

NATIONAL INSTITUTE OF MARINE GEOLOGY AND GEOECOLOGY - GEOECOMAR -

23 - 25 Dimitrie Onciul Street, 024053 Bucharest, ROMANIA www.geoecomar.ro

Romania - National update RIV MARE NIGRUM RIV ISTROS Copenhagen - Denmark, 2009

Codes implementation

R/V Mare Nigrum: ISM Code Certificate no. 000024 / February 2006 R/V Mare Nigrum. ISPS Code Certificate no. 00040 / May 2009

ROMÂNIA

Ministry of Transports, Constructions and Tourism

Distinctive number or letters



Ministerul Transporturilor, Construcțiilor și Turismului

SAFETY MANAGEMENT CERTIFICATE

CERTIFICAT DE MANAGEMENT AL SIGURANTEI

Certificate No. 1 Certificat Nr. 000053

Issued under the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended, under the authority of the Government of Romania by Ministry of Transports. Constructions and Tourism, through Romanian Naval Authority, Construcțiilor și Turismului, prin Autoritatea Navală Ron Name of ship MARE NIGRUM

Port of registry CONSTANTA Type of ship OTHER CARGO SHIP Gross tonnage 2495 Tonajul brus IMO Number 7119408 Name and address of Company Institutul National de Cercetare-Dezvoltare pentru Geologie si Geoecologie Marină - GeoEcoMar Numărul unic de identificare a Companiei: Str. Dimitrie Onciul, Nr. 23-25, București, ROMANIA

This is to certify that the safety management system of the ship has been audited and that it complies ertifică prin prezenta că sis with the requirements of the International Management Code for the Safe Operation of Ships and for cerimelor Codului international de management pentru operarea in siguranță a navelor și pentru Pollution Prevention (ISM Code), following verification that the Document of Compliance for the

Company is applicable to this type of ship.

This Safety Management Certificate is valid until

subject to periodical verification and the Document of Conformity remaining valid.

(place of issue of the Document

Date of issue 10 JULY 2006

ROMANIAN NAVAL AUTHORITY AUTORITATEA NAUALÁ ROMÁNÁ

(Signature of the duly authorized official issuing the d

Autoritatea

Română

(Seal or stamp of issued authority, as appropriate) (Sigilial sau stampila autorității emitente, după caz)

ROMÂNIA



CERTIFICAT INTERNATIONAL DE SECURITATE A NAVEI

INTERNATIONAL SHIP SECURITY CERTIFICATE Certificat nr. / Certificate no. 00040

CODULUI INTERNATIONAL PENTRU SECURITATEA NAVELOR

INTERNATIONAL CODE FOR THE SECURITY OF SHIPS ŞI A FACILITĂȚILOR PORTUARE (CODUL ISPS)

AND OF PORT FACILITIES (ISPS CODE) Sub autoritatea Guvernului Under the authority of the Government of (Numele Statului / Name of State)

ROMANIAN NAVAL AUTHORITY de către

Name of ship Numär sau litere distinctive : Distinctive number or letters CONSTANTA

Portul de inmatriculare :

Tonaiul brut

Nume e și adresa Companiei : IRSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE
Name and address of the Company: PENTRU GEOLOGIE SI GEOECOLOGIE MARINA - GEOECOMAR
Numânul unic de identificare a Companiei: St. Dimitrie Onciul, Nr. 23-35, BUCUREȘTI, ROMÂNIA Unique Company Identification Number

OTHER CARGO SHIP

This is to certify Prezental atests: This is to certify:

This is to certify:

Ca sistemul de securitate a navel ordice echipament asociat de securitate a tost verificat in conformitate that the security pystem and any associated security equipment of the ship has been verified in accordance cut sectionea 19.1 din partea A a Codukul ISPS;

with section 19.1 of part A of the ISPS Code;

sith section 19 1 of part A of the ISPS Code.

2 cà verificaria a natified à site mid de securitate a navel și orice echipament asociat de securitate a navel intelli the verification showed that the security system and any associated security exponent of the ship earls dis hostipe purched let vereire astification și cha van Indeplinație in certifiela splicatată dis capitolul XI-2 al Convenite și sidin partie astification și care authit în application requirements of the chapter XI-2 al Convenite și sidin partie A a Codulul ISPS - authit în application requirements of the chapter XI-2 al Convenite și sidin partie a SISPS Code - 3 că nava este prevăzută cu un Plan de Securitate la Navel aprobat. Intelligia pouvided with an approved Sipp Security Plan.

