Ballast Water Problem Challenge: Global Response and Ukraine's perspective in a framework of regional cooperation in the Black Sea



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Odessa GloBallast DS case study, results and lessons to be remembered **2001-2004**



Port Biota Surveys

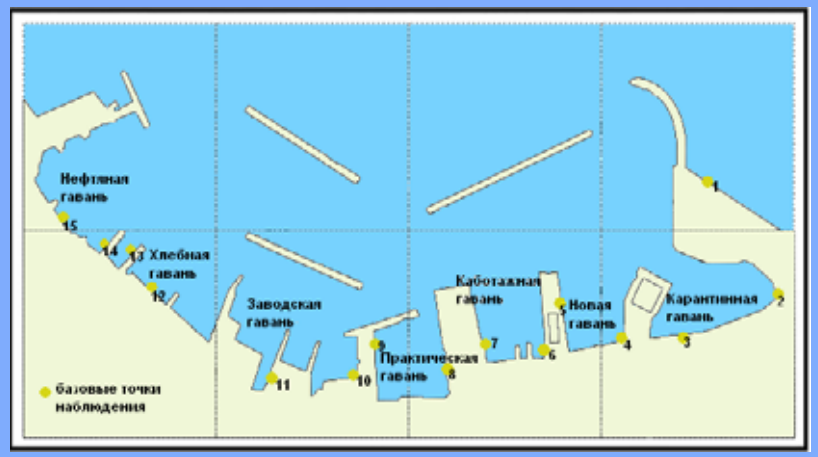
The first stage of Port Baseline Survey in Odessa Port has two expeditions (in warm and cold water periods) in 2001 and 2002 respectively

Results: 29 invasions species are found in water area of the Odessa Port, 19 of them explored for the first time!

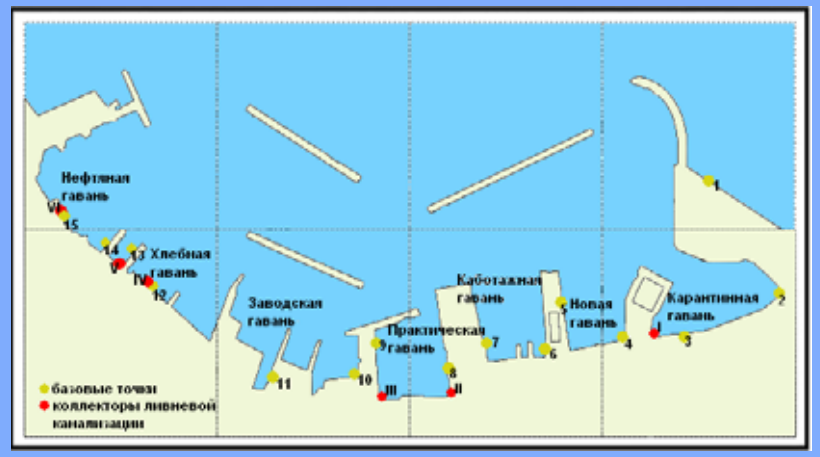




Bacteriological researches / Pathogenic Study in Odessa Port



Location of sampling points in Odessa Port



Location of raining collectors in Odessa Port

Risk Assessment

Risk Assessment data prepared, processed and analyzed

Comparative analysis of ecological parameters of ports-donors and ports-recipients is finalized







Legislation and Regulations

Procedures for collection and processing of BW information from ships (**BW Forms**) entering ports of Ukraine were developed and entered into force by the Order of State Department of Marine and Inland Water Transport № 62 from 11 March, 2001.



National Concept for the Implementation of the International Convention for the Control and Management of Ships Ballast Water & Sediments developed by the CPTF of Ukraine members. It was presented and approved at the 7th CPTF meeting (July 2004)



National Concept for the Implementation of the BW Convention

The Conception covers such issues as:

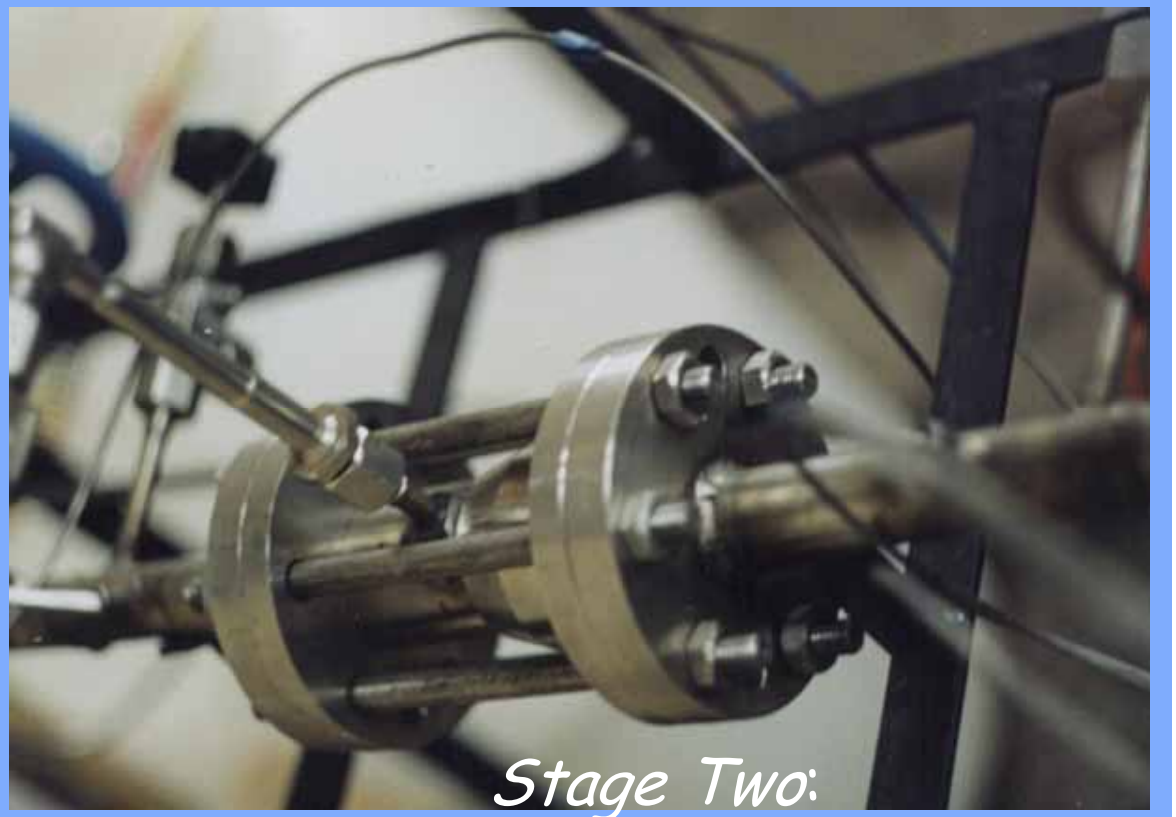
- **Subject and background of ballast problem,**
- **International experience of it resolving on a global scale,**
- **Introductions and their implications in the Black and Azov Sea region and Ukrainian coastal zone,**
- **aims, tasks and content of BW Convention and IMO Guidelines,**
- **General principles of the implementation of the Convention at national level: awareness rising, flag and port state procedures, standards for BW treatment, training and certification of personnel, regional cooperation, changes to national legislation and provisions for the adoption of the Convention by Ukraine.**

