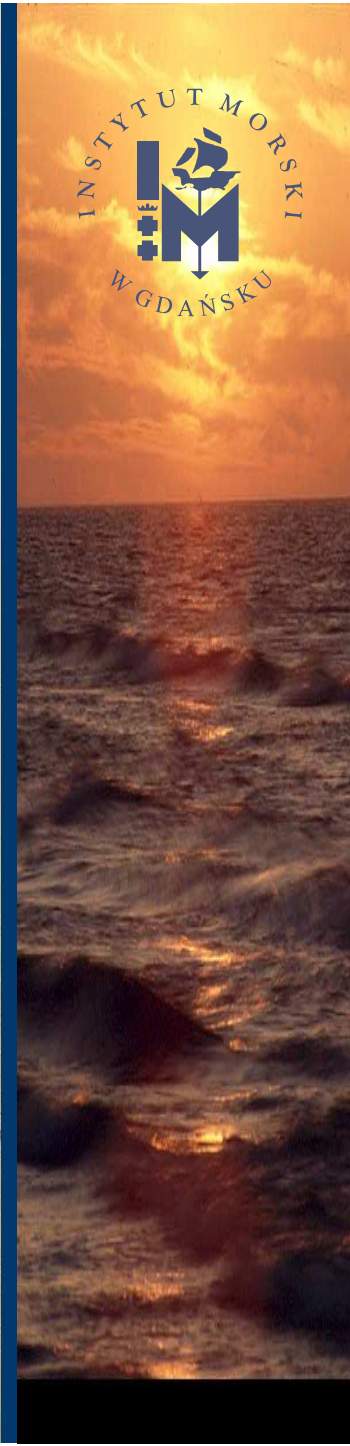


Maritime Institute in Gdańsk, POLAND
Department of Operational Oceanography



MULTI-PURPOSE SURVEY
AND ROV SUPPORT
VESSEL

IMOR



MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



The IMOR was built as a multi-role shallow water survey and ROV support twin hulls vessel (dedicated for area almost from beach to 200 Nm offshore).

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



She is configured and capable of performing a range of tasks, such as: hydrographic and geophysical operations, bottom and pipeline inspection, and others.

Investigations and research services for the needs of economy

At present, the following complex and highly specialised investigations and research services are carried out by the Maritime Institute with the use of r/v IMOR:

- pre-investment and investment support investigations for wind farms, cable and pipeline laying, sanitary collectors and artificial reefs,
- inventorying of marine mineral resources, measurements of pollution and volume of dredged spoil,
- investigations and services providing information for designing, modernising and building maritime structures, quays and marinas,
- investigations related with the improvement of safety of navigation and contingency actions (predictions of oil and chemical spill propagation),
- investigations concerning the impact of economy on marine environment and biocenosis,
- investigations supporting the development of maritime spatial plans and for the needs of integrated coastal management,

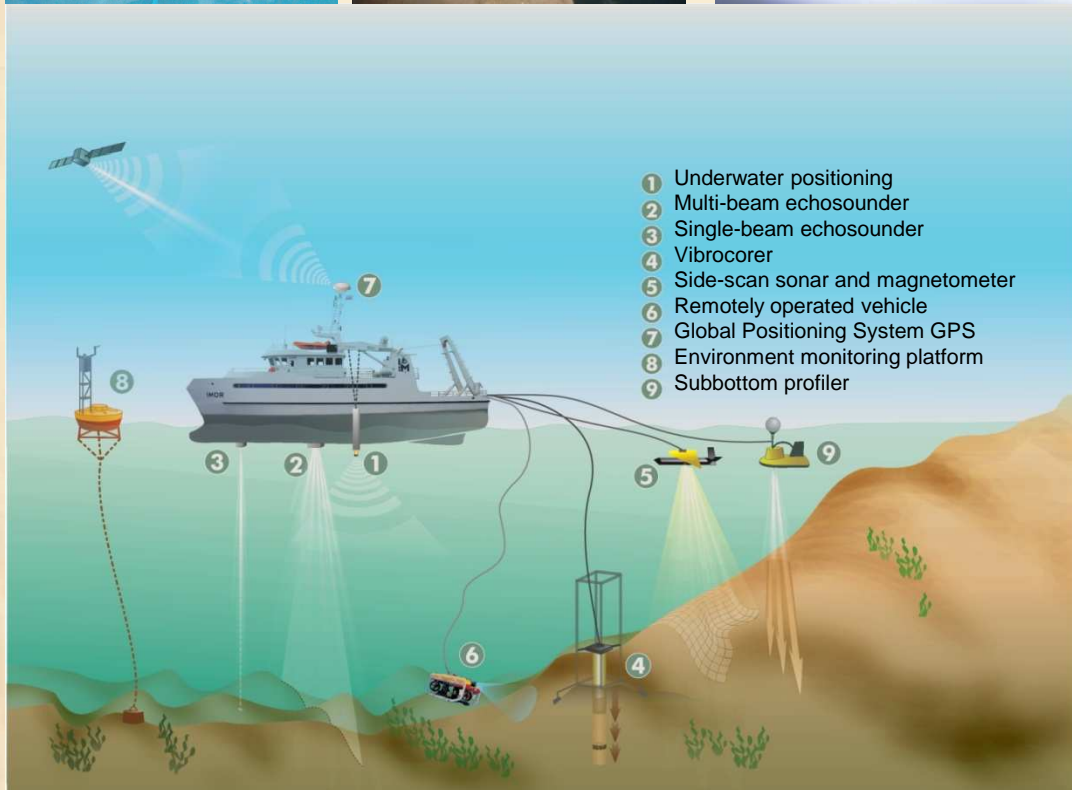
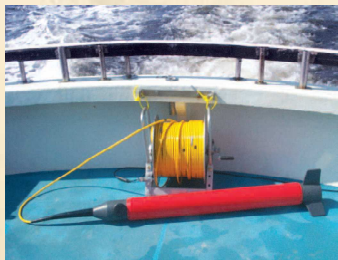
Investigations and research services for the needs of economy