Data verificării inițiale i de relaniorie pic care este bazat acest certificat 07/05/2009 Cater of Intelli 7 removul verification on which this certificate is based.

Acest Certificat este valabil pănă la 07/05/2014 supus verificărilor în conformitate
This Certificate is valid until subject to verifications in accordance

CONSTANTA Issued at (locul emiterii Certificatului / place of issue of the Certificate 08/05/2009

(semnătura persoanel oficiale complet autorizate care a emis Certificatul) (signature of the duly authorized official issuing the Certificate)

(Sigillul sau ştampila autorității emitente, după caz) (Seal or stamp of issuing authority, as appropriate)

GEOECOMAR – certification for scientific activities (including the scientific activities on-board of the own research vessels):

> ISO 9001: 2008 **SR EN ISO 9001: 2008**

(Certificate no. 170539/April 2006, from Lloyd's Register Quality Assurance)





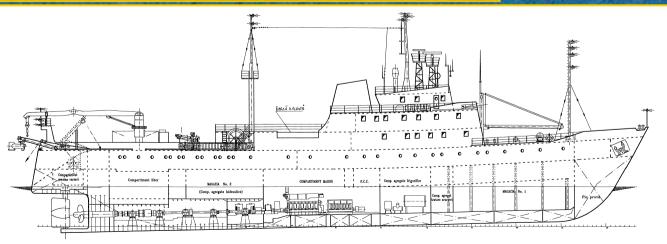
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Vessels and Facilities

- Research Vessel Mare Nigrum



Owner: GEOECOMAR, Romania

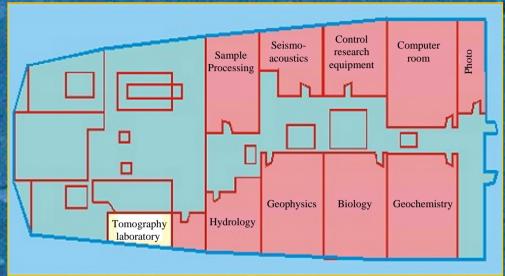


Vertical section showing the internal distribution of the technical and scientific areas

- Laboratories on - board







- √Wet lab
- **✓** Hydrology
- **√** Geophysics
- **√**Biology
- **√**Geochemistry
- **✓** Computer room
- ✓ Seismo-acoustics
- **√**Tomography
- **√Photo**

- R/V Istros - The main component of the fluvial infrastructure





Dimensions:

Length – 32 m

Breadth - 6.92 m

Height – 1.65 m

Displacement – 171 t

Crew - 7

Scientific crew - 10



Multibeam Bathymetric System SEABEAM 1050 ELAC – Nautik (180 KHz) DGPS OMNISTAR HP GPS Trimble R3 CEEDUCER PRO – Digital Hydrographic Survey System



Summary and highlights of 2008 Programmes

A. Scientific activities of R/V Mare Nigrum in 2008

- April, September: UE FP 6 SESAME Project "Southern European Seas: Assessing and Modeling Ecosystem changes"
- April: PN06270101 project (FLUDITMAR national core programme) "Complex studies (bathymetrical, geochemical, geochemical, eco-toxicological) of the Romanian marine area with a view to the knowledge of the geological evolution induced by geotectonic events, global climate and sea level changes"
- April PN06270102 project (FLUDITMAR national core programme) "Realization of maps (1:25000, 1:50000) and other cartographic documents (geological, geophysical and geoecological) for the Black Sea through the use of competitive techniques of investigations for correlations at basin, regional and Juropean scale"
- May: STABACUM project (National programme CEEX MENER) "Stability of the continental slope of the Black Sea in the area of gas hydrate accumulations Romanian sector"
- June: PN06270201 (FLUDITMAR national core programme) "Complex geological and geophysical researches for new mineral and energetic resources in the Romanian sector of the Black Sea"
- August PN II 364/2007 project (2nd National Programme)— "Black Sea: evolution of the calcareous nanoplankton in the last 7.000 years. Paleoambiental and paleogeographycal reconstructions"
- September, October, November: Geological and geophysical researches for new mineral and energetic resources in the Black Sea"

