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**"Fast Ships - A new era in Shipping"**

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## **FastShips — Summary of speech**

### **IUMU Conference, 1996 in Oslo**

Logistics has moved up to one of the top issues within industries all over the world. The development of trade blocks in Europe, in the Far East, in Africa etc will, similar to the United States, have open borders within these blocks and that, in combination with other reductions of trade barriers, will increase the traffic volume rather drastically.

This will faster than expected focus the need of developing the infrastructure in all countries. Countries that fail to invest in order to meet this challenge will also run a risk of losing new establishments of industry production and raise a problem for their national industry.

Europe, for example, is facing a strong challenge that traffic volumes will increase by 100 percent up to year 2010. The new demand of increasing speed in order to reach short delivery times with almost 100 percent reliability but also to be used as a tool of rationalization will also change the strategies of many transportation companies. The reasons for these demands from most shippers all over the world are a high value of cargoes, the extreme customer orientation of many products, the variety of products, the increase in quality demands, more guaranteed delivery times and much stronger international competition.

For many years, physical distribution costs have been the priority from shippers towards the transportation and also the insurance industry. This is changing, and today we will see more transportation systems in all modes of transportation, based on a more logistical approach than ever before.

An example of this demand is Volvo's goal in year 2000+ to be able to deliver a custom-built car or vehicle within a fortnight to most places around the world. A customer in e.g. Reno, Nevada orders his Volvo as per specific wishes and demands and in 14 days the car will be produced and delivered.

## **VOLVO**

Two main areas must be drastically changed. One will be the need of a very high degree of flexibility in the production and the other one is that we will have to get access to a fast, frequent and reliable transportation and logistics system.

This is the background of our interests and our work with new products in order to find fast ships and also a new operational technique in ports to be able to discharge and load in a few hours. During the last five years we have participated in a number of projects around different types of fast ships, from monohauls all the way up to quadrimarans in order to find out if any of these types can meet our goals and fulfill a reasonable economy and with a reliability and safety needed to guarantee a high degree of punctuality.

Within the passenger sector we see the catamarans strongly coming into operation, but unfortunately, the loading capacity of a catamaran for cargo is not sufficient for the present cargo traffic. Therefore, monohauls seem to be the type to use in the foreseen future. Either it will be a regular ro-ro or container design presently in operation but with much better speed resources or, otherwise, semi-planing design like the FastShip Atlantic concept and probably both types equipped with gas turbines. The last type is capable to make 35–40 knots, also in very heavy weather conditions. If such a service can be established on the north Atlantic realm, for example, it will mean 3½ days' crossing. This together with a daily service makes a very good base for us in Volvo to meet our delivery strategy of totally 14 days to the customer in Reno mentioned above.

However, fast ships consume a lot of fuel, but the new gas turbines, capable of using other types of diesel oil may be like the so called A-55 concept which means a mix of 50 percent diesel and 50 percent water. Tests with this mix have shown extremely interesting results and the present buses in Reno have been the most environmentally compatible type of buses existing in the world. If this mix can be used in the modern gas-turbines we are really moving into a new era of shipping. At the same time, new operational techniques to load and discharge these new ships are also tested in a series of projects. Recently, in the port of Gothenburg we tested the so called Alicon which is an air-cushion-based loading and discharging operation where ships with a loading capacity of 3.000 containers can be discharged and loaded in two hours and reduce the present heavy time spending in ports to a limited hourly operation.

Many container operators of today are working towards a strategy of bigger ships working with the conventional type of scale of economics and it may be a good idea for certain categories of cargo but for more and more cargoes of higher value, the preference will be high frequency and also high speed. This development will of course have a tremendous impact on safety, reliability and the need to avoid any kind of damages. That is why our marine partners at an early stage have to be involved and to discuss what can be done in order to avoid disturbances and risks in such a new concept.

We have had a number of milestones in the development of transportation during mankind's history. In cargo handling we saw evolution moving general cargo over to containers and it looks like we are taking another step developing logistic systems based on high speed modes of transportation.

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