The investigations and research services are realised basing on contracts with a wide range of Polish and foreign enterprises: from the maritime sector (port industry, shipbuilding, port-related business), energy and telecommunications, mining and sea bottom exploration, design, consulting, construction and other companies realising their activities in the coastal zone.

It is also planned to:

- improve capacities for monitoring of biotic and abiotic parameters of marine environment, especially through developing network towers,
- improve techniques and develop a fleet of autonomous submersibles with the objective of filling the gap in programs of water sample acquisition in areas of algal blooming or in areas contaminated by hydrocarbons,
- develop capacities for short- and medium term forecasts of meteorological and oceanographic phenomena, taking into account biological parameters (such as e.g., spreading and drift of algal blooms).

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



Survey tools of r/v IMOR

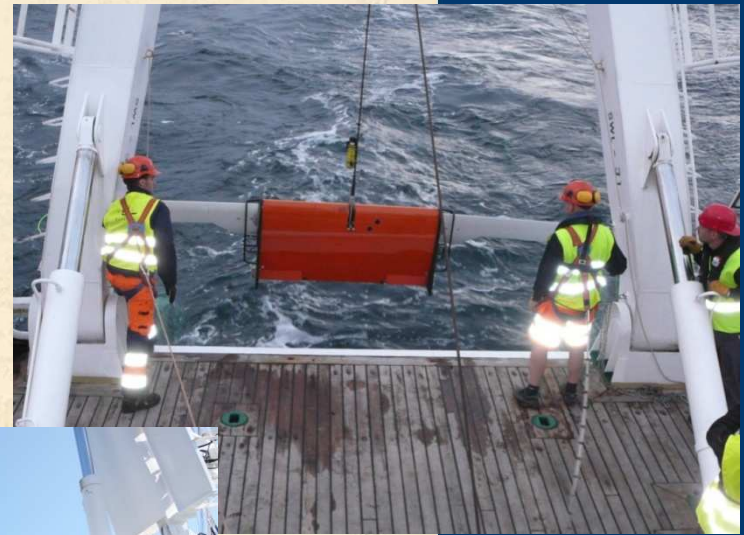
Interesujące jest nie tylko badanie, ale i jego opis.

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



The vessel is easily re-configured accordingly to requirements and adaptable solution to clients' varying demands in all subsea surveys

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



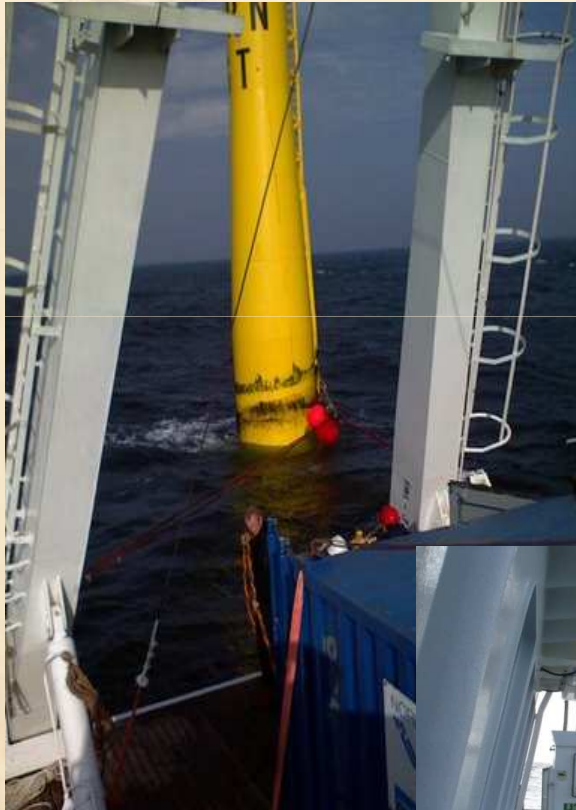
The IMOR offers extremely cost efficient and flexible solution for many subsea tasks, and also offers the highest standards of safety and technologically advanced systems.



MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



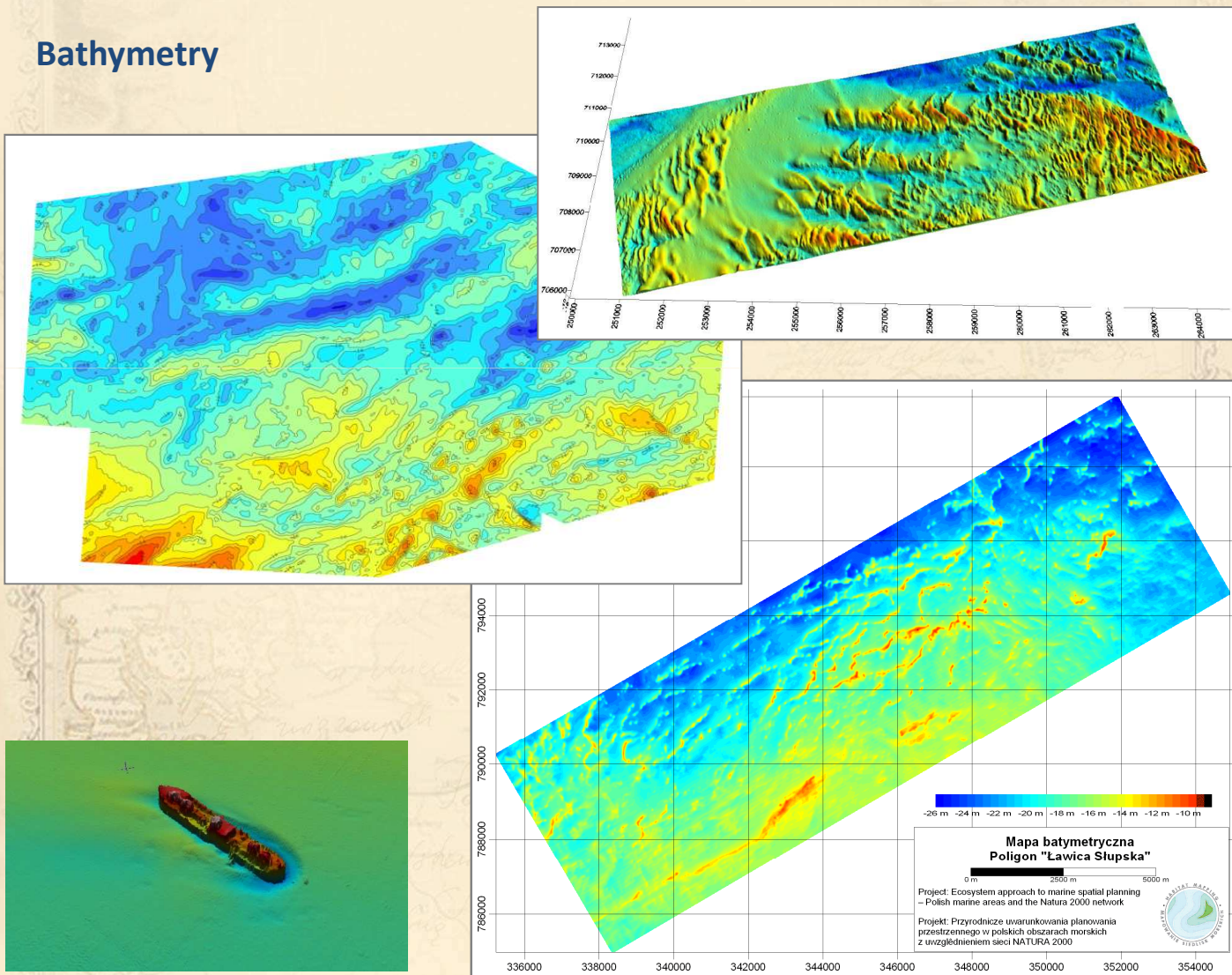
We offer professional analysis and assessment of the measured data sets; we can also carry out different feasibility studies and pre-investment projects (concerning underwater cables, pipelines, wind farms, oil rigs, piers).



