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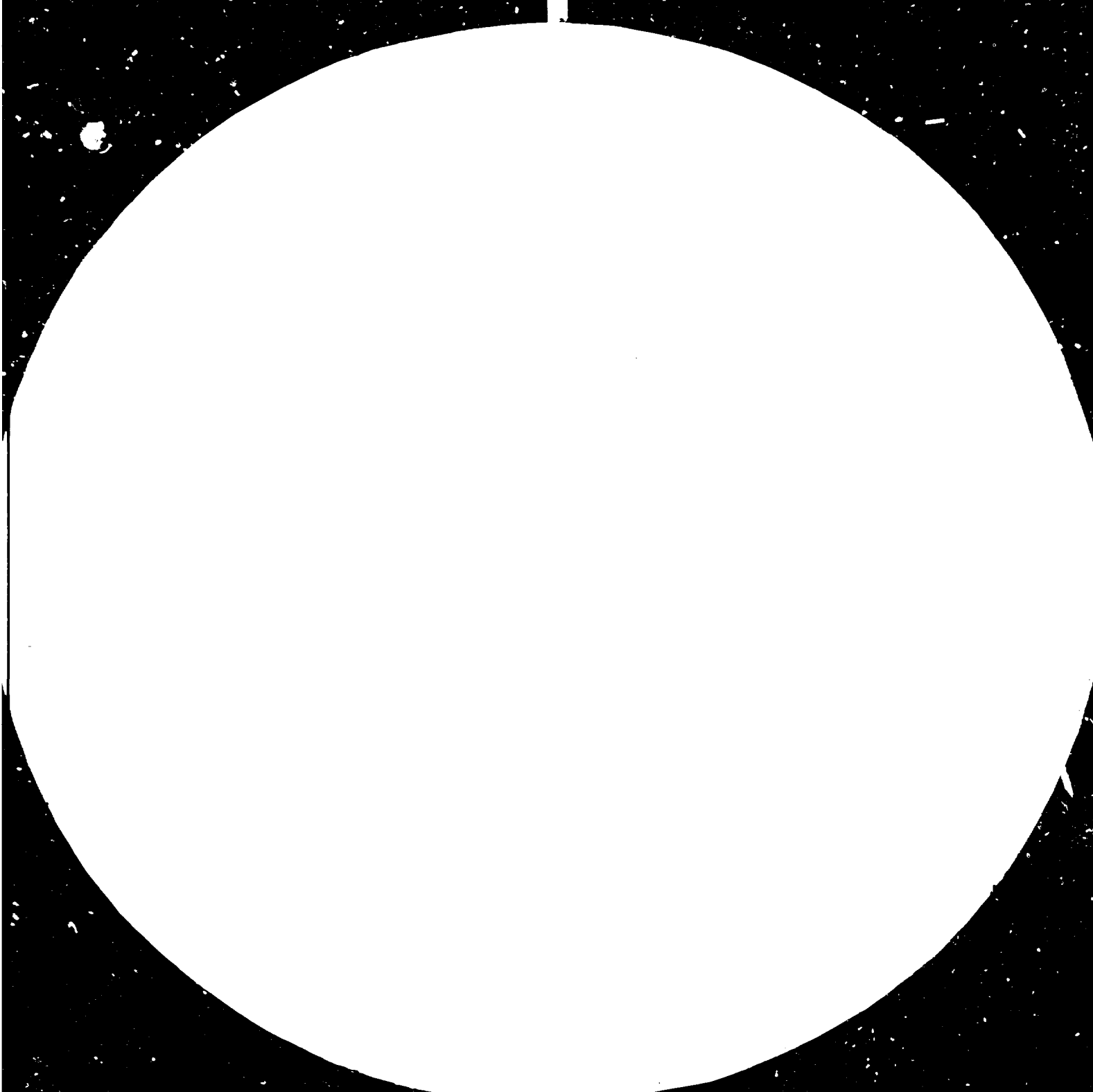
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POLISH EXPERIENCE IN DEVELOPING SHIPBUILDING AND
SHIPREPAIR INDUSTRIES*

prepared by

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POLISH EXPERIENCE IN DEVELOPING SHIPBUILDING & SHIPREPAIR INDUSTRIES

There is a fairly numerous delegation to this Conference from Poland, a very far away country, which has already given assistance to Cuba. Several young cubans got their naval education in Poland and they work now in Cuba. Several Polish experts came over to Cuba and helped to start the work in Cuban shipyards and other industrial enterprises.

When the II World War ended in 1945, we have been in a very similar position as Cuba was only a few years ago with maritime economy totally destroyed. The shipyards were in ruins and in a similarly bad state was the inland industry, producing ships equipment. But our government has quickly decided to develop a great maritime economy within shortest possible time. So we had to start right from the scratch.

