



AQUATICA CIVIL ENGINEERING CONSULTING MARINA DESIGN EXPERIENCE



MARINA PROJECTS

AQUATICA INGENIERIA is an engineering company specialized in MARINA DESIGN and CONSTRUCTION. Starting with alternatives study, conceptual designs and basic projects up to the construction drawings and all calculation related to a complete project, even the construction management. Also the preparation of feasibility studies and business plans .

With more than 100 references in marina design, the Company has worked in several countries world wide.

FERNANDO LOPEZ MERA , PHD in CIVIL ENGINEERING AND PORTS, is the responsible person in the team, has more than 15 years of experience in maritime engineering and marina design.



Aquática provides a range of services of CIVIL ENGINEERING, ARCHITECTURE, PLANNING TOWN, URBAN PROJECTS AND FINANCIAL CONSULTING. Aquática specialization stands out in maritime, coastal and hydraulic engineering.

GENERAL SERVICES

Architecture
Civil works projects.
Roads, equipment and instalations design.
Planning Town
Urban Projects
Technical assistance and works direction.



SERVICES OF SPECIALIZING ENGINEERING: MARITIME AND MARINES

- • Analysis of maritime dynamics
Analysis of maritime dynamics.
Wave propagation.
Studies of Agitation for Short and Long Wave.
- • Analysis of Coastal and River dynamics
Integral analysis of Coastal Sections.
Integral analysis of River sections.
- • Projects of Ports, harbors and Coastal Engineering
Marinas.
Maritime works.

→ FINANCIAL SERVICES

Feasibility Studies
Market Research
Marine Management

Actually, the company has a large experience in **MARINA DESIGN** from four points of view:

1. CONSTRUCTION PROJECTS AND CONSTRUCTION MANAGEMENT.

2. CONSTRUCTION TECHNICAL ASSISTANCE TO PONTOON MANUFACTURERS.

3. DESIGN AND CONSTRUCTION PROJECTS FOR PORT AUTHORITIES.

4. DESIGN PROJECTS AND PUBLIC TENDERS.

Aquática's head office in Vigo (Spain)



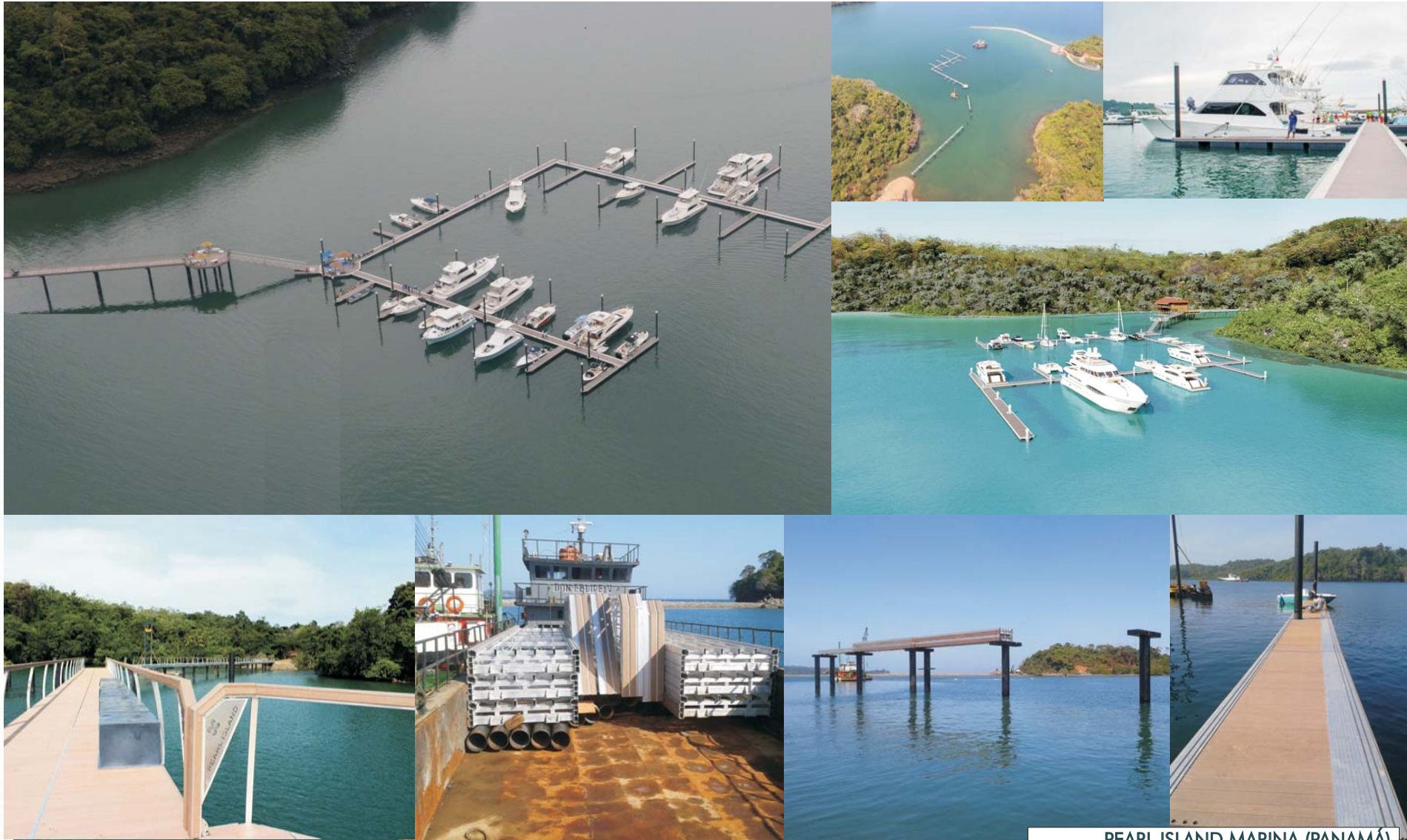
CONSTRUCTION PROJECT AND CONSTRUCTION MANAGEMENT

Nº	TITLE	LOCATION	CUSTOMER	ADMINISTRATION	DATE			T
						PD	AS	DP
	CONSTRUCTION PROJECTS AND CONSTRUCTION MANAGEMENT							
1	MARINA SAIDIA AND EXTENSION	MAROC	FADESA	AGENCE NATIONALE DES PORTS	2007			X
2	NEW FLOATING PONTOON IN HUELVA HARBOUR	HUELVA, SPAIN	AISTER	AUTHORITY PORT OF HUELVA	2008	X	X	X
3	MARINA IN CAMPOSANCOS, A GUARDA	GALICIA, SPAIN	CN PASAXE CAMPOSANCOS	PORTOS DE GALICIA	2007/09			
4	ANCHORAGE IN FORMENTERA	BALEARES ISLANDS, SPAIN	MAREXI	AUTHORITY PORT OF BALEARIS	2009			X
5	MARINA EXTENSION IN A POBRA	GALICIA, SPAIN	RONÁUTICA MARINAS	PORTOS DE GALICIA	2010			
6	MARINA IN ESCARABOTE, BOIRO	GALICIA, SPAIN	CLUB NÁUTICO BARRAÑA	PORTOS DE GALICIA	2010/11			X
7	MARINA IN CABO DE CRUZ, BOIRO	GALICIA, SPAIN	CLUB NÁUTICO BOIRO	PORTOS DE GALICIA	2010/11			X
8	MARINA IN SANXENXO	GALICIA, SPAIN	RCN SANXENXO	PORTOS DE GALICIA	2010/11	X		X
9	MARINA AMPLIATION IN MUROS	GALICIA, SPAIN	MUPORT	PORTOS DE GALICIA	2011	X		X
10	NEW MARINA OF NAUTICAL CLUB IN VIGO	GALICIA, SPAIN	RCN DE VIGO	PORT AUTHORITY OF VIGO	2011/12			X
11	MARINA IN CAMPECHE	CAMPECHE. MEXICO	CAMPECHE COUNTRY CLUB		2012/13			
12	PEARL ISLAND MARINA	PEDRO GONZALEZ ISLAND.PANAMA	ZONIRO		2013/14	X	X	X
13	NEW MARINA IN SANXENXO	GALICIA, SPAIN	RCN SANXENXO	PORTOS DE GALICIA	2012/14		X	X
14	FLOATING BREAKWATER IN XUFRE PORT	GALICIA, SPAIN	COPASA	PORTOS DE GALICIA	2013	X	X	X
15	VIGO MARINA EXTENSION	GALICIA, SPAIN	RCN VIGO	PORT AUTHORITY OF VIGO	2015			
16	MARINA CAMPECHE	CAMPECHE, MÉXICO	CAMPECHE COUNTRY CLUB	PORT AUTHORITY OF CAMPECHE	2016	X	X	X
17	MARINA IN A TOXA	GALICIA, SPAIN	CNIT	PORTOS DE GALICIA	2017	X	X	X