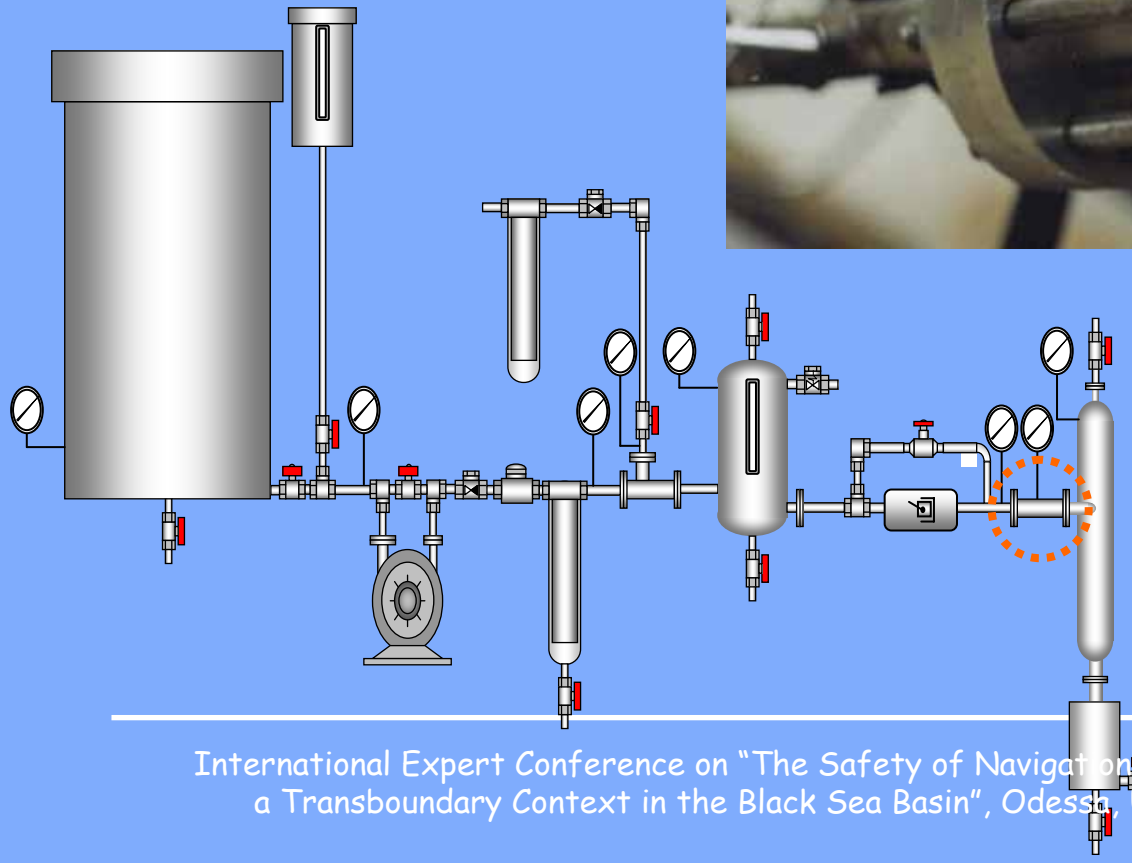


National Conception for the Implementation of BW Convention

Next step is development of the National Programme on the Implementation of the BW Convention

Stage One:
preparing technical specification and test system (1st part of 2003)





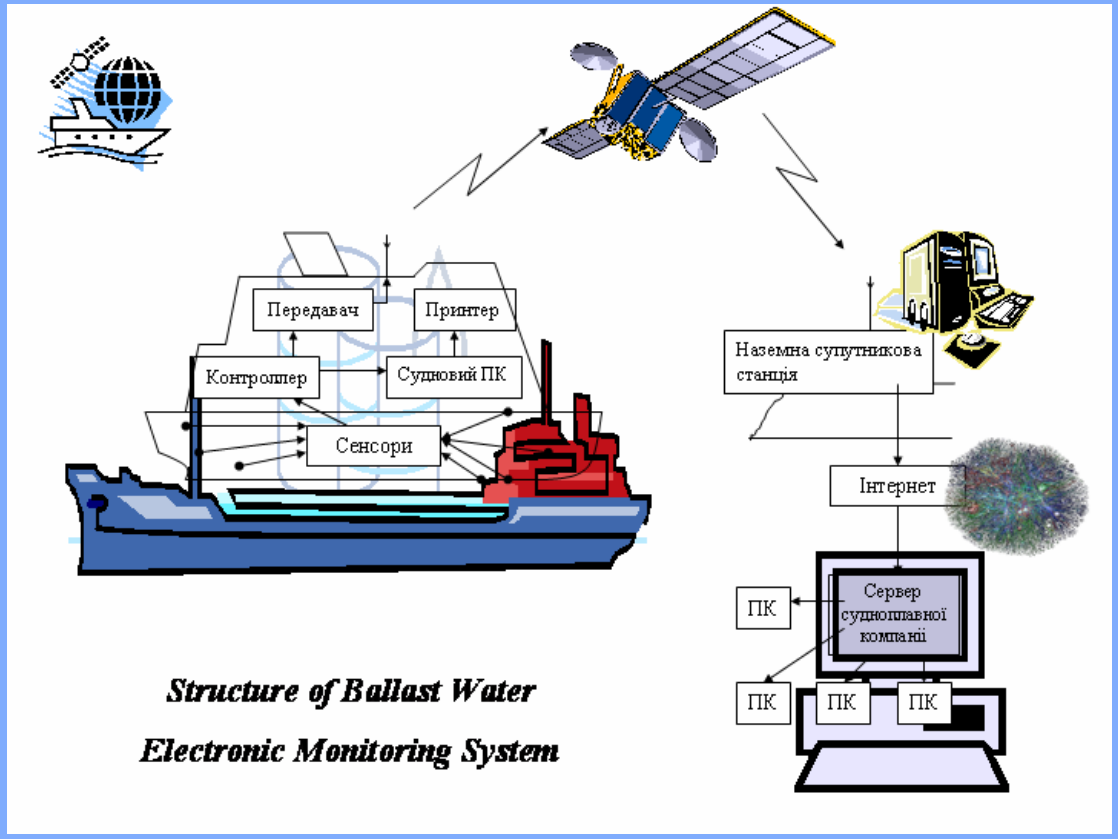
Stage Two:
manufacturing of pilot installation and preparing for laboratory and filed trials (2nd part of 2003).