Before I'll go any further I have to explain what I mean under the term "maritime economy". It is an important part of national economy and it consists of following fields:

1. harbours and ports, accomodating ships and industry;
2. shipbuilding industry, producing a great variety of ships and naval equipment;
3. shiprepairing industry, which safeguards the right and proper technical condition of ships;
4. merchant fleet, transporting goods at lowest rates;
5. fishing fleet, producing cheapest sort of protein;
6. offshore industry - a new method of exploiting the riches of the oceans;
7. naval education. preparing young people for work in maritime economy. This includes all the stages of education, starting with professional education of workmen, hight education of technicians and economists and finally university education of graduates;
8. maritime infrastructure, allowing the people involved in maritime economy to live properly.

As you will see, ladies and gentlemen, maritime economy is a very complex and a very important part of national economy. If you want to be successful in developing maritime economy you must take into consideration all the fields which I enumerated above. But the topics of our conference concern only shipbuilding and shiprepairing of small vessels. And thus the scope of our discussion has to be limited.

I should like to show you the experiences of my nation over the last almost 40 years since the end of the II World War, all the successes and fall-backs and their causes, so that you could avoid them. I actively participated over these long years in the development of our maritime economy and I would like to share with you my experiences. As you all know, Polish shipbuilding industry has developed extensively in these years and at the moment Poland is one of the top shipbuilding countries in the world, building all types of ships, such as large container and Ro-Ro ships. We have never specialized in construction of large ships such as VLCC's or ULCC's, although we have the facilities to build them. The largest ship built so far was the 130,000 TDW bulk carrier for the Norwegians. Polish shipbuilding industry in 1981 produced 34 ships totalling to 284,240 GRT and 313,770 TDW, of which 96% was for export. There were not only big ships, - in the list of ships built you will find a stern trawlers (115 GRT, 60 TDW) and one shrimp trawler (130 GRT, 80 TDW) built for Mexico. But the main producer of small fishing vessels in Poland are the shiprepairing yards, which are building ships up to 30 m in length and which are not shown in this statistics. A small fishing cutter of 13 m length is being produced for African owners. We have in our delegation an expert in small fishing vessel designing and application of GRP in small ships - Dr. Madey. He will be only too glad to give you any information and explanations on these topics.

I should mention in this place that the Polish industry is organized in two groups:

- United Polish shipyards - represented at this conference by Foreign Trade Enterprise "Centromor" - Mr. Gorczynski.

.. United Polish shiprepairing Yards - represented by Foreign Trade Organization "Navimor" - Mr. Swieczkowcki.

If you want any detailed informations, these gentlemen will be

only too pleased to give them to you. They are here to help you.

There is a general impression, that whichever country can build a ship's hull - this country has developed a shipbuilding industry. Well - this is true only up to certain extent and applies to sailing vessels of old type only. And even there must be mills producing sail cloth and factories producing ropes of all kinds. But when you will want to have a vessel with a mechanical drive - and practically all vessels have it - then you'll begin to look for an engine of a required type and power, for a shafting including stern tube and propeller. These troubles will rapidly increase with the size and complexity of ship to be built. Ship's hull is essentially constructed from one sort of material - it might be steel, timber, GRP or ferrocement. But ship's outfit consists of many different items, such as main power plant, auxiliary machinery, fishing gear, fish working machines, navigating equipment, electronics, insulating material, paints and many other items, sometimes in very small quantities. All this equipment must be of top quality and there are many items, which must be produced and fitted on board to international safety standards such as IMO and under the survey of an inspector. No relaxations are given. While a ship is in service, she must be kept in good technical condition. Maritime environment is very aggressive and moving parts of the machinery are wearing out. So the ship has to undergo surveys according to predetermined requirements and all the necessary repairs have to be carried out. For this purpose you'll need spare parts and a highly qualified team of technical staff to carry out all these repairs skillfully and quickly. I must very strongly stress the need for short cycles of repairs - long cycle is enormously expensive, because the ship does not earn any money, while she is laying idle in the repairyard, and the owner must during that time cover all the overhead costs. These may be very much higher than the actual cost of repair paid to the shipyard.

Shipbuilding yards may do the repairs, but when the production of new ships grows high, then it is better to have separate ship-repairing yards. Quite different skills are required for repairs.