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CONSTRUCTION PROJECTS AND CONSTRUCTION MANAGEMENT



PEARL ISLAND MARINA (PANAMÁ)

CONSTRUCTION PROJECTS AND CONSTRUCTION MANAGEMENT

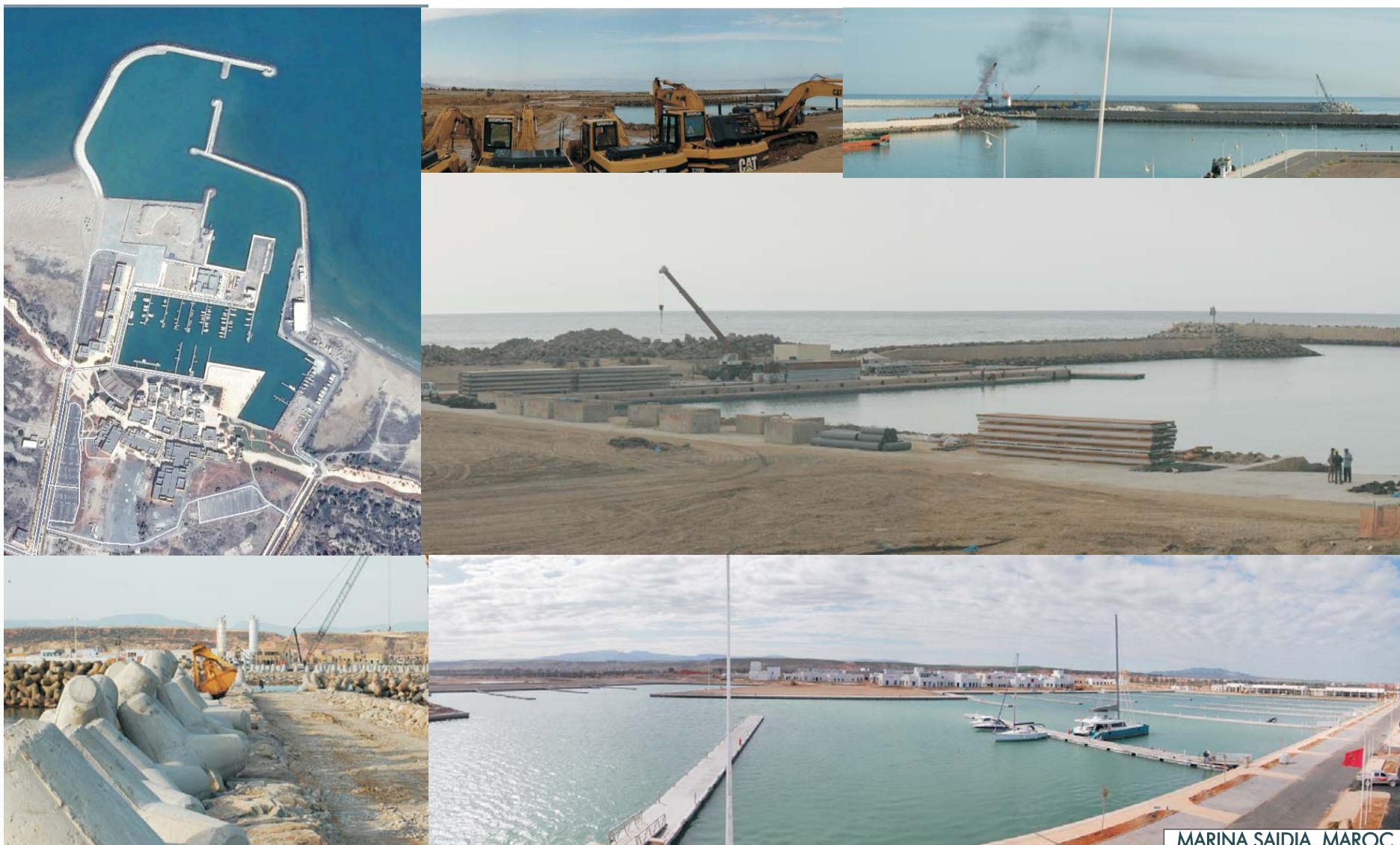


NEW MARINA IN VIGO. GALICIA. SPAIN

MARINA EXTENSION IN A POBRA DO CARAMIÑAL. GALICIA. SPAIN

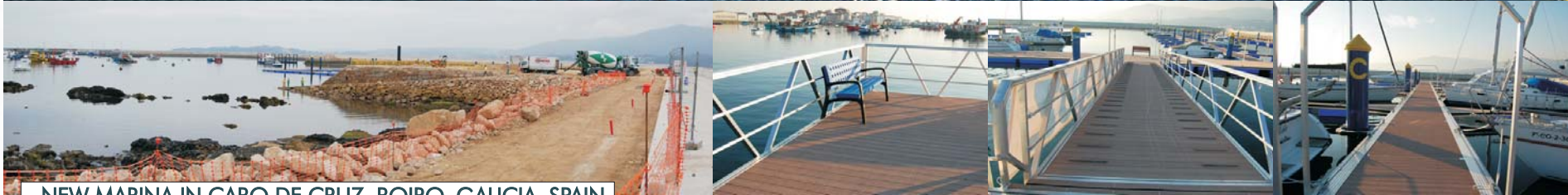


CONSTRUCTION PROJECTS AND CONSTRUCTION MANAGEMENT



MARINA SAIDIA. MAROC.

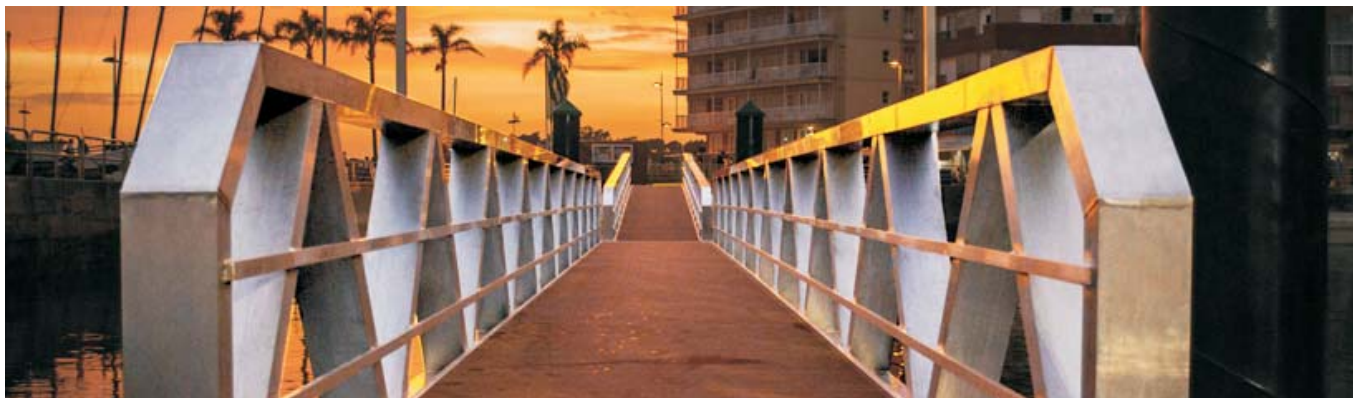
CONSTRUCTION PROJECTS AND CONSTRUCTION MANAGEMENT