*u, myślnic' lachy,
aua forecarni,
minterew' roh n' wierbolug
aparebus.*

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR

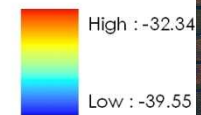
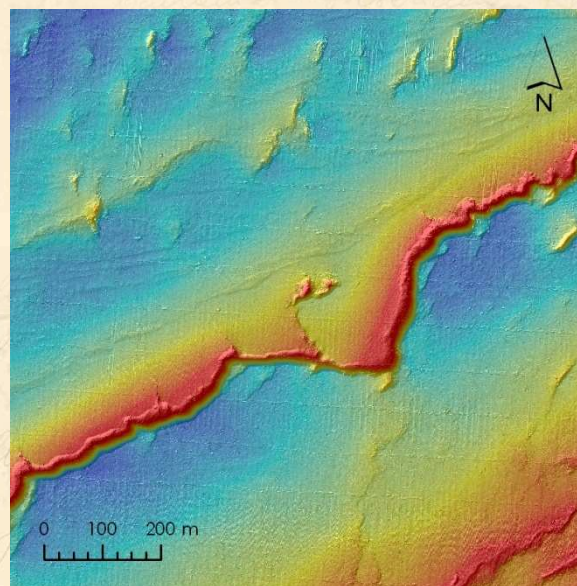
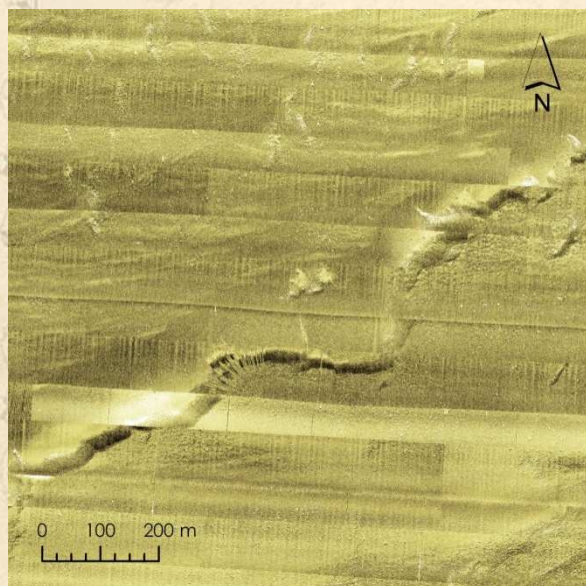
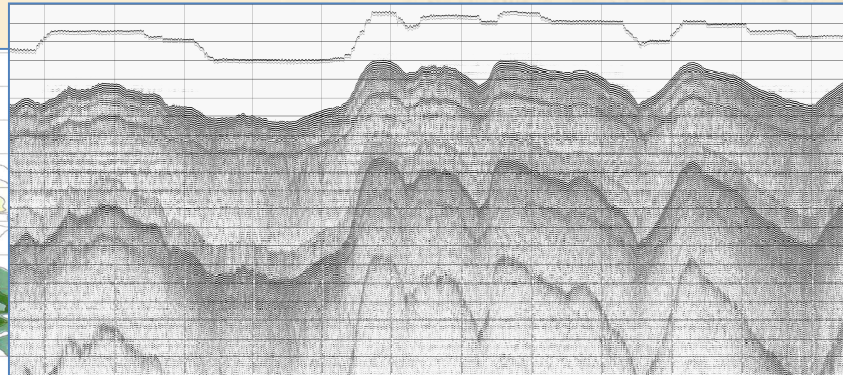
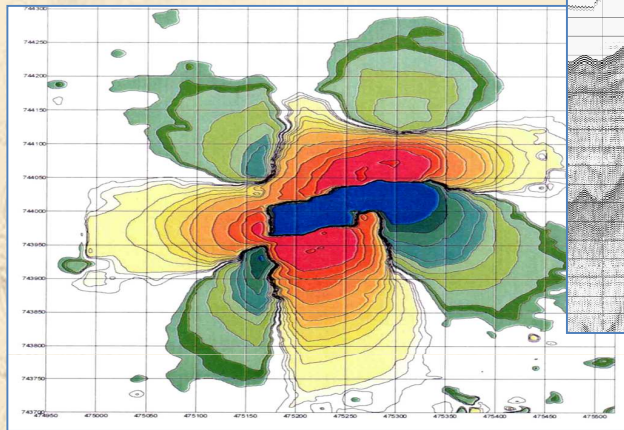
Bathymetry



MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL

IMOR

Geophysical survey



MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR

Geology
Geotechnical engineering



Vibrocorer VK 3/6



CPT

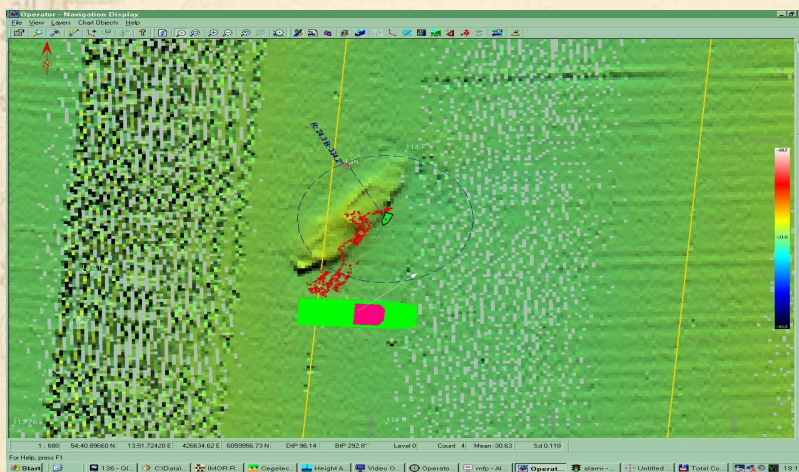


Boxcorer

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



Cultural heritage protection



Wiek w okolicy Władysławowa



Wiek datowany z XVI-XVII w.



