successful and the "International Mercantile Marine Company" (IMMC) was formed. The originally intended exchange of shares between the three companies was replaced by mutual guarantees of dividends. Shortly afterwards, the "Holland Amerika Lijn" sold 51% of its shares to the Harland and Wolff shipyard, the European representative of IMMC. In its turn Harland sold half of these shares to IMMC and the other half to HAPAG and "Norddeutscher Lloyd".

Generally speaking, these European lines gained little direct financial benefit from IMMC, at least until World War I, partly because Morgan's dreams of subsidies did not come true. Fear of being driven out of the market was the overriding motivation to surrender to IMMC. In that respect IMMC did prove to be profitable. It replaced fierce competition by consultation and co-operation among its associated lines.

When, in the years before World War I, the U.S. House of Representatives conducted its famous investigation into shipping combines, it was able to list no fewer than 15 agreements relating to passenger among 31 lines and 23 agreements relating to freight among more than 40 lines. Steam and time had turned the North Atlantic into a cobweb of co-operation.

Ladies and Gentlemen,

As even maritime historians know, time does not sail, it flies. I will therefore jump several decades and pass on to the 1960s to find out how this North Atlantic cobweb was affected by the advent of the container.

Numerous authors have remarked on the historical similarities between the introduction of steam and that of the container⁷. Unfortunately they have done so only in passing. As far as I know, nobody has ever attempted an in-depth comparison between these two revolutions in modern shipping. One of the reasons for this neglect may be that at first glance similarities are so obvious as to stifle any interest in exploring the subject further. What, then, are these obvious similarities?

First of all, there is the increase in productivity that resulted from the introduction of new technology⁸. It is estimated that in the early 1960s conventional break bulk liner-ships spent as much as 50 to 60% of their time in port. Owing to their more efficient method of loading and unloading cargo, containerships, on the other hand, spend only approximately 25% of their time in port. Add to that the fact that a containership can carry five times as much cargo and it will be clear that productivity underwent revolutionary changes as a result of containerisation. In this way, by 1970 one containership was able to replace twelve to fifteen conventional ships on the North Atlantic.

The second obvious similarity is the necessary increase in investment. Prices of new containerships were at least roughly three times as high as those of conventional linerships. A substantial part of this price was related to the purchase of the containers themselves. For every container used at sea, two were required for use on land. In 1970 a fleet of six containerships with a carrying capacity of 1130 TEU (Twenty Foot Equivalent Units or standard-size containers) required more than 20,000 containers, which alone cost some \$40 million.

Containerisation also had a revolutionary impact on cargo handling in ports. Special gantry cranes and sophisticated transportation equipment (straddle carriers) were needed to ensure efficient loading, unloading and stacking on the quays.

⁷ See, for instance : A. HERMAN, *op. cit.*, p. 135, and O. SEILER, *op. cit.*, p. 49.

⁸ Works on which the following paragraphs are based include : F. G. EBEL, *Evolution of the Concept and Adoption of the Marine and Intermodal Container*, in : *Case Studies in Maritime Innovation*, Washington, 1978 ; J. R. IMMER, *Container Services of the North Atlantic*, Washington, 1967 ; T. RINMAN & R. BRODEFORS, *The Commercial History of Shipping*, Gothenburg, 1983 ; U.N. Department of Economic and Social Affairs, *Containers, Pallets and other Unitized Methods for the Intermodal Movement of Freight : Application to Developing Countries*, New York, 1970.

Construction or purchase of such dedicated container terminals was and is a very costly affair.

Last but not least, containers revolutionised the whole concept of transportation. Shipping companies would and could no longer content themselves with transporting cargo from port to port. In order to ensure themselves a regular supply of cargo they had to offer their customers the most efficient service possible. They had to go out and collect the cargo at the place of production and deliver it to the final destination. Nowadays this strategy is better known as door-to-door transport. To be able to achieve this, shipping companies had to invest in inland transportation : trucks, river barges, rail equipment, etc. In turn, these changes towards so-called intermodal transport necessitated a new integrated logistic organisation and the widespread application of automatic data processing.

The North Atlantic was the first major international liner trade to be affected by containerisation. In the fifties and early sixties, in the wake of experiments by the U.S. Army Transportation Corps, a number of American shipping companies had successfully introduced the container to some domestic trades. Oddly enough, it remained for a land transportation company to strike the spark that fired containerisation in international liner shipping. The experiment began when McLean Industries, the parent company of McLean Trucking, acquired a steamship line, "Pan Atlantic Steamship Company", later renamed "Sea-Land Service". It was Sea-Land that initiated the first weekly full container service across the Atlantic. In May 1966 its vessel "Fairland" made its maiden voyage from New York to Bremen.