NEW MARINA IN CABO DE CRUZ. BOIRO. GALICIA. SPAIN

NEW MARINA IN ESCARABOTE. BOIRO. GALICIA. SPAIN

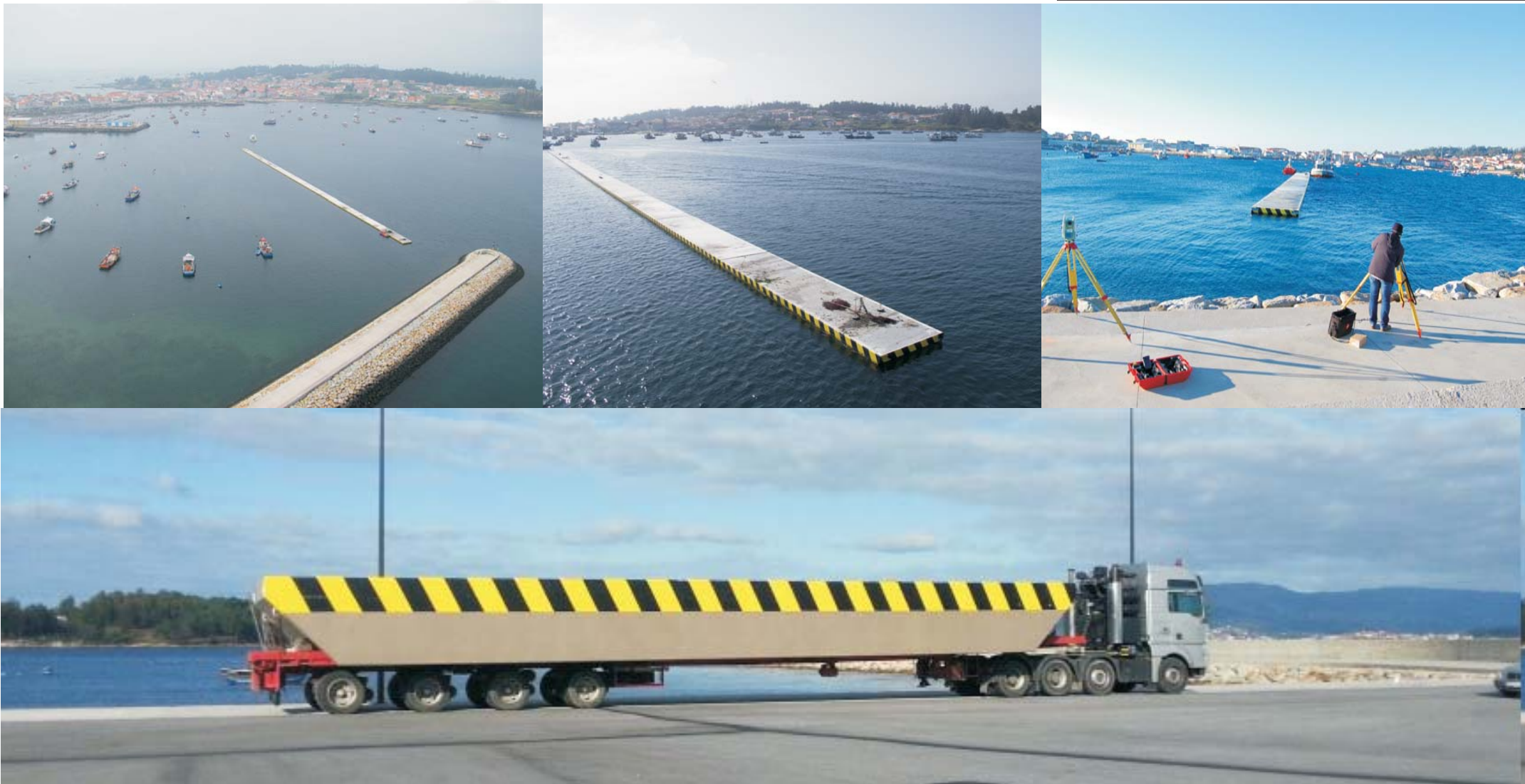




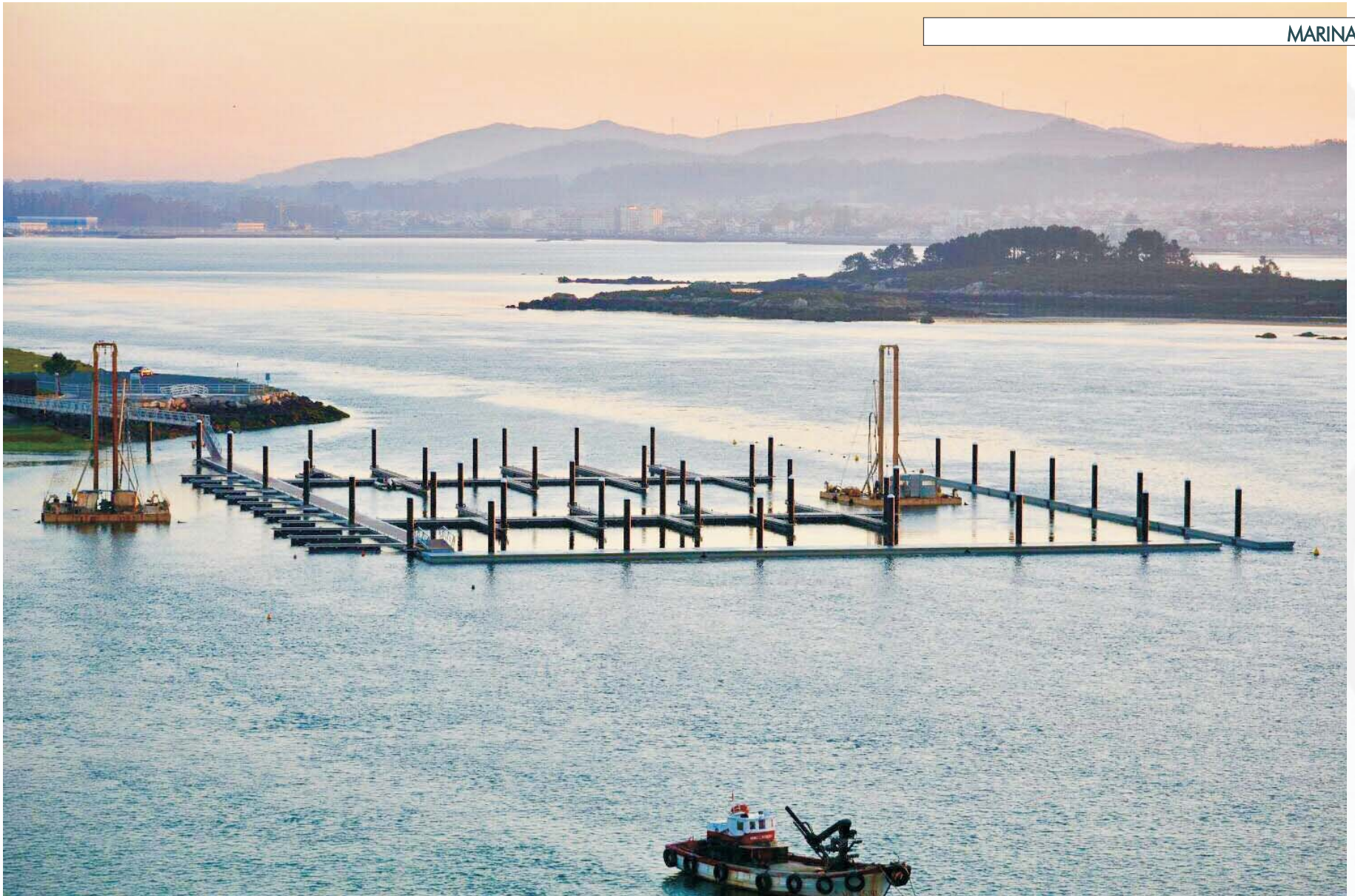
NEW MARINA IN SANXENXO. GALICIA. SPAIN



FLOATING BREAKWATER IN XUFRE'S PORT







CONSTRUCTION TECHNICAL ASSISTANCE TO PONTOON MANUFACTURERS

TECHNICAL ASSISTANCE TO PONTOONS MANUFACTURERS										
1	MARINA PREMIÁ	BARCELONA. SPAIN.	AISTER	2005						X
2	BAAYA- SILA (ABU DHABI)	EMIRATOS ARABES	AISTER	2005						X
3	EXTERIOR BASIN IN VALENCIA'S PORT	VALENCIA. SPAIN	AISTER	2006						X
4	RAS AL DARA (RAS AL KHAIMAH)	EMIRATOS ARABES	AISTER	2006						X
5	FLOATING AND FIXED PONTOONS DE LA CURRA PORT	CARTAGENA. SPAIN	AISTER	2006						X
6	MARINA PUNTA UMBRÍA	HUELVA. SPAIN	AISTER	2006						X
7	FLOATING PONTOONS IN CHIPIONA' S PORT	CADIZ.SPAIN	AISTER	2006						X
8	MARINA PONTA DELGADA	AZORES, PORTUGAL	AISTER	2007-2008						X
9	MARINA CASICA VERDE- GUILAS	MURCIA. SPAIN	AISTER	2008						X
10	FIXED PONTOONS IN LA LINEA DE LA CONCEPCIÓN	CÁDIZ. SPAIN	AISTER	2008						X
11	PONTOONS IN CASERÍA DE OSSIO	CÁDIZ. SPAIN	AISTER	2010						X
12	MARINA PORT DE MAO	BALEARIS ISLANDS. SPAIN	AISTER	2011						X
13	VALENCIA PORT MARINA	VALENCIA. SPAIN.	AISTER	2011						X
14	SEA WAVES BARRIER IN CABO DE CRUZ.	GALICIA. SPAIN	AISTER	2011	X				X	X
15	MUROS MARINA	MUROS	ALFER METAL	2010						X
16	FLOATING PONTOON IN ANDRATX	BALEARIS ISLANDS. SPAIN	RONAUTICA	2007						X
17	NEW ROSS MARINE- RIVER BARROW	IRELAND	RONAUTICA	2008						X
18	CALDERA'S PIER	COSTA RICA	RONAUTICA	2010						X
19	MARINA KARPAZ GATE	CHIPRE	RONAUTICA	2010						X
20	FLOATING PONTOONS IN TORUÑOS	CADIZ. SPAIN	RONAUTICA	2011						X
21	MARINA IN OLIVENZA RESERVOIR	BADAJOS. SPAIN	RONAUTICA	2011						X
22	FIXED AND FLOATING PONTOON IN PUNTA COCO	PANAMA	RONAUTICA MARINAS	2012					X	X
23	FIXED AND FLOATING PONTOON IN LA PALMA	PANAMA	RONAUTICA MARINAS	2012					X	X
24	MARINA VISTAMAR	PANAMA	RONAUTICA MARINAS	2014-2015						X
25	PILING IN FLAMENCO MARINA	PANAMA	RONAUTICA MARINAS	2015						X
26	MARINA CAMPECHE	MEXICO	RONAUTICA MARINAS	2015						X
27	LA PLAYITA MARINA	PANAMÁ	RONAUTICA MARINAS						X	
28	WALKWAY IN HENDAYA	PAIS VASCO. SPAIN	ASTILLEROS AMILIBIA	2013						X
29	NEW MARINA IN FERROL	GALICIA. SPAIN	ASTILLEROS AMILIBIA	2014						X
30	FIXED BARRIER IN LA GARRUCHA	CADIZ. SPAIN	ASTILLEROS AMILIBIA	2015						X

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CONSTRUCTION TECHNICAL ASSISTANCE TO PONTOON MANUFACTURERS

KARPAZ BAY MARINA. CYPRUS.



GARACHICO HARBOUR. CANARY ISLANDS. SPAIN

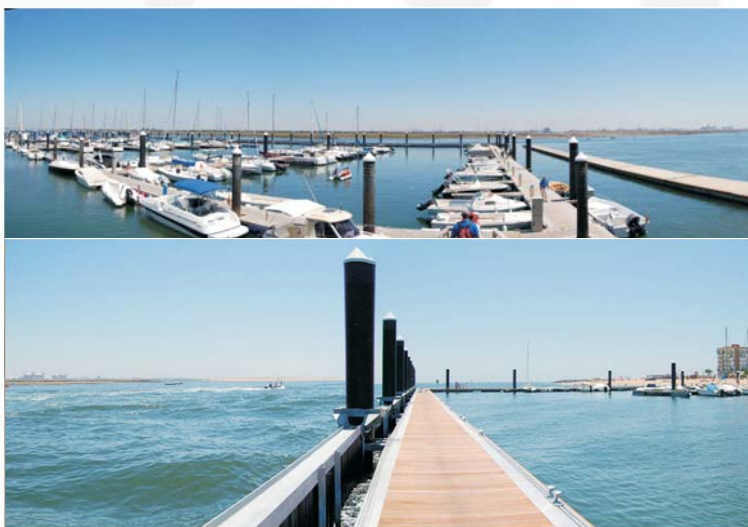
CONSTRUCTION TECHNICAL ASSISTANCE TO PONTOON MANUFACTURERS



MUROS MARINA. GALICIA. SPAIN.



CALDERA' S PORT PIER. COSTA RICA.