Wiek datowany z XVI-XVII w.



Wiek w okolicy Hału



Wiek w okolicy Hału



Wiek w okolicy Białej



Wiek w okolicy Władysławowa



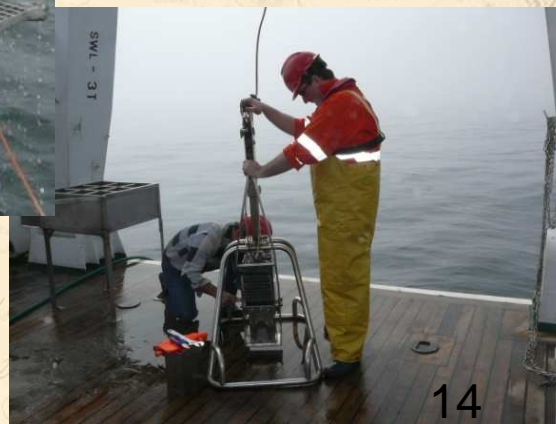
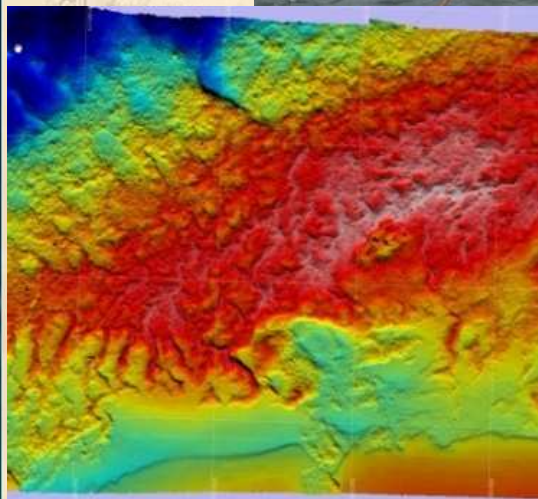
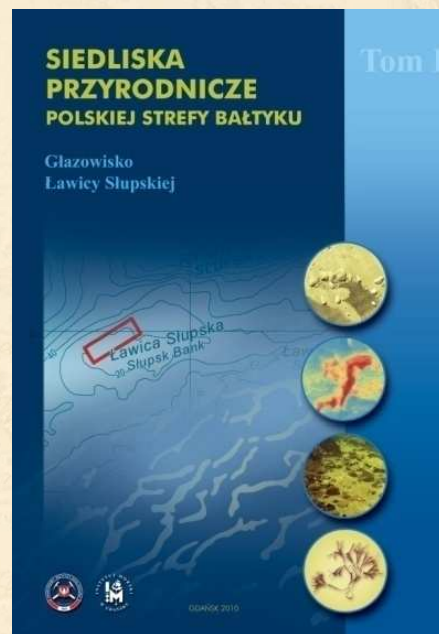
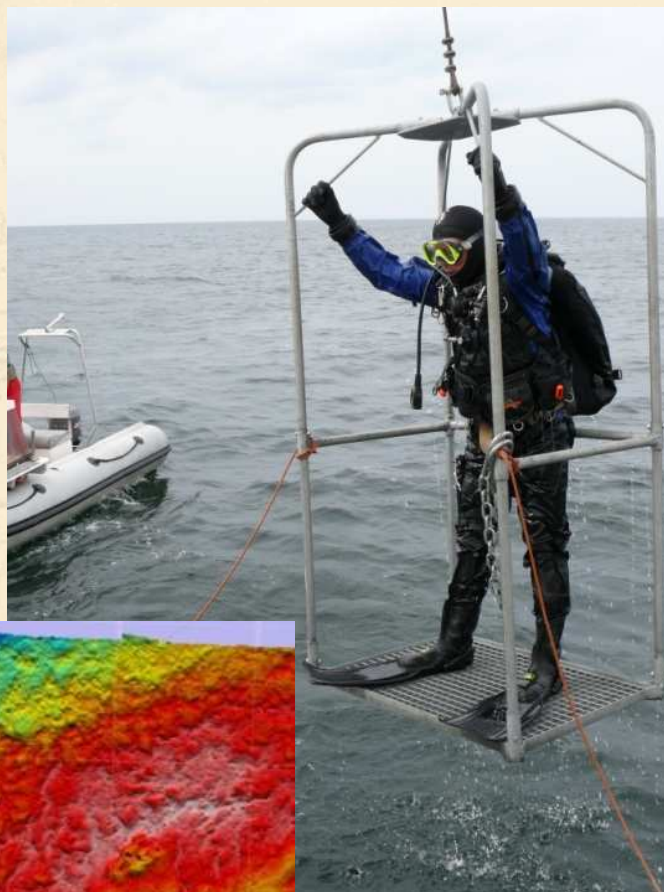
Teleskopy i lunetki (jednostki wojska ziemianinów z XIX-XVII w.)



MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL

IMOR

Habitat mapping



MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



The vessel's features include:



120 kN/10m jig crane and 30 kN A-frame (aft),
cable winch 40 kN,

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



The vessel's features include:



Moon pool for MBES Reson 8125



DP – System class 1

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR

The vessel's features include:



8 single and 4 double man cabins,
mess room, galley placed in deckhouse
(all fully
air-conditioned).

Additionally, stores / general use compartments in both hulls.

MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



The vessel's features include:



She is equipped with diesel-electric propulsion system consisting of:

- 1 Volvo - Penta 415 kVA generator set,
- 1 Volvo - Penta 401 kVA generator set,
- 1 Volvo - Penta 180 kVA generator set.

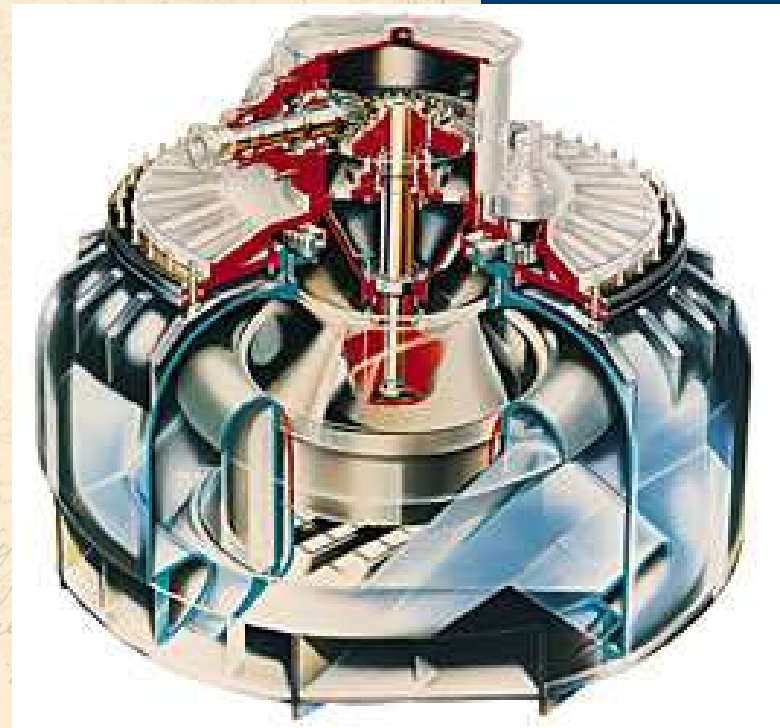
MULTI-PURPOSE SURVEY AND ROV SUPPORT VESSEL IMOR



The vessel's features include:

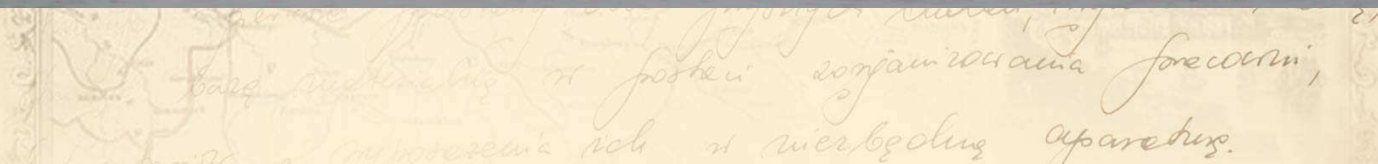
Thrusters:

- 2 dual azipod aft active rudder - propellers
SCHOTTEL - STP 200 unit 2x300kW,
 - 2 waterjet bow thrusters type
SCHOTTEL - SPJ 22 unit 2x75 kW.
- Schottel's units are powered by electric motors (3 x 400 V 50 Hz) controlled from helmsman stand and DP Class 1 system.

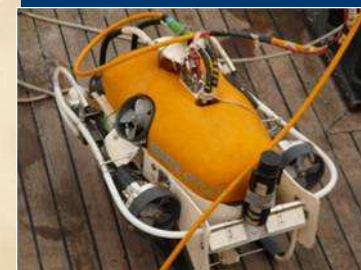
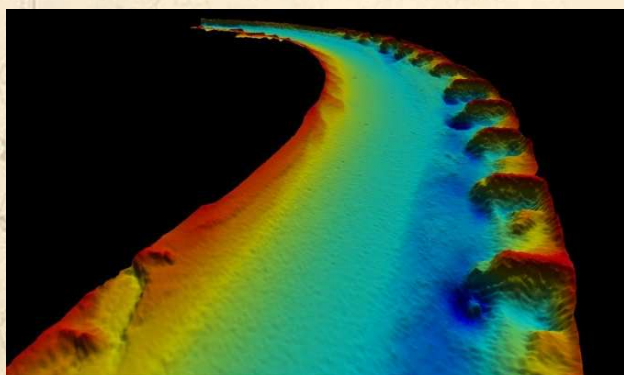
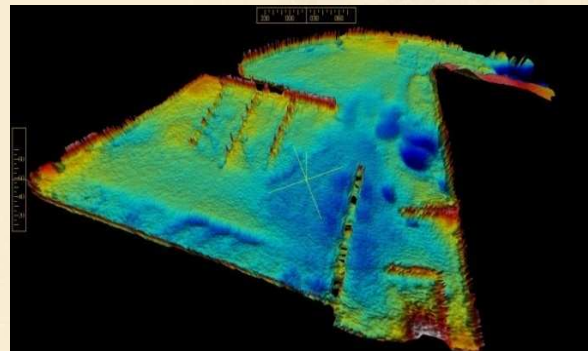


... niebezpieczny aparat.