BW Treatment Installation Based on Hydrodynamic Cavitation and Filtration





R&D in Ukraine



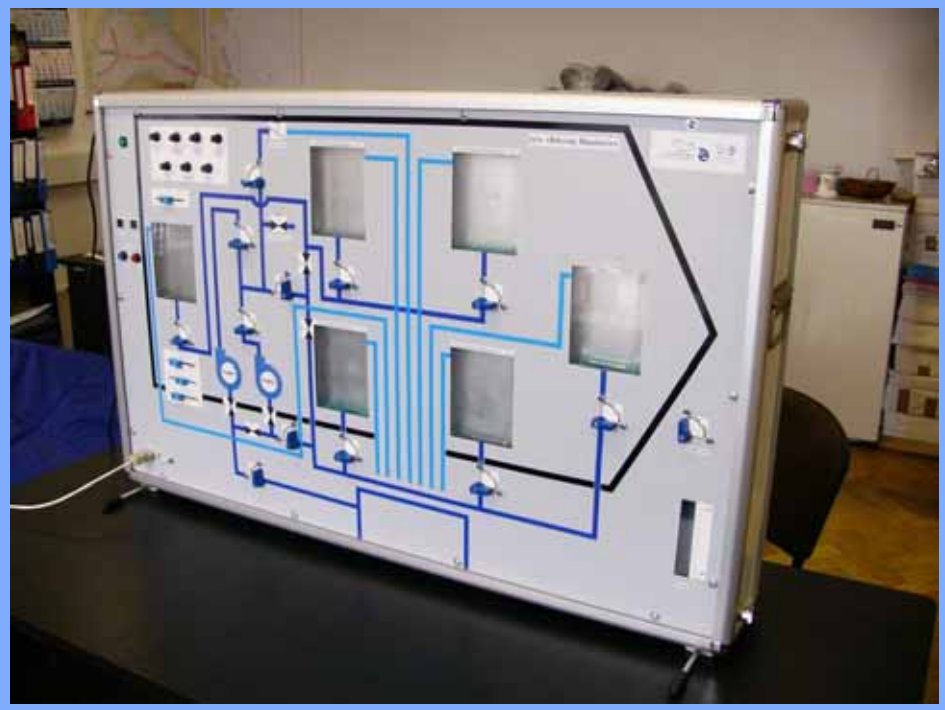
Structure of Ballast Water Electronic Monitoring System

Ballast Water Exchange Electronic Monitoring System

'BWEEMS'

BWEEMS table-top simulator consists of:

- Real table-top imitator of ship's ballast system
- Real pressure sensors in tanks
- Imitators of other sensors (with actual parameters)
- GPS connection available
- Simulator-PC data transmission system
- Valves and switches positions' indication



Information calculated by controller:

- Total quantity of BW
- Tanks with ballast
- Tanks exchanged
- Tanks not exchanged
- Percentage exchanged
- Total BW volume
- Metacentric height
- Dangerous list
- Inadmissible trim
- Fast list increasing
- Dangerous vibration
- Dangerous pressure

Advantages of simulator:

- Proper training of ships' personal according to IMO requirements before joining the ship.
- Objective methods of teaching process registration.
- Possibility of making presentations/classes for 30-40 people.
- World wide transportation of unit.
- Long time keeping of records.
- Play-back of recorded files at any time in fast mode.
- Choosing the most convenient format for record keeping.
- Data presentation in graphic format.
- Connection to any PC.
- Printing-out tests' results.
- Easy to use.

Regional Cooperation and Replication

The 1st Black Sea Conference on Ballast Water Control and Management was held in Odessa on 10-12 October 2001

Representatives of Black Sea maritime administrations, regional ecological and shipping organizations participated

IMO Secretary General Mr. W. O`Neil opened the Conference and finalised its conclusions



Regional Cooperation and Replication



Regional Action Plan was adopted; basic principles of cooperation and perspective tasks planned



2nd Black Sea Conference held in Constatsa, January 28-30, 2004.

Biological Port Baseline Survey Seminars - Turkey

- Istanbul, Turkey, 25-27 May, 2004





Biological Port Baseline Survey Seminars - Georgia

- Tbilisi and Batumi, Georgia, 19-22 July, 2004





Ukraine / Black Sea results 2001-2004

1. Ukraine implemented IMO A.868 Guidelines and BWM Convention is on the agenda of National Parliament for ratification
2. Regional Action Plan adopted on two conferences
3. Awareness rising in the Black Sea countries
4. Biological survey methodology spread in Turkey, Georgia and Russian Federation

Black Sea Region: options for discussion

1. Database on introduced aquatic organisms of the Black and Azov Seas?
2. Regional / national Concept for the implementation of the IMO BW Convention for Black Sea region / states?
3. Regional Training on BW TRAIN-X methodology?
4. Regional BW Risk Assessment?

Contacts

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