PUNTA UMBRÍA MARINA. ANDALUCÍA. SPAIN

CONSTRUCTION TECHNICAL ASSISTANCE TO PONTOON MANUFACTURERS



PONTA DELGADA MARINA. AZORES. PORTUGAL.



SEA WAVE PROTECTION. CABO DE CRUZ. GALICIA. SPAIN.

CONSTRUCTION TECHNICAL ASSISTANCE TO PONTOON MANUFACTURERS

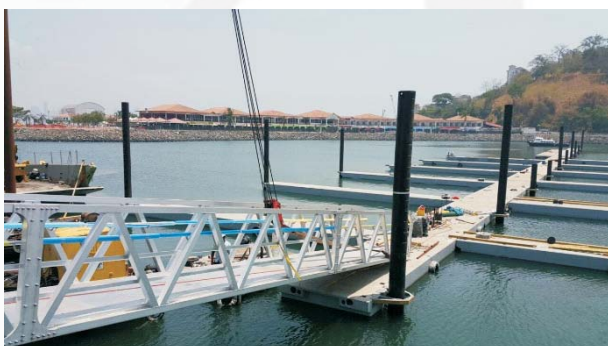


PUERTO PIÑAS. PANAMÁ.



PUERTO BARRIOS. GUATEMALA.

MARINA LA PLAYITA. PANAMÁ.



MARINA VISTAMAR. PANAMÁ.



DESIGN AND CONSTRUCTION PROJECTS FOR PORTS AUTHORITIES

Nº	TITLE	LOCATION	CUSTOMER	ADMINISTRATION	DATE	TYPE						
						PD	AS	DP	CP	CM	TA	
DESIGN AND CONSTRUCTION PROJECTS FOR PORT AUTHORITIES												
1	NEW ORDENATION OF PORTONOVO'S PORT	GALICIA, SPAIN	CONCELLO SANXENXO	PORTOS DE GALICIA	2006	X						
2	MARINA BOUZAS, VIGO	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
3	MARINA CHAPELA, VIGO	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
4	MARINA SAN ADRIÁN DE COBRES, VILABOA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
5	NEW DISTRIBUTION OF MOÑA PORT	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
6	NEW DISTRIBUTION OF CANGAS PORT	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
7	NEW BASSIN IN O GROVE'S HARBOUR	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
8	EXTENSION OF MARINA RIBEIRA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
9	NEW DISTRIBUTION OF PORTOSÍN MARINA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
10	EXTENSION OF CORME MARINA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
11	EXTENSION OF ARES MARINA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
12	EXTENSION OF MUGARDOS MARINA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2006/07			X				
13	NEW DISTRIBUTION IN FOZ MOORINGS	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2008				X			
14	FLOATING BREAKWATER IN TRAGOVE	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2008				X			X
15	EXTENSION AND NEW DISTRIBUTION OF CORGO-MELOXO PORT AND MARINA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2009		X		X			
16	FLOATING BREAKWATER IN VIGO PASSENGER TERMINAL	GALICIA, SPAIN	PORT AUTHORITY OF VIGO	PORT AUTHORITY OF VIGO	2009				X			
17	ALTERNATIVES STUDY FOR SANXENXO MARINA SHELTER	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2010		X					
18	ROWING CLUB IN TAMBRE RIVER. TRAZO	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2010				X			
19	EXTENSION AND NEW DISTRIBUTION OF PORTONOVO PORT AND MARINA	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2011		X		X			
20	NEW MARINA IN PANAMA CITY	PANAMA	UABR	UABR	2012		X	X				
21	NEW FLOATING PONTOON IN RANDE	GALICIA, SPAIN	REDONDELA COUNCIL	PORT AUTHORITY OF VIGO	2015							X
22	CONCRETE BREAKWATER IN PORTONOVO	GALICIA, SPAIN	PORTOS DE GALICIA	PORTOS DE GALICIA	2015	X	X	X	X			