So the speedy development of an industry cooperating with the shipyards is most essential. If you will not do it, then you will be fully dependent from your foreign suppliers, which may stop deliveries any time and bring your shipbuilding industry to a stop. They can stop supply of spare parts and your shiprepairing

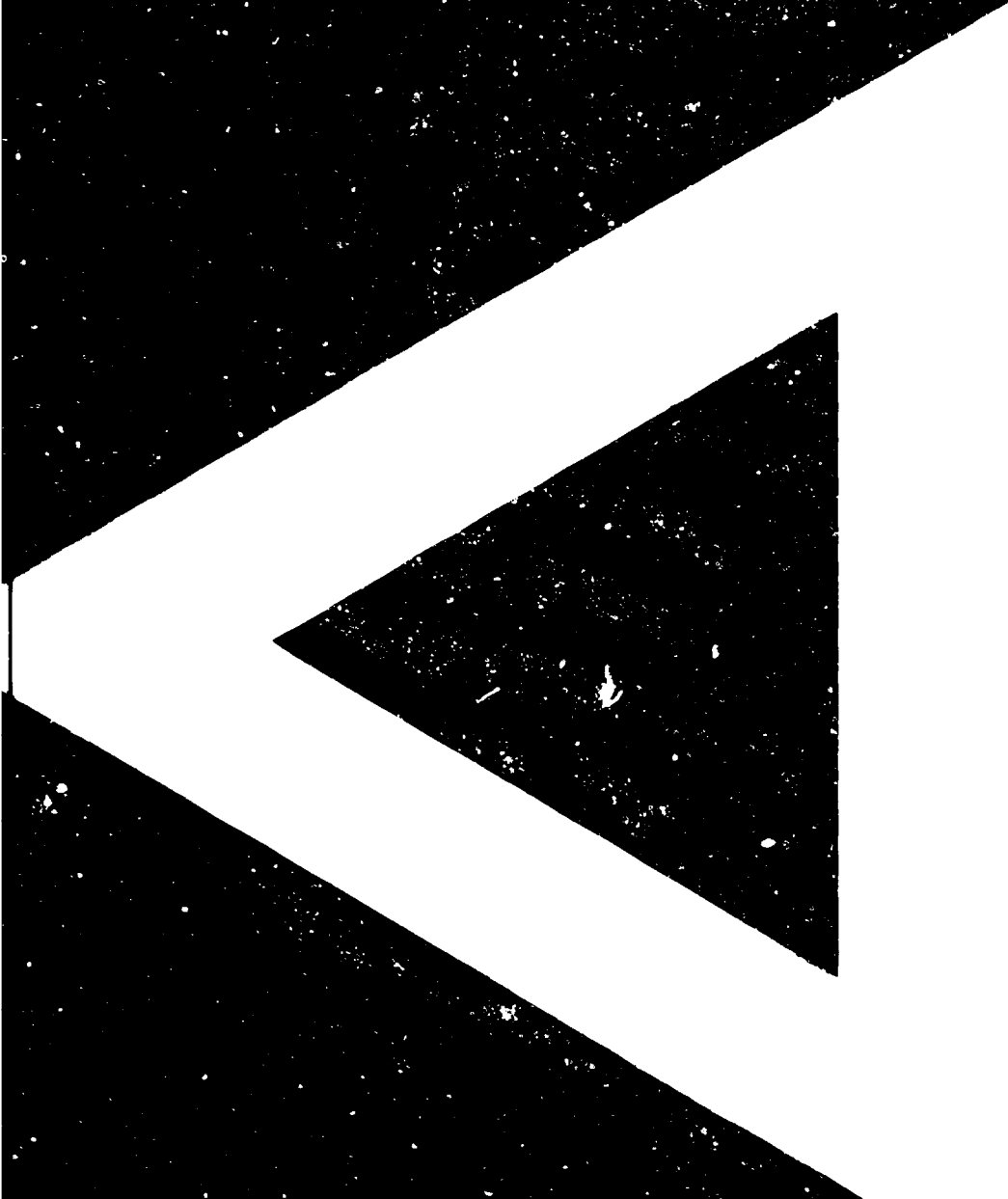
and your fishing fleet will be brought to a halt as well.

The shipyards have to be properly laid out and equipped. For building and repairing of small ships no great investments are required. But there are certain skills and experience required, what would be well kept in mind. In shipbuilding and shiprepairing activities the transport and storing are of greatest importance. So good crange roads and warehouses are essential. The second factor is the amount of labour necessary to build or to repair a ship. This could be considerably decreased by efficient sheltering the working places and by ample supply of mechanical hand tools. Possibilities of automation are very limited. In our delegation we have an expert on shipyard designing, Mr. Kotocki who would be only too pleased to give you any explanations.

Thus professional education is of utmost importance in order to have a well qualified crew. Good schools of all levels will have to be started as early as possible, teaching the necessary number of people in quantities exceeding the present day requirements. It must be kept in mind that to train a graduate in naval architecture or in marine engineering and to give him the necessary practical background before he becomes sufficiently experienced - it takes 10 years. For a technician it takes 7 years and for a skilled workman about 5 years. Only then these people are of full professional value to the industry.

Poland could help all Latin American and Caribbean countries by sharing our experience we have learned during the almost 40 years of hard work. We made several mistakes, which you should avoid, as they are costly and they sometimes throw you back. I would like to finish my paper by a general advice: think carefully before you undertake any action and do work together, helping each other.





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