Part of floating laboratory IMOR
Middle size survey motorboat
IMOROS 2



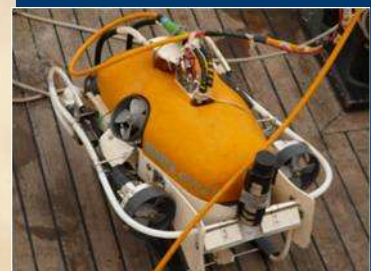
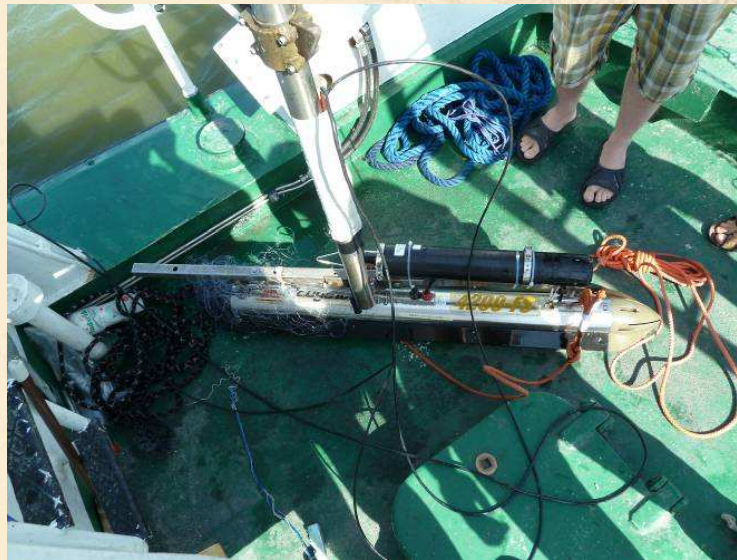
Part of floating laboratory IMOR Middle size survey motorboat IMOROS 2



IMOROS 2
during survey work, Rhine River (Germany) and Władysławowo Harbour,

*...trzy kulei, myślicieście, leczę,
...niebezpieczny aparat.*

Part of floating laboratory IMOR
Middle size survey motorboat
IMOROS 2



IMOROS 2
Scan Side Sonar survey (EdgeTech 4200), Vistula Lagoon

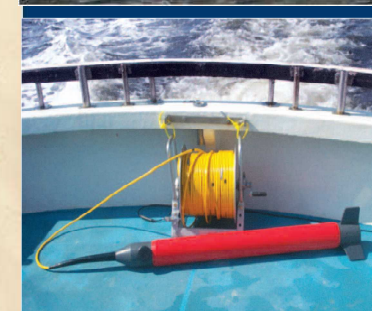
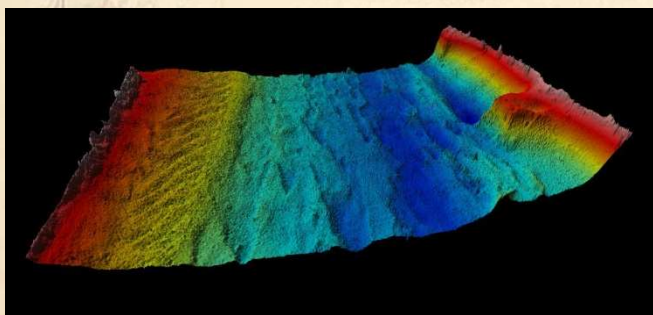
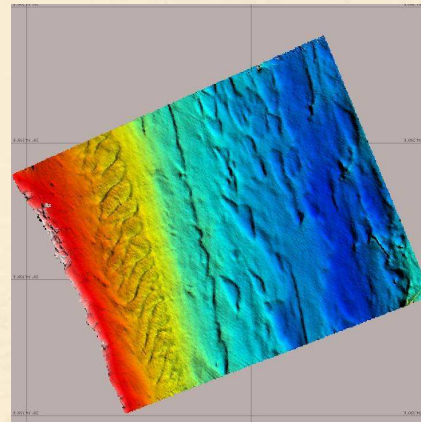
*...placówek flety i portów morskich
Polski zachwył i trędził. Treba było
...morski i krolei, myślicie liście,
...i postaći zompamitana forecarni,
...i wierzęcnie noli i wierzęcnie aparaty.*