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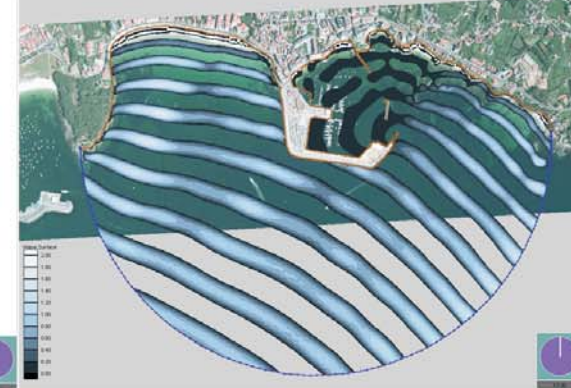
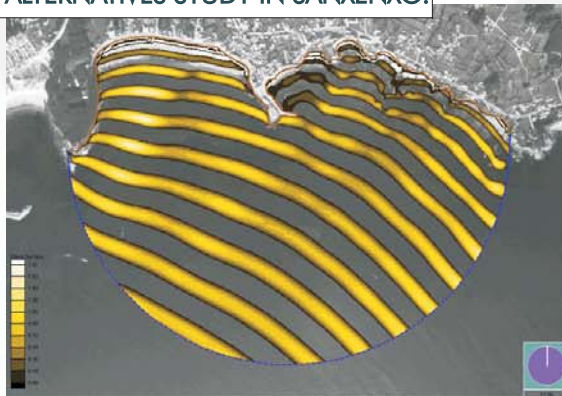
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DESIGN AND CONSTRUCTION PROJECTS FOR PORT AUTHORITIES

ORDENATION OF PORTONOVO S PORT. GALICIA. SPAIN



ALTERNATIVES STUDY IN SANXENXO.



DESIGN AND CONSTRUCTION PROJECTS FOR PORT AUTHORITIES

CANGAS MARINA. GALICIA. SPAIN



PORTOSIN MARINA. GALICIA. SPAIN



RIBEIRA MARINA. GALICIA. SPAIN



ARES MARINA. GALICIA. SPAIN



DESIGN PROJECTS AND PUBLIC TENDERS

Nº	TITLE	LOCATION	CUSTOMER	ADMINISTRATION	DATE	TYPE				
						PD	AS	DP	CP	CM
		DESIGN PROJECTS AND PUBLIC TENDERS								
1	MARINA COMBARRO	GALICIA, SPAIN	PARAGEFA	PORTOS DE GALICIA	2005			X		
2	MARINA CEDEIRA	GALICIA, SPAIN	EXPONÁUTICA	PORTOS DE GALICIA	2005			X		
3	MARINA IN COVELO	GALICIA, SPAIN	NORAI	PORTOS DE GALICIA	2005			X		
4	MARINA TAGHAZOUT	MAROC	FADESA	AGENCE NATIONALE DES PORTS	2006	X				
5	MARINA IN GIJÓN	ASTURIAS, SPAIN	MARINA DEPORTIVA DE GIJÓN	AUTHORITY PORT OF GIJON	2006			X		
6	MARINA KABILA	MARRUECOS	FADESA	AGENCE NATIONALE DES PORTS	2007			X		
7	INNER MARINA IN LORETO	MEXICO	FADESA		2007		X			
8	MARINA VILAGARCÍA	GALICIA, SPAIN	RONÁUTICA MARINAS	AUTORIDAD PORTUARIA DE VILAGARCÍA	2007	X		X		
9	AMPLIACION DEL PUERTO DE ALCUDIA	BALEAR ISLANDS, SPAIN	ALCUDIAMAR	AUTHORITY PORT OF BALEAR ISLANADS	2007			X		
10	ANCHORAGE DESIGN IN BAIONA	GALICIA, SPAIN	RONAUTICA MARINAS	PORTOS DE GALICIA	2007					
11	MARINA EXTENSION IN SANXENXO	GALICIA, SPAIN	NAUTA SANXENXO	PORTOS DE GALICIA	2007			X		
12	MARINA CALA IRIS	MARRUECOS	INVER AVANTE	AGENCE NATIONALE DES PORTS	2007	X				
13	FEASIBILITY STUDY MARINA PARACURÚ	BRASIL	INVER AVANTE		2009		X			
14	MARINA SAN ADRIAN EXTENSION	GALICIA, SPAIN	AZIMUT NORTE	AUTHORITY PORT OF VIGO	2009			X	X	
15	MARINA CENTRAL BASSIN VIGO	GALICIA, SPAIN	RONÁUTICA MARINAS	AUTHORITY PORT OF VIGO	2010	X		X		
16	MARINA RAXÓ, SANXENXO	GALICIA, SPAIN	CLUB NÁUTICO DE RAXÓ	PORTOS DE GALICIA	2010	X	X			
17	MARINA ATUNARA	ANDALUCÍA, SPAIN	MARINAS DEL ESTRECHO	PORTS OF ANDALUCIA	2011					
18	MARINA CANIDO	GALICIA, SPAIN	CLUB MARITIMO CANIDO	PORTOS DE GALICIA	2011	X	X	X		
19	IATE CLUBE. BOTAFOGO	RIO JANEIRO. BRASIL	ALFER METAL		2012	X	X			
20	MARINA EN BIGUAZU	SANTA CATARINA. BRASIL	K MARINA DU BRASIL		2012	X	X	X		
21	JINHAE MARINA	SOUTH KOREA	DONGHWAN MARINE		2012	X	X			
22	MARINA IN ALDÁN	GALICIA, SPAIN	BAQUEIRO GESTION SL	PORTOS DE GALICIA	2014	X	X	X		
23	NEW MARINA IN AL WAKRA	QATAR	COPASA CONSTRUCTION GROUP	QATAR PORTS MANAGEMENT C.	2017	X	X	X		
24	NEW MARINA IN AL RUWAIS	QATAR	COPASA CONSTRUCTION GROUP	QATAR PORTS MANAGEMENT C.	2017	X	X	X		
25	NEW MARINA IN AL KHOR	QATAR	COPASA CONSTRUCTION GROUP	QATAR PORTS MANAGEMENT C.	2017	X	X	X		
26	NEW MARINA IN AL DHAKIRA	QATAR	COPASA CONSTRUCTION GROUP	QATAR PORTS MANAGEMENT C.	2017	X	X	X		

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NOVA MARINA NA RÍA DE ALDÁN. ESPANHA