- UE FP 6 CONSCIENCE project "Concepts and science for coastal erosion management"
- PN06270103 (FLUDITMAR National Core Programme)- "Danube Delta –interdisciplinary studies and detailed cartographic documentation (maps and/or geological, geophysical, geoecological profiles), in order to assess the environmental state and the evolution tendencies under anthropogenic pressures, sea-level and climatologic changes"
- PN06270104 (project under FLUDITMAR National Core Programme) "Complex analyses of water, sediments and pollutants fluxes in the Romanian sector of the Danube, Danube tributaries and navigable channels (Danube-Bucharest, Danube-Black Sea, Sulina) in order to assess the environmental impact and the significant mineral resources and prepare general and detailed cartographic materials"
- S.C. TRAPEC S.A. INTERGIS GRUP S.R.L –"Technical assistance for improvement of navigation conditions in the Romanian-Bulgarian sector of the Danube"
- PN06270303 (FLUDITMAR National core programme) "Technical assistance to governmental bodies and local administrations for integrated management and proposal of national and local measures. Elaboration of hydrological operational models for the Danube, Danube Delta and the Black Sea coast."
- CLIMARISC project (2nd National Programme) "Application and development of new methods for investigation and dating of major climate and sea level changes from the Danube Delta and the Black Sea for reconstruction of their evolution and forecast of associated risks".

Days at sea - 2008

R/V *Mare Nigrum* 118 days

R/V Istros 190 days









New Acquisitions of GEOECOMAR in 2009

ELECTRIC WINCH FOR "MARE NIGRUM", RESEARCH VESSEL

Electric HYDROGRAPH winch, model HW-500EL.

Dimensional sketch RH208415

Version Left hand winch to be supplied.
 Drum dimensions Dia. 324mm./dia.990 mm.x 905mm.

Lebus groove 12,0 mm wire

Storage capacity
 3000 m of ø 12,0 mm wire at OD=903 mm

(3000 mtr. 12,00 mm Stainless steel wire Included and spooled by Rapp Hydema on

the winch)

Level wind synchronised for
 Position of wire entrance
 for 12,0 mm wire.
 over or wound.

Maximum fleet angel

Level wind synchronizing
 PLC controlled, angle sensors on guiding gear

and/or electronic synchronizing.

Slip ring Not applicable.

Brake type Hydraulic actuated, spring operated band

brake with manual adjustment.

Brake control system (BS) (APER) Automatic parking brake with electric

release during operation.

Weight approximately
 1200 kg. per. unit, ex. wire.

1 ea. Planetary/in line gear box Ratio 40:1

1 ea. RHEMO848-m Electrical motor 48 Kw.

1 ea. 001110 Control system

Type Electric system
 Frequency motor control system

Main Control (MC) (ERL) control of haul in/pay is local controlled

from the winch and control room.

Speed control continually frequency speed control

(stooples speed and dual retation)

(steeples speed and dual rotation)
Tension Control (TC) (ER) Tension control to be remote

controlled from the panel in the control room.

Readout Tension and length readout in control room

and laboratory.

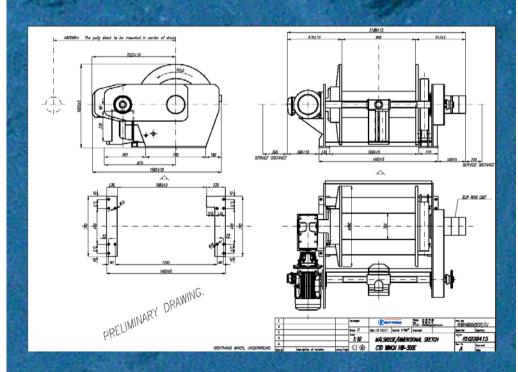
Winch performance as described in table below is related to:

Power requirement from switchboard:

58 Kw

TECHNICAL SPECIFICATION

Wire layer	Dia (mm)	Speed/Pull			
First layer	332	7,1	t/	50	m/min
Half length	620	3,6	t/	93	m/min
Top layer	796	2,7	t/	120	m/min



I.1 Activities of R/V Mare Nigrum in 2009

- March 2009, training and testing on the sea ROV VECTOR M 5.
- May 2009, PN 09410101 Geo-ecological Monitoring of Romanian Continental shelf.
- June July 2009, Complex geological and geophysical researches for new mineral and energetic resources in the Romanian sector of the Black Sea" -1st part
- August September 2009, Complex geological and geophysical researches for new mineral and energetic resources in the Romanian sector of the Black Sea" -2end part

II.1 Activities R/V ISTROS in 2009

- May, August, September 2009, PN09-41-03-04 (project under GEOSIDMAR National Core Programme) Geo-ecological research to evaluate the influence natural and anthropogenic factors on sediment distribution, water quality and greenhouse gas emissions in the Danube Delta and Razim –Sinoe lagoon complex".
- July, August 2009, PN09-41-01-01 (project under GEOSIDMAR National Core Programme) Geo-ecological monitoring on the Romanian continental shelf.

THANK YOU FOR YOUR ATTENTION

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