Part of floating laboratory IMOR
2 Small survey boats
IMOS ŁM 4 (ŁM2)



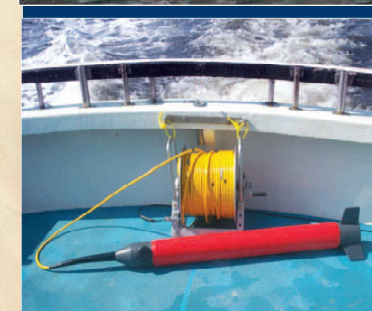
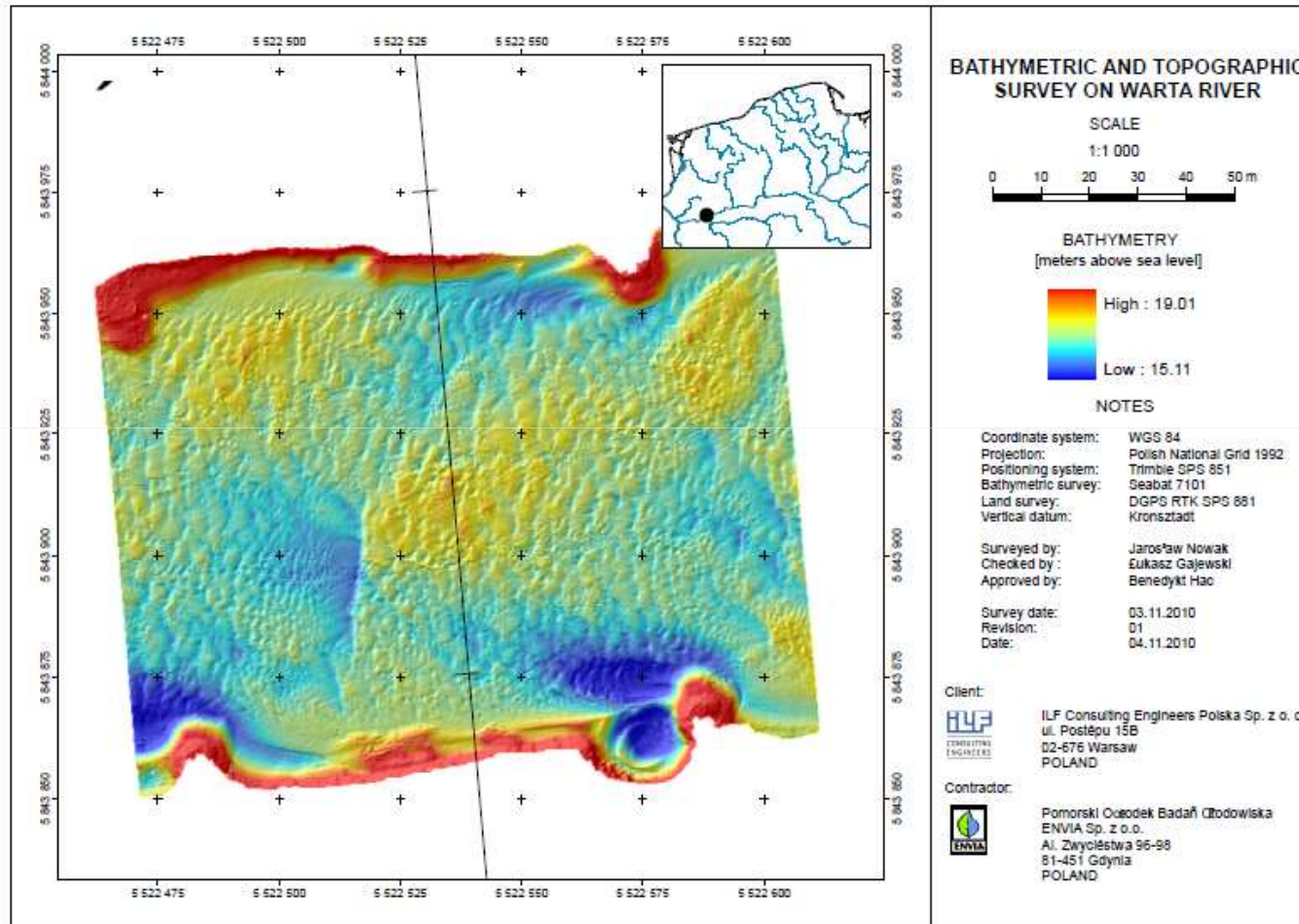
IMOS ŁM 4
During MBES survey work, Baltic Sea (near shore zone – landfall)

Part of floating laboratory IMOR
2 Small survey boats
IMOS ŁM 4 (ŁM2)



IMOS ŁM 4
During MBES survey work, Vistula River
(Poland)

Part of floating laboratory IMOR 2 Small survey boats IMOS ŁM 4 (ŁM2)



**Example of final chart made for crude oil pipe –
crossing Warta River (Poland)**



Thank you for attention

Kazimierz.Szeffler@im.gda.pl