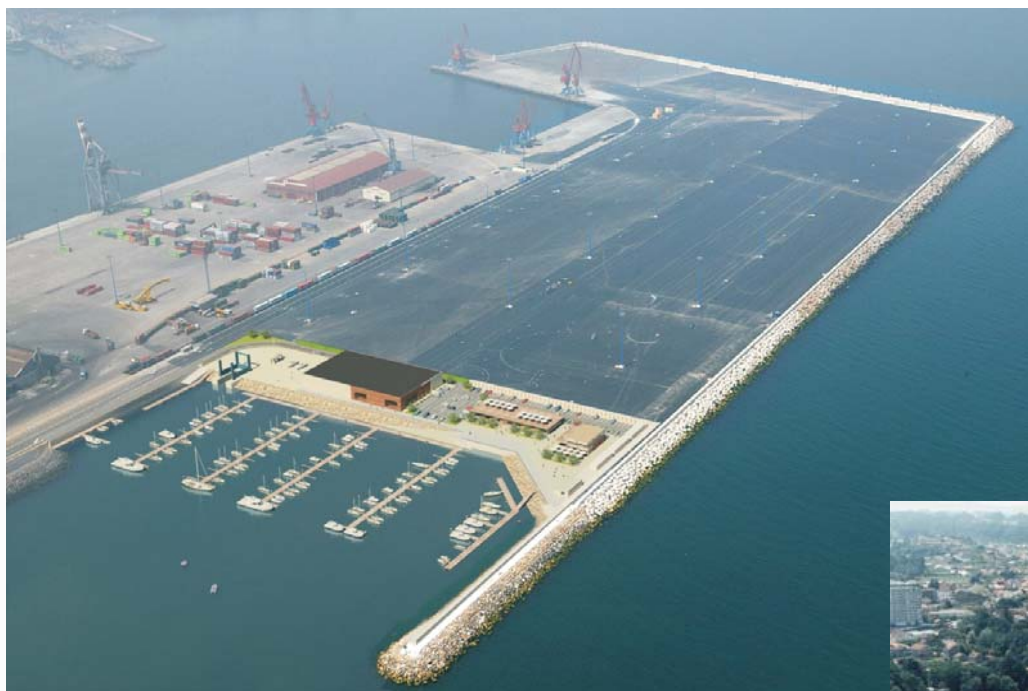


COMBARRO MARINA. GALICIA. SPAIN



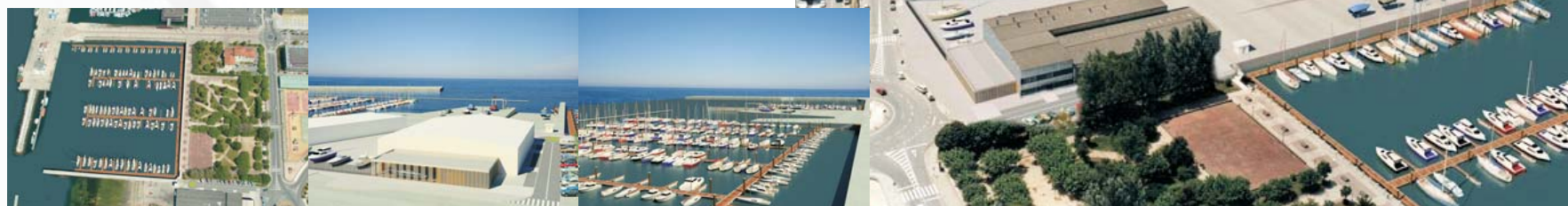
CEDEIRA MARINA. GALICIA. SPAIN

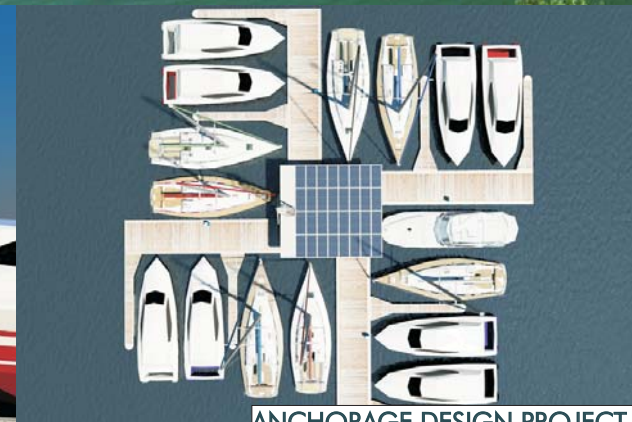
DESIGN PROJECTS AND PUBLIC TENDERS



GIJÓN MARINA. ASTURIAS. SPAIN

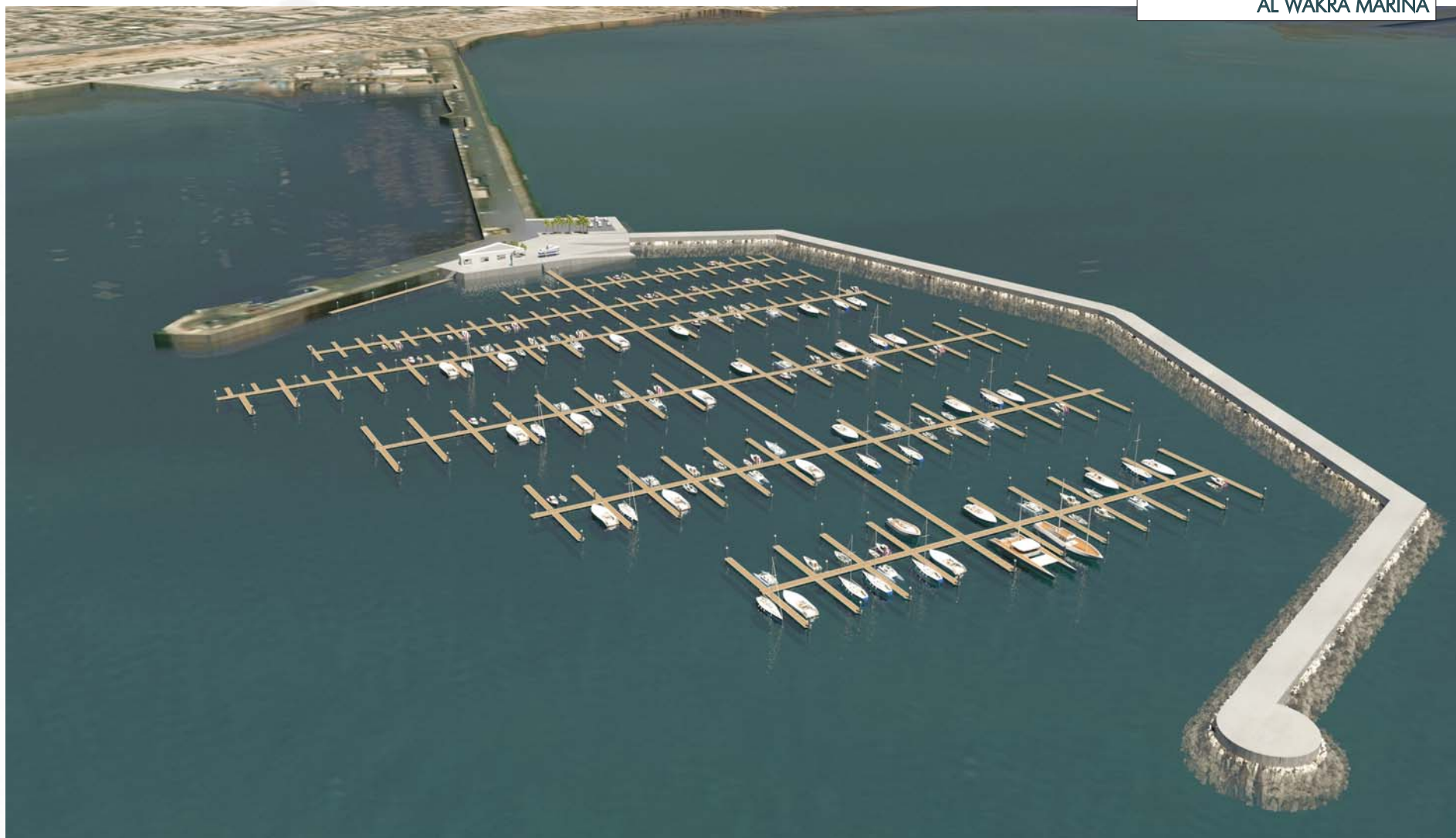
VILLAGARCIA MARINA. GALICIA.





ANCHORAGE DESIGN PROJECT

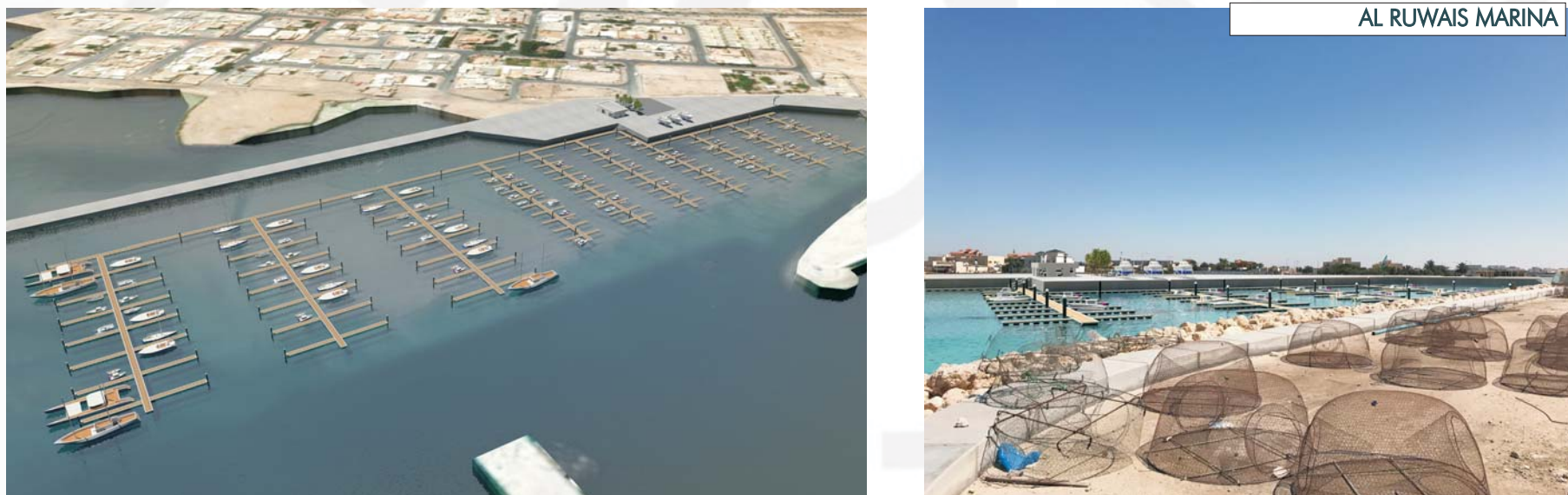
AL WAKRA MARINA



AL KHOR MARINA

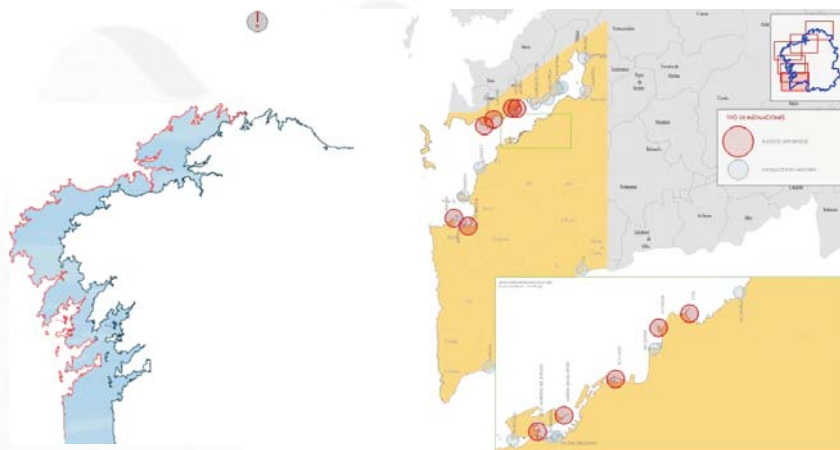


AL RUWAIS MARINA



STRATEGY- MARKET STUDIES- MASTER PLANS

In 2008, the regional harbour authority of Galicia Portos de Galicia contracted Aquatica to develop the marina s masterplan in Galicia.



The development and drafting of this report was divided into 7 phases:

PHASE 1: Strategic policy

PHASE 2: Analysis of the marina s intallations and infrastructures.

PHASE 3: Study of demand

PHASE 4: Proposed locations of the proceedings

PHASE 5 : Performance locations proposal

PHASE 6 : Nautichal tourism Promotion Plan.

PHASE 7: The monitoring plan

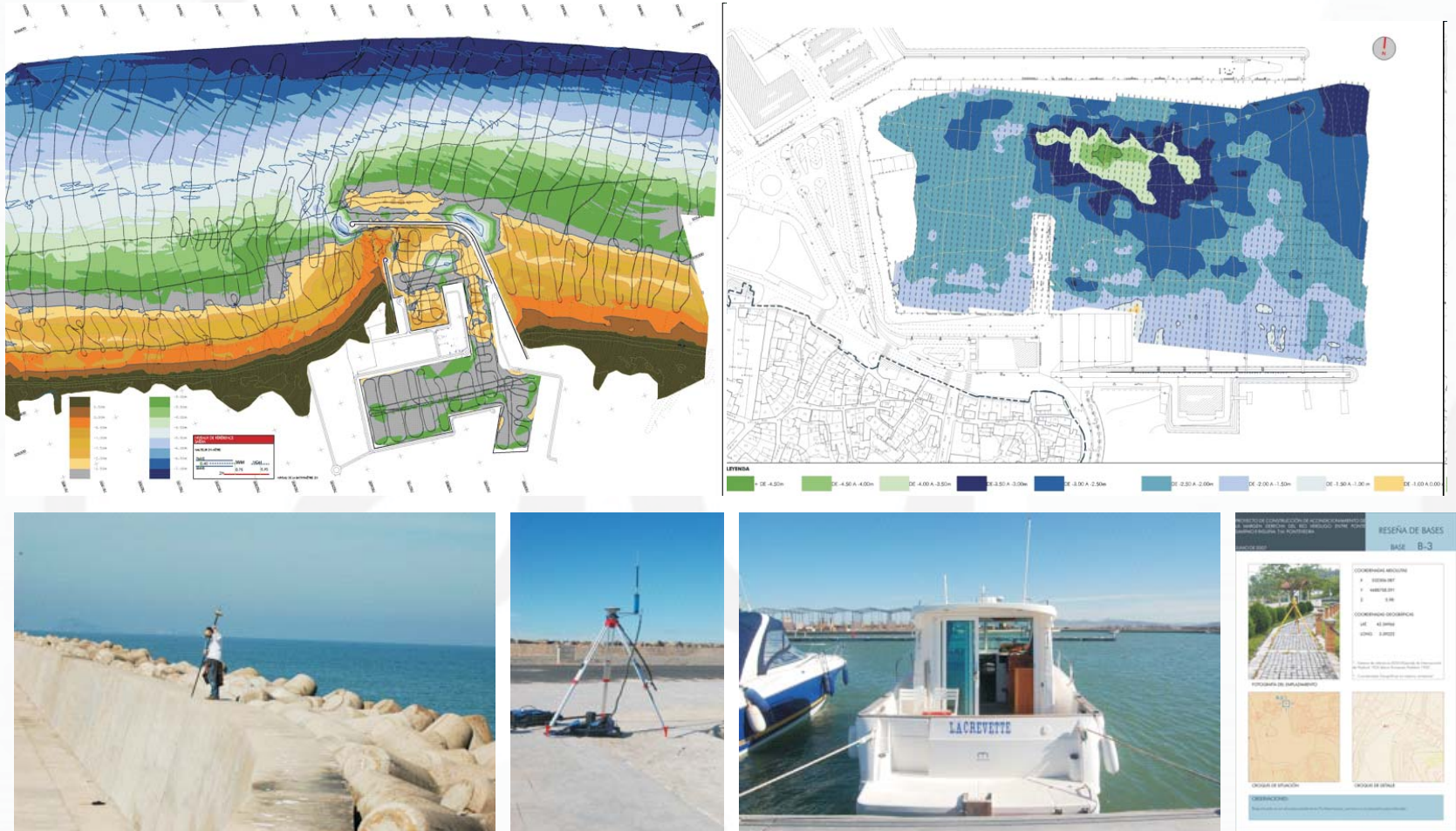
In 2014, the regional harbour authority of Balearic Islands contracted Aquatica to develop the marina s study of demand of Balearic Islands.

ZONA	Nº DE INSTALACIONES			
	Ports de Balears		Ports IB	
	GESTIÓN DIRECTA	GESTIÓN INDIRECTA	GESTIÓN DIRECTA	GESTIÓN INDIRECTA
ZONA I	6	11	4	10
ZONA II	0	0	6	5
ZONA III	1	1	1	5
ZONA IV	0	0	1	1
ZONA V	1	4	2	5
ZONA VI	2	7	1	2
SUBTOTAL 1	10	23	15	28
SUBTOTAL 2	33	43		
TOTAL		76		



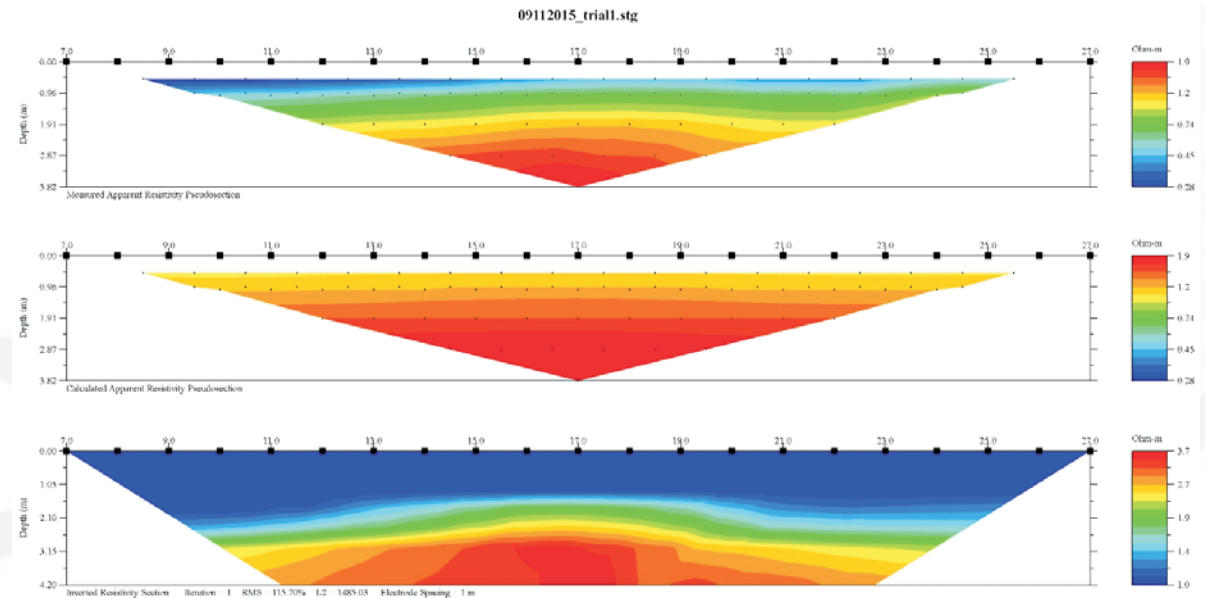
FIELD WORKS - TOPOGRAPHY AND BATHYMETRY

Aquática is equipped with equipment, tools and staff specialised in **topography and bathymetry** survey works. These works has been done in different countries: Spain, Morocco, Cape Vert, Panama...



FIELD WORKS - GEOPHYSICAL SURVEYS

Aquática has experience in geophysical surveys using electrical tomography technique in order to know the soil's nature in coastal projects.



FIELD WORKS - INSTRUMENTATION

Aquática has equipment to offer the client the instrumentation of coastal and maritime processes:

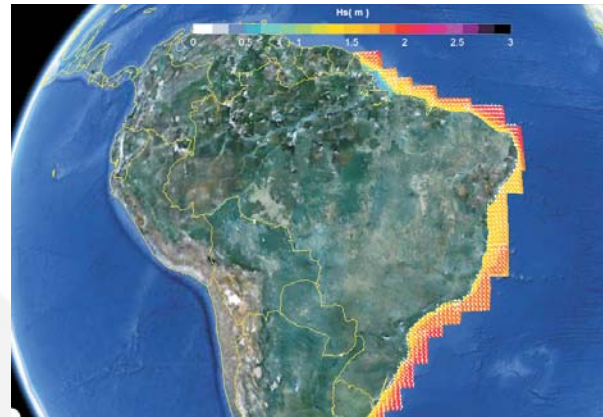
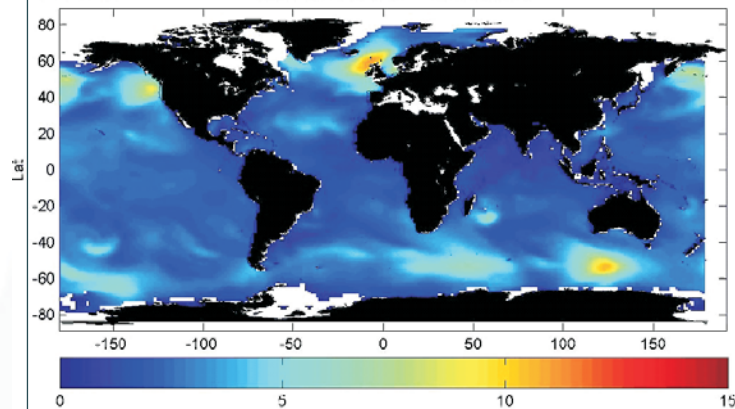
- 2 AWAC with AST, for current profiles and directional wave measures.
- 10 Level sensors
- 2 Ultrasound current measure.
- Loads cells. Strain gauges.



WAVE MODELLING

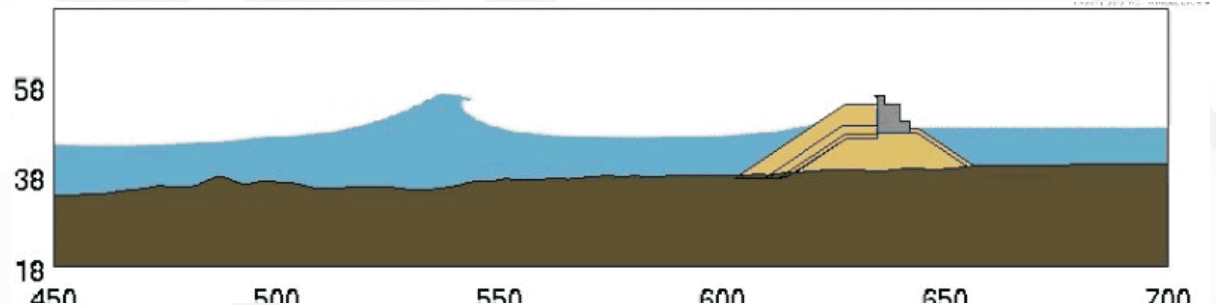
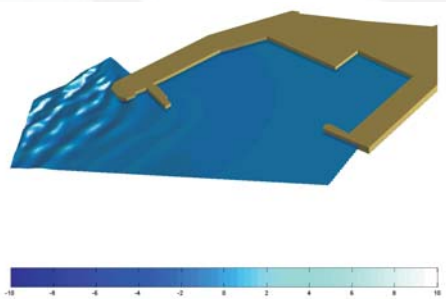
WORLD WIDE WAVE DATABASE

Aquatica, has developed, validated and calibrated a world wide wave database (since 1948). The objective was the generation of a global wind-waves database with a long temporal coverage and statistically homogenous with satellite altimeter observations



WAVE PROPAGATION, AGITATION AND OVERTOPPING CALCULATIONS

Aquatica is specialized in wave propagation and agitation models. Moreover it has some advanced numerical wave flow tools for calculate efforts and overtopping in breakwaters and seawalls.





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