Reaction to this initiative by competing lines like "United States Lines" (USL) was swift. At the time of the Fairland's first trip no less than twelve full container ships were already on order. A market study at the time predicted that by 1975 about 50% of all cargo on the North Atlantic would be containerised⁹. In reality, things worked out differently : in 1968, 28% of all commercial cargo on the North Atlantic was already containerised. Barely two years later, in the second half of 1969, this percentage had grown to a staggering 61%¹⁰. In less than five years the container, like a Caesar, had come, seen and conquered the trade.

By 1970 this rapid, wholesale introduction of new full container ships together with only a minimal increase in trade had created an overcapacity of 30 to 50%¹¹. The ensuing rate war among container operators produced results that were quite similar to those of the rate war a hundred years before.

Two tables in the excellent study on *Liner Conferences in the Container Age* by Sletmo and Williams mirror these results very clearly¹². The first lists those shipping companies that offered capacity on the eastbound leg of the North Atlantic early in 1960. The total number of lines at the time was 28. The second table gives the same

⁹ J. R. IMMER, *op. cit.*, p. 71.

¹⁰ O.E.C.D., *Developments and Problems of Seaborne Container Transport, 1970*, Paris, 1971.

¹¹ O.E.C.D., *op. cit.*

¹² G. L. SLETMO & E. W. WILLIAMS, *Liner Conferences in the Container Age*, New York, 1981.

information for early 1975, a time when the total number of lines had been reduced to 17. The total volume of capacity offered, in terms of Gross Register Tons however, had remained more or less the same, slightly over 5 million GRT.

The tables also show that 57% of the lines operating in 1960 had disappeared by 1975. Among those to be forced out of the market were eight well-known top operators such as Furness, States Marine and Moore McCormack.

To find out what the other lines had done to stay in the market, we must again turn our attention to the afore-mentioned tables. The four top lines in 1960, Cunard, USL, HAL and Furness Lines, provided about 70% of the capacity offered. Fifteen years later these same lines provided only about 17%. The top four in 1975 consisted of Sea-Land, Seatrain Lines, Atlantic Container Line and USL. Only USL had been able to retain its independent leading position. HAL and Cunard had had to combine their efforts with other lines like the "Swedish Transatlantic Line", the "Wallenius Line", the "Compagnie Générale Maritime" and the "French Line" to remain active on the North Atlantic. In 1966, at the initiative of HAL and Wallenius they set up a consortium called "Atlantic Container Line" (ACL)¹³. Three years later shipping firms from the U.K., Belgium and Hong Kong ("Bristol City Line", "Belgian Line" and "Clark Transport") set up a consortium to run the so-called "Dart Container-line"¹⁴.

Formation of consortia like ACL and Dart was and is an increasingly popular response on the part of smaller shipping lines to the demands of containerisation¹⁵. Nowadays, consortia are to be found in all major international liner trades in the world. It is very difficult to give an exact definition of the "consortium" phenomenon as they appear in various forms. Generally speaking, then, consortia aim at pooling a number of essential activities required for operating a liner service. Some consortia are virtual mergers of shipping lines, others constitute a looser form of co-operation. ACL is a legal entity distinct from its members. The members of ACL charter their vessels to the consortium, which operates them under its own name. The individual members act as agents and organs of the consortium, pays them for the vessels chartered and distributes their dividends according to the number of shares they hold in ACL. The members also receive agency fees for their activities in canvassing cargoes.

Though at first sight many consortia appear to be some new sort of conference, in practice they are not. They usually operate within a conference and therefore do not infringe on one of the conference's essential powers, that of rate fixing.

¹³ Information on ACL is to be found in the following publications: R. KYLE, *Competition and Co-operation in the U.S. Liner Industry: A Case Study of the North Atlantic Trade Routes*, Washington, U.S. Department of Transportation, 1985; T. RINMAN & R. BRODEFORS, *op. cit.*; A. D. WENTHOLT, *op. cit.*

¹⁴ R. KYLE, *op. cit.*

¹⁵ Information on consortia in general is to be found in: A. HERMAN, *op. cit.*; O.E.C.D., *op. cit.*; *Role of Consortia in Liner Shipping: Additional Comments by CAACE and CENSA*, unpublished submission of CAACE and CENSA to the EC Commission, 1986.

Although probably the most interesting, consortium formation was not the only result of containerisation on the North Atlantic. Mergers were another. The old German rivals, HAPAG and "Norddeutsche Lloyd" for instance, had started a joint service as far back as 1930¹⁶. In the wake of the Sea-Land's initiative, in November 1967 they decided to set up a joint venture, the "HAPAG-Lloyd Container Lines". Two years later they took the next, logical step. To start container services in the world's major trades, the North Atlantic, Australia and the Far East, HAPAG and Lloyd needed to raise more than one billion marks. Neither of them could come up with this capital independently and so, in 1970, they decided to merge and form the HAPAG-Lloyd company.

Another less drastic reaction was the conclusion of joint venture agreements. The most recent and spectacular example of such an agreement is that concluded between Sea-Land, Trans Freight Lines and Nedlloyd¹⁷. In November 1986 USL went bankrupt and several months later its twelve large full containerships were bought by Sea-Land. Four of these are now being used on the North Atlantic. Both TFL and Nedlloyd contribute to the operating costs of these ships and have chartered part of their capacity, by way of a so-called slot charter, for a minimum of three years.

Last but not least, the past twenty years have also witnessed a distinct development towards concentration within the conference system itself¹⁸. At the start of the container revolution in the mid-sixties, five basic conference agreements were in existence. The vast majority of shipping lines were members of at least one of these conferences. As a result they were always able to control a major share of the trade. In 1968 the conference lines carried approximately 77% of all liner cargo, in 1975 roughly 93%. For various reasons, however, this did not prevent the outbreak of rate wars, as the situation in the early seventies clearly proved. The rate war of the time was solved by concluding a pool agreement. In 1972 the existing conferences decided to co-operate more closely and formed some sort of "superconference" called the "Associated North Atlantic Freight Conference"¹⁹. Its objectives were to confer together from time to time to discuss a broad range of issues. Even though the agreement specifically excluded rate matters from the list of subjects to be discussed, the fact that the various conferences on the route got together to some extent lessened the competition among them and resulted in restricting alternative services available to shippers on the given trade. This form of conference concentration finally resulted some years ago in the creation of two conferences : the "North Europe U.S. Atlantic Conference" (NEAC) and the "U.S. Atlantic North Europe Conference" (ANEC). At the moment ANEC and NEAC are the only conferences active on the North Atlantic²⁰.

¹⁶ O. SEILER, *op. cit.*

¹⁷ *An Atlantic Trio*, in : *Containerisation International*, April 1988.

¹⁸ The following paragraph is based on : R. KYLE, *op. cit.*

¹⁹ A. HERMAN, *op. cit.*

²⁰ *Croner's World Directory of Freight Conferences*, February 1988.

In other words containerisation has woven the cobweb created by steam into two thick strands of co-operation.

Ladies and Gentlemen,

Let me conclude this paper by briefly reverting to my opening remarks. At the time I suggested that research into the recent history of conferences could provide us with clues to their potential for survival in the future. The logical question that now arises from this is, which clues might emerge from the foregoing review of developments on the North Atlantic. I will try to answer this in a general and tentative way.

First of all I hope to have shown that the introduction of both steam and containers resulted in the need for a dramatic increase in investments and an explosion in supply. These two developments, combined with a relatively slow growth in demand for shipping services, led to the onset of fierce competition. The increased need for investments and this fierce competition forced shipowners to co-operate more closely in order not to be thrown out of the market²².

In my opinion, this may lead us to conclude that possible technological innovation on a similar scale in the future will have more or less identical results. In the closing decades of the nineteenth century the necessity for co-operation culminated in the creation of conferences. Nearly a century later, on the other hand, containerisation among other things stimulated the creation of consortia. Conferences, however, did not outlive their usefulness; they merely underwent the same development of concentration. Their capacity for survival on the North Atlantic is all the more remarkable when one realises that conferences operating on the United States have traditionally been among the weakest. To explain this particular feature in detail would require at least another paper²². Suffice it to say that American anti-cartel legislation, embodied in the 1916 and 1984 Shipping Acts, has placed serious restrictions on shipowners as far as concluding commercial agreements among themselves and with shippers is concerned. As a result, conferences operating on the U.S. have always been so-called "open conferences". In other words, any shipping line that wished to join the conference was entitled to do so. This clearly interfered with a conference's ability to exploit a dominating position in a trade to the fullest extent.

On the basis of this last conclusion one is seriously tempted to believe that conferences, these veterans of two revolutions, surely stand a good chance of surviving this century.

And even if conferences, for one reason or another, cease to exist, consortia will still be there, consortia that will then have to assume former conference authority in

²¹ For a general review of this phenomenon see : I. H. CHRZANOWKI, *Concentration and Centralisation of Capital in Shipping*, Saxon House/Lexington Books, 1973.

²² See instead : M. R. LLORCA, *Anti-Trust Exemption of Shipping Conferences*, in : *Journal of Maritime Law and Commerce*, Vol. 6, 1974-1975.

the field of rate fixing. Consortia that will, in reality, be conferences, albeit under another name.

Ladies and Gentlemen,

Last but not least, I hope to have shown that research into the recent history of shipping in general can be an interesting and highly relevant undertaking. Much work is still to be done in this area. In my opinion its rewards promise to be manifold : not merely an extension of our maritime historical knowledge but also an enhanced respect and, who knows, more liberal funding by the shipping industry itself.

The least it can do is cure my split personality.

Thank